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Votes for Sale: The Logic of Power in Joint-Stock Companies

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The joint-stock company as an institution rests on two major principles. On the one hand, it embodies the logic of collective choice. The ultimate rights to power are vested in a constituency composed of the stockholders. The constituency elects a board which in turn appoints an executive. Decisions are usually taken by majority rule. In these respects, the joint-stock company resembles the democratic polity. On the other hand, it also includes important elements of market exchange. Unlike many other instances in which the logic of collective choice applies, the rights to power can be freely exchanged on a stock market. This paper examines the power implications of this combination of principles using illustrations drawn from the corporate world of Sweden. It argues that although there are similarities between the situation of stockholders and that of voters, the incentives to participate in the exercise of control are rather different. Whereas a model based solely on instrumental rationality is insufficient to explain the participation of voters, it does well in accounting for that of stockholders. Further, the prerequisites of the emergence and maintenance of participatory norms are favorable with respect to voters but unfavorable with regard to stockholders. The paper concludes by considering the implications of the results for the alleged autonomy of managers vis-à-vis the owners and by examining the importance of the exit mechanism as a means of power for minor stockholders.

Theories founded on the notion of purposive actors often conceive of institutions as systems guided by certain formal or informal rules, the content of which determine the opportunities for, and consequences of, any actions taken. These rules are commonly expressed by reference to idealized principles of interaction or coordination, such as bargaining, market exchange, hierarchy, or collective choice. Depending on how the action system formed by the institution is delimited (i.e. the kind of actions and actors we choose to include in it), the rules may often be found to embody elements from several principles of the type exemplified above. Hence, it is rarely useful to identify institutions with any single one of them. Rather, these principles can be seen as the bricks from which institutions are built.

An important part of the challenge of institutional analysis thus conceived consists in specifying what may be termed the logic of the institution, i.e. the particular combinations of principles at work, the opportunities and incentives they provide to the actors, and the way in which the resultant

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An important part of the challenge of institutional analysis thus conceived consists in specifying what may be termed the logic of the institution, i.e. the particular combinations of principles at work, the opportunities and incentives they provide to the actors, and the way in which the resultant

actions combine into system-level properties. In the present article, I explore such a logic as it applies to a particular kind of economic institution, namely the joint-stock company. The emphasis is on opportunities and incentives to exercise and maintain power as based on ownership. In particular, I focus on the power of major versus minor stockholders, of owners versus management, and of voice versus exit. For purposes of illustration, I draw on the characteristics and development of the corporate world of Sweden during the past decade.

Since my primary concern is with an institution that is not among those we conventionally call political, the reader has a right to ask why the article appears in this journal (rather than in one on economics) and in this particular issue. I believe there are at least two satisfactory answers to these questions. The first, and more limited, response is that an important part of the analysis consists in a comparison between the joint-stock company and the democratic polity, i.e. between economic and political institutions. The comparison focuses on the incentives to participate in the processes of collective decision-making offered by both types of institutions and offers conclusions relevant to each of them.

The second, and more far-reaching, answer is that many of the institutions that we conventionally refer to as economic ones are indeed worthy of attention from political scientists irrespective of the side-benefits such attention may bring for the understanding of politics in a narrow sense. Most, if not all, of the nations we are willing to describe as democratic are, to a greater or lesser extent, *pluralist* democracies. Among other things this means that collective action is brought about not only through the state but also via many other types of institutions, including, for example, joint-stock companies.

One implication is that the study of how modern society is governed cannot content itself solely with analyses of those institutions that we conventionally think of as political. Given a pluralist conception of democracy, all types of organizations in which decisions of great importance to large numbers of citizens are taken deserve attention.[1] To argue that some of them, such as joint-stock companies, should be left completely to others – e.g. economists – is, in my opinion, a mistake since the questions and concepts with which an economist would approach them would ordinarily not be the same as those a political scientist would employ. Efficiency, for example, is a notion of far greater concern to the economist than to the political scientist; the opposite holds for the concept of power.

A second implication of the pluralist point of view is that the set of institutions and the types of decisions falling within their respective spheres of competence should not be regarded as fixed and unconditional but rather as subject to continuous debate and review. Economic institutions should neither be nor have been exempt from this requirement. The proper

constitution of economic life belongs among the most perennial of public issues.

Regardless of what standards of evaluation one applies to that issue, however, proposals for or against change of one kind or another require good theories of how the institutions in question actually work. Liberals, for example, often argue that steps should be taken to broaden individual ownership of corporations in order to reduce power concentration in the economy and bring about something resembling a 'share-holder democracy'. Socialists usually dismiss such proposals by reference both to the apparent lack of success in altering the distribution of ownership in the first place and the minimal consequences such redistribution would have on the way companies are in fact controlled. And both camps sometimes argue the need for strong owners with sufficiently high stakes in the company to support it at times of trial and to ensure that the management runs it in the most efficient manner possible. To what extent are these and similar allegations valid, and, if so, under what conditions and on what grounds? This article is prompted by the need for better answers to questions of this kind.

The Major Principles of the Joint-Stock Company[2]

The joint-stock company as an institution rests on two major principles. On the one hand, it follows the logic of collective or social choice. The ultimate rights to control are vested in a constituency composed of the stockholders. The rights are exercised through votes taken at a stockholders' meeting. The outcome is usually determined by simple majority rule. In this regard, the joint-stock company resembles the democratic polity.

On the other hand, the joint-stock company also embodies important elements of market exchange. Unlike many other cases in which the logic of social choice applies, the right to control can be bought as well as sold on a market.[3] Furthermore, the amount of such rights that may be purchased is, as a rule, unrestricted across owners as well as companies, i.e. any one owner may hold any amount of control rights in any number of companies.[4]

In these two regards, the stock market is similar to most other markets. However, two additional circumstances set it apart. First, the stock held in a company actually entitles its owner to two different kinds of rights, namely the right to economic returns in the form of dividends and the right to control in the form of votes. Depending on corporate law and the articles of association of the individual companies, these two rights may or may not be coincident. Two different shares in a given company may give equal rights to economic returns but different rights to votes or equal rights to votes but different rights to returns.[5]

Second, the actors eligible to enter the stock market consist of individuals as well as corporate actors of various kinds (e.g. public agencies, organizations, and companies). While this is true of most other markets as well, it nevertheless makes the stock market peculiar in that the set of goods traded thereby comes to overlap with the set of actors between which trading takes place. A joint-stock company, in other words, may serve as an object as well as a subject of exchange.

In the following I will spell out some of the implications of this particular combination of principles for the exercise, conquest and defense of power in joint-stock companies. I begin by comparing the situation of stockholders to that of voters in order to highlight the way the presence of a market in control rights alters the incentives to exercise power through voice. I then proceed to the exit mechanism and its importance for the ability to safeguard and seize power, and, indirectly, for the way it can be used.

The Problem of Control and the Paradox of Voting

Even with the requisite control rights in hand, there is a price to be paid for controlling a company. To gather information, to process it in order to arrive at a well-founded opinion as to what actions the company should take, and to use one's influence in order to have those actions taken are all costly activities. The willingness of a rational, self-interested actor to pay the price can be seen as the product of two factors: his interest in the outcome and his ability to control it.[6]

As long as each company has a single owner, the utility the owner gains from exercising control will, as a rule, be sufficiently large to make the cost worthwhile. When ownership is shared, however, the incentives to pay the cost are reduced. Some owners may now hold only a small portion of the rights to economic returns. Given a unit size firm, their individual interest in the outcome will therefore be significantly smaller than that of a single actor holding all such rights. Further, their chances of influencing the outcome will also be modest since each of them holds but a small proportion of the rights to control. Because of this dual reduction, the expected utility they can derive from participating in company decision-making may no longer exceed the cost.

The stockholders thereby come to face, at least in part, the same dilemma as that encountered by voters in general elections. This dilemma, first clearly expressed by Downs (1957, 260–276) and reinforced in Tullock's (1967, ch. 7) interpretation, calls attention to the individual calculus of voting. Given the small probability that the vote of a single individual will be pivotal to the outcome and the assumption that the act of voting is not free of cost, it may be seen as individually irrational to vote. The fact that

a majority of the electorate still takes part in most general elections has come to be known as the paradox of voting.[7]

A multitude of empirical observations suggest that this paradox applies with much less force to stockholders than to voters. For example, Björkenwall & Pettersson (1985), in a study of large Swedish corporations, found that only 1.5 percent of the stockholders were represented – either through their personal presence or by proxy – at the average stockholders' meeting. This raises the question of why stockholders and voters do not act in the same fashion although the logic of the situation is in some important regards the same. In order to distinguish some possible answers to that question, it is useful to begin by reviewing the attempts made to resolve the paradox of voting in general elections. The arguments and conclusions put forth in these attempts can then be used as a reference point when contrasting the situation of stockholders with that of voters.

Suggested Solutions to the Paradox of Voting

Two main strategies toward a resolution of the voting paradox can be distinguished. The first consists in modifying the payoff function so as to include factors not considered in the original model proposed by Downs. One possibility is to suggest that there are benefits associated with the act of voting or costs associated with the act of abstaining that are not directly related to the outcome of the election. These costs or benefits might stem from external or internal sanctioning of a norm that prescribes voting. Examples of this line of reasoning can be found in the works of Coleman (1990, 289–292, 825–828), Goodin & Roberts (1975), Riker & Ordeshook (1968) and even Downs (1957, 267–271 and 275, n. 11) himself.

Another solution in the same vein takes into consideration the possibility that individuals are concerned not only with their own well-being but also with that of others. For such altruistic actors, interest in the outcome multiplies to a degree that might make it sufficiently large to motivate voting despite the small probability that the vote would be decisive (Margolis 1982, ch. 7; see also Barry 1990, 328–330).

The second main strategy focuses on the nature of the decision calculus rather than on the particular costs and benefits on which it is based. Ferejohn & Fiorina (1974, 527) point to the difficulties a rational citizen would face when trying to arrive at an estimate of the probability that his own vote will be decisive for the outcome of the election. If all citizens vote, then that probability is very small. Hence, it is rational to abstain. However, if all other citizens reason similarly, then all of them will abstain, in which case the probability that a single vote will be decisive rises to unity. Consequently, it is rational to participate. But again other citizens might arrive at the same conclusion, and so on.

The rational citizen, in other words, must realize that he is not involved in a game against nature in which the behavior of the population can be treated as a fixed parameter, but in a game against other actors subject to the same logic. The calculus of voting must therefore be based on strategic rather than parametric rationality or the electorate would be led into a state of counterfinality, i.e. a situation in which unintended consequences arise as a result of individuals acting on the basis of beliefs that cannot be generalized (cf. Elster 1978 and 1979).

Downs himself (1957, 267) clearly acknowledged this complication, though the fact that he did so seems to have escaped most of his critics and interpreters.[8] His own solution consists in adding another term to the payoff function, a term which expresses 'the long-run participation value', i.e. the benefits that accrue to the citizen for maintaining a viable democracy (Downs 1957, 267–271). This escape route, however, is less than fully satisfactory on two counts. First, it does not really help the citizen to come to terms with the probability calculus described above but merely makes the problem somewhat less pressing. Second, as Barry (1978, 19–23) points out, the solution cannot be as smoothly integrated with the remainder of Downs's theory as Downs himself appears to believe. Voting as a means of maintaining democracy is subject to the same strategic reasoning as voting as a means of winning elections. A citizen may reap the benefits of living in a democratic state even if he himself does not vote as long as a sufficient number of others do. While Downs admits that such is the case, he then goes on to claim that he has demonstrated the willingness of the citizen 'to bear certain short-run costs he could avoid in order to do his share in providing long-run benefits' (Downs 1957, 270). This might well be true, empirically speaking. Theoretically, however, the normative notion of doing one's share goes against the grain of the entire Downsian enterprise, and one looks in vain for any trace of the alleged demonstration.

In contrast to Downs, Ferejohn & Fiorina (1974) attempt to rescue the rationality of the act of voting without recourse to anything but the citizen's short-term self-interest. In order to do so, they look for a way to avoid the probability calculus altogether. To that end, they introduce a special decision rule, the minimax regret criterion. According to this criterion, the citizen should choose the alternative that minimizes his maximum regret. If he does not vote, the maximum regret occurs when the preferred outcome loses by exactly one vote. The size of this regret, i.e. the undiscounted utility difference between outcomes minus the cost of voting, can be assumed to be relatively large. If, on the other hand, he chooses to vote, the maximum regret occurs whenever his vote is not decisive for the outcome. The size of this regret is limited to the small cost of voting. Hence, the rational citizen prefers to vote.

The problem with Ferejohn & Fiorina's argument is that they offer no

rationale for the minimax regret criterion other than the observation that its predictions are not in obvious disagreement with actual turnout levels. Theoretically, the question of why the citizen should favor this particular decision rule over others remains unanswered (cf. Hovi 1987, 129). Why, for example, should he prefer the minimax regret criterion over the maximin principle often deemed appropriate in situations of uncertainty. According to the maximin criterion, the citizen should choose the alternative that maximizes his minimum utility. This would make abstention the rational choice since the minimum payoff from that alternative is 0 whereas the minimum from voting is the cost of participation, i.e. a negative quantity.

To sum up, the debate on the paradox of voting in general elections teaches us three important lessons: (a) that the problem should be treated as a game with strategic others rather than as a game against nature, (b) that solutions to this game based on pure self-interest along remain less than fully convincing, and (c) that, by implication, it appears necessary to introduce some payoff related to the act of voting *per se*, independently of its consequences for the outcome of the election or the democratic system, in order to rescue the rationality of participation. This, in turn, raises the question of why such a payoff – e.g. in the form of a norm prescribing voting – may exist.

Voters vs. Stockholders

Let us now consider how the arguments and conclusions put forth above apply to stockholder constituencies as compared to general electorates. A first important difference is that the voting rights held by stockholders are, as a rule, not equally distributed. In particular, whenever there are a significant number of stockholders whose individual holdings are small, such as in listed companies, there are also one or more major players whose individual holdings are (a) many times larger than those of the average minor player and (b) account for a significant proportion of the total. Even in cases where ownership is extremely dispersed, the major owner still tends to hold at least a few percent. Typically, he commands a considerably larger proportion. In addition, the interest in the outcome – i.e. the amount of capital at stake – is also unequally distributed, and the variations in interest are related to those in voting rights. Although the relationship is not always perfect, due to the existence of shares with different vote value, it is usually a fairly strong one.

These inequalities cause the structure of the participation game for joint-stock companies to depart from that for general elections. The two diagrams in Fig. 1 help us see how. The leftmost diagram shows a game-theoretic reconstruction of the original Downsian model. A single self-interested

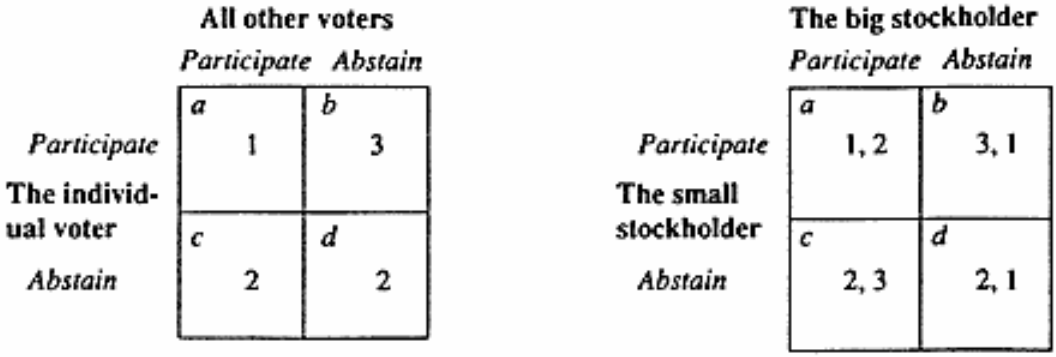

Fig. 1. The Voters' and Stockholders' Games.

voter is pitted against all other voters. The payoff values reflect the way he orders the expected utilities from the four outcomes. His most preferred outcome is that all others abstain and he participates, since in this case he can be sure to determine the election. His least preferred outcome is that both he and all others participate, since in this case the small probability of deciding the election is not sufficient to outweigh the cost of voting. The two remaining outcomes are given the same rank since their internal order are of no importance for the structure of the game. The only significant conditions are that outcome *c* is ranked higher than *a* and *b* higher than *d*.[9]

In the rightmost diagram, by comparison, we have a situation pitting the minor stockholder against the major stockholder. The small stockholder has the same payoff values as the individual voter. The big stockholder deviates by ranking outcome *a* higher than *b*, i.e. he prefers to participate even if the small stockholder does, since he is quite confident that his vote will still be decisive. Under majority rule, he would of course be perfectly certain about this. However, let us assume – for analytical simplicity in later extensions to the *n*-actor case – that a probabilistic decision rule is being used, i.e. a kind of lottery in which an actor's chances of deciding the outcome are proportional to his percentage of the votes cast. Under this assumption, the major stockholder also prefers *c* to *a*, since in the former case his vote will be decisive with certainty whereas in the latter it will not.[10]

In Fig. 2, these two games are extended so as to allow multiple actors as well as variations in the number of actors choosing each strategy. The leftmost diagram shows the situation facing an individual voter or minor stockholder, whereas the rightmost shows that facing a major stockholder. In both cases, the horizontal axis indexes the number of votes being cast by other actors, i.e. the number of other actors choosing to participate weighted by the number of votes they possess. The two lines in each

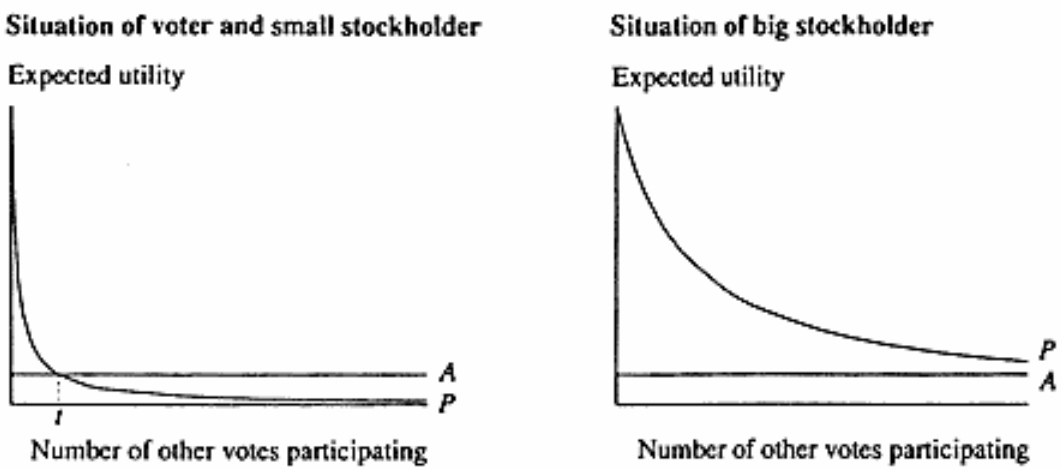

Fig. 2. Schelling Diagrams for the Voters' and Stockholders' Games.

diagram show the expected utility an individual actor of each kind derives from participating (P) and abstaining (A) given that x other votes are cast.

The expected utility of abstention is a straight line parallel to the x-axis, reflecting the fact that this utility is independent of the number and weight of participant actors. The expected utility of participation is a hyperbola reflecting the fact that, under a probabilistic decision rule, an actor's chances of being decisive decline as an inverse function of the number of other votes cast. For the voter and small stockholder, this hyperbola drops below the A-line at a point t where the chances of being decisive are no longer sufficiently high to outweigh the cost of participation. For the big stockholder, it remains above the A-line even when all others participate by virtue of the fact that he (a) has more at stake and (b) retains a significant chance of being decisive even under the worst of circumstances.

Both games have equilibria, all of which are pareto-optimal. For the voters' game, there are multiple equilibria (distinguished only by the identity of the participating actors), all of which occur when exactly t voters participate. The stockholders' game, by contrast, has a single equilibrium provided that the combined shares of big stockholders add up to a number greater than t. This equilibrium is reached when all big stockholders participate and all small stockholders abstain.[11]

Although both games have equilibria, those for the voters' game can be said to constitute a solution only in a very limited sense. In order to reach these equilibria, the actors must either divide the use of the two pure strategies between them, despite the fact that they all face similar situations, or have recourse to mixed strategies. Additionally, under reasonable assumptions concerning the size of the parameters involved (the interest in the outcome of the election, the cost of voting and the total number of

voters), the turnout at equilibrium, t, would be far below the level usually observed in general elections.

In the stockholders' game, by contrast, the equilibrium is rather easily reached. The main stockholders have dominating strategies in favor of participation. The minor stockholders have strong reasons to abstain if, as can realistically be assumed, they are aware of the big stockholders' preferences. One might summarize these shifts by saying that – for big and small stockholders alike – the parametric point of view becomes a more reasonable approximation to the strategic one than it does for voters in general elections. The objection 'what if everybody acted in the same way as I do?' loses a good deal of its force when the situation of the actors is no longer symmetrical.

It is also easy to verify that the equilibrium solution is in good agreement with empirical observations. According to the previously cited study by Björkenwall & Pettersson (1985), only 1.5 percent of the *stockholders* in large listed companies attended the stockholders' meeting. However, the same study simultaneously found that no less than 54 percent of the *votes* were represented. In other words, the likelihood of major stockholders attending the meeting is very high, that of minor stockholders very low, just as the model predicts.

It still remains to be shown that the stockholders' game differs from the voters' game in that one or more actors can realistically be assumed to have a dominating strategy. So far, I have merely asserted that such is the case. Let us now take a closer look at the facts behind that assertion.

In general, a stockholder will have a dominating strategy in favor of participation if, under the worst of circumstances (i.e. when all others vote) his probability of being decisive, P, multiplied by his interest in the outcome of company decision-making, I, exceeds the cost of participation, C. Under a probabilistic decision rule, P equals his share, V, of all votes in the company. Provided that the stockholder appreciates control only as a means to economic ends (rather than as an end in itself), I can be defined as the product of his share of the capital, S, multiplied by the total value of the company in which he is an owner, T, and his outcome differential, D. The outcome differential is, in turn, defined as the difference between the value he expects the entire company to have under his control and the value he expects it to have under the control of others, divided by its current value, T. The requirement for the existence of a dominating strategy can thus be written as:

$$VSTD > C$$

Of these five parameters, the first three are readily knowable. The other two, D and C, are more difficult to estimate. Let us therefore begin by

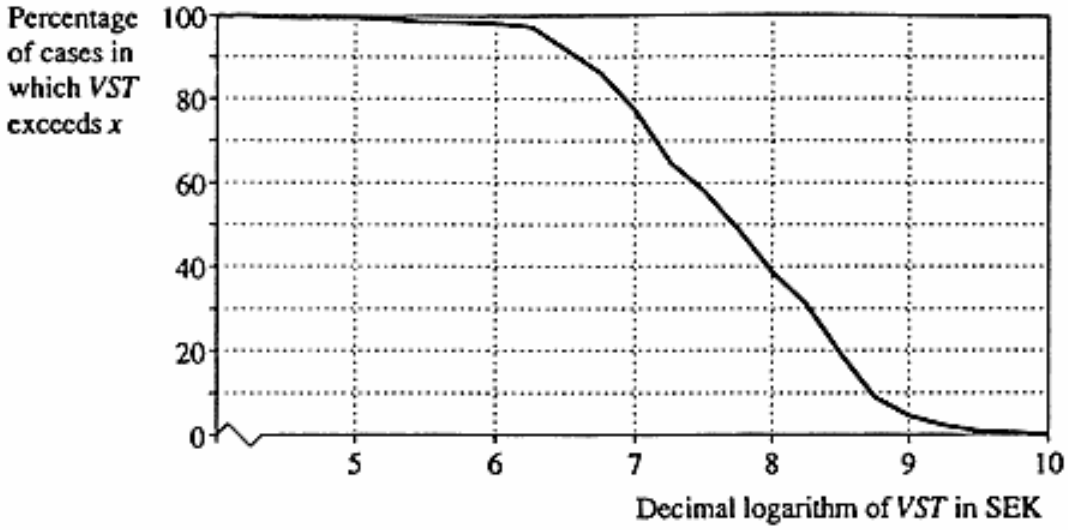

Fig. 3. Distribution of *VST* of Largest Owner. Sample: All listed companies in Sweden as of early 1991 ($n = 219$). Data source: Sundquist 1991.

considering the size of *VST* and then proceed to discuss within what boundaries *D* and *C* must fall in order for the inequality to hold.

Figure 3 shows the distribution of *VST* in a sample containing the largest owner in each of Sweden's listed companies as of early 1991. The largest stockholder in each company was identified as the owner for whom the product of capital and vote share (*VS*) attained the highest value. Each of the owners listed in the data source (Sundquist 1991) were considered separately, i.e. no further amalgamation of closely affiliated actors was undertaken. This means that the estimates given in Fig. 3 can be seen as conservative ones.

As shown in the figure, the values of *VST* are largely contained between one million (10^6) and one billion (10^9) Swedish kronor (SEK). Less than 2 percent of the 219 cases fall below the one million threshold. This means that we can allow *D* to be as small as 10 percent and *C* as high as 100,000 SEK or *D* as small as one percent and *C* as high as 10,000 SEK and still satisfy the requirement for a dominating strategy in nearly all instances.

In judging these estimates, it should be kept in mind that the cost of control can be divided into two parts, only one of which, the cost of attending the stockholders' meeting, must be paid in the game considered here. Further expenses, which may be quite substantial, can be deferred until the owner knows whether he has managed to achieve a sufficiently strong position on the board to make them worthwhile.

Let us finally consider the implications of assuming that company decision-making is based on a probabilistic decision rule rather than on majority rule, as is actually the case. It should first be pointed out that it

is by no means impossible to estimate the actors' actual voting power under the realistic assumption of majority rule. Based on game theory, several well-known procedures – so-called power indices – have been proposed to that end, e.g. the Banzhaf index (Banzhaf 1965, 1966, 1968) and the Shapley-Shubik index (Shapley & Shubik 1954). As shown by these indices, one important consequence of majority rule is that the voting power of each actor is dependent not only on the proportion of votes cast that he himself commands, but on the entire distribution of votes across all participating actors. By implication, the voting power of any one actor varies not only with the number of other votes cast, as in the rightmost diagram of Fig. 2, but also with the way these votes are distributed across the participating actors.

To handle these two types of variation simultaneously is, putting it mildly, a rather complicated task. Not much, I would suggest, is lost by bypassing these complications in the present case, even though it may be both possible and worthwhile to delve deeper into the special problems of voting power under majority rule in other types of investigations, those of joint-stock companies being no exception.[12] Assuming that decisions are taken by means of a probabilistic rule rather than by the majority *usually* results in an under- rather than an over-estimate of the power of the largest owner. Hence, it remains reasonable to conclude that the major owner in virtually all of Sweden's listed companies can be assumed to have a dominating strategy in favor of participation.

Instrumental Rationality vs. Norms

The analysis so far indicates that a model based on pure self-interest and instrumental rationality works well in explaining the participation of stockholders while that of voters remains a puzzle. Let us therefore consider a second significant distinction between the situation of the two collectives, namely the conditions of the emergence of participatory norms.

Many of those who have advanced norms as a possible solution to the paradox of voting have shied away from the question of why such norms might exist. Many have also expressed uneasiness about the *ad hoc* character of such an explanation – e.g. Ferejohn & Fiorina (1974), Tullock (1975), and Hovi (1987) – and its incompatibility with the economic mode of explanation. As Barry (1978, 16) puts it:

> Riker says that people vote because they derive satisfaction from voting for reasons entirely divorced from the hope that it will bring about desired results. This may well be true but it does not leave any scope for an economic model to come between the premises and the phenomenon to be explained.

However, the work of Coleman (1990, chs 10, 11, 30) takes an important

step toward a resolution of these problems. Within a framework retaining a firm footing in the theory of purposive action, Coleman tries to establish the primary conditions of the emergence and maintenance of a norm. He finds two major requirements. The first is that of demand. In Coleman's (1990, 251) view, a demand for a norm arises when 'an action has similar externalities for a set of others, yet markets in rights of control of the action cannot be easily established, and no single actor can profitably engage in an exchange to gain rights of control'. The second condition is that the norm can be realized. The realization of a norm is, according to Coleman, primarily dependent on social structure. More precisely, the actors involved must have social relationships with each other and the network of such relationships must display a considerable degree of closure. Network closure means that if an actor, A, maintains social relationships with two other actors, B and C, there is also a relationship between B and C. This characteristic is, in turn, important for an effective sanctioning system to emerge (Coleman 1990, 269–289).[13]

It is easily seen that the first of the two conditions is met in the case of general elections, at least in countries where legal regulations against the purchase of votes can be upheld. The second is often likely to be satisfied as well, since the focal actors (i.e. those to whom the outcome of the election is of interest) include all, or nearly all, of those with whom any one actor is likely to associate. The sanctioning system receives additional strength from the fact that people tend to associate with those whose political opinions resemble their own.

By contrast, neither condition is likely to be fulfilled in the case of joint-stock companies. Although the actions of a stockholder have externalities for other stockholders, the demand for a norm is weakened by the existence of a market in control rights. Realization is stifled by the small likelihood that subsets of those focal actors whose participation is contingent on the presence of a norm, i.e. the minor stockholders of a company, (a) form extended social networks with a significant amount of closure, (b) are mutually aware that they are all focal actors, (c) discuss company business with each other, and (d) have come to associate partly on the ground that they have similar opinions about company affairs.[14]

By way of summary, a model based solely on instrumental rationality fails to provide clear and reasonably correct predictions of voter participation in general elections. Empirical as well as theoretical considerations point instead toward an explanation in which the decision to vote is, to a significant extent, based on normative considerations.[15] The opposite holds for stockholder participation in company affairs. In this case, a model based soley on instrumental rationality provides clear and empirically satisfactory predictions whereas the conditions of participatory norm development are unfavorable.

It can of course be argued that the distinctions discussed above are not the only ones relevant when trying to explain why the participation of voters differs from that of stockholders. One could point, for example, to the fact that attending a stockholders' meeting is usually more costly (in terms of time as well as direct expenses) than is voting in a general election. Or one could call attention to differences in the extent to which mobilization efforts are made and meaningful alternatives offered.

While it cannot be excluded that these factors are important, two things should be kept in mind when their potential impact is judged. First, the difference in terms of cost is partly a matter of definition. The cost of participating in an election can be seen to involve more than merely the walk to the polling-station or post office. Some preparatory efforts are also required. Although the same is true of stockholders, the presence of such requirements in both cases makes the cost ratio somewhat less dramatic than would first appear to be the case. Further, the benefit of attending a stockholders' meeting is not only that it provides an opportunity to influence company decision-making. It also gives access to information that may be difficult to obtain by other means and may be relevant to another type of decision to which we will return shortly, i.e. whether to keep or sell one's stock.

Second, several of the supplemental factors that separate the two contexts can at least partly be seen as consequences of those subject to primary attention. For example, the public efforts made to reduce the cost of voting in general elections can be seen as a result of the value attached to norm fulfillment in this area. And the relative absence of open competition for the vote of the small stockholders can be seen as an effect of the availability of market alternatives.

The Concentration of Ownership and the Autonomy of Managers

Let us now proceed to consider some potential implications of the above conclusions. According to the classical study by Berle & Means (1932), the degree of ownership concentration is of central importance to the distribution of power between the owners and the management of a firm. The more dispersed the ownership, the weaker the position of the owners. In his analysis of the logic of collective action, Olson (1965:55–56) even points to the big modern corporation with thousands of stockholders as a typical illustration of the problem facing large groups. According to Olson, the reason for the alleged autonomy of the management in such corporations is that none of the stockholders has sufficient incentive to exercise the right to control.

However, Olson, and others who have drawn similar conclusions, tend to ignore three important complications to this argument. First, as previously noted, dispersion rarely, if ever, means total dispersion. Even in companies located at the extreme in this regard, there tends to be one or more owners whose holdings amount to at least a few percent.

Second, while the value of the shares held by these owners might account for a relatively modest proportion of the value of the entire company, it may still be very large in *absolute* terms. As noted by Olson himself, a low level of ownership concentration is primarily a characteristic of *large* corporations. A few percent of the stock in one of these giants often carries a price tag corresponding to the value of several middle-range companies. Hence, as far as interest in the outcome is concerned, these owners certainly have sufficient motivation to exercise their control rights.

Third, one prediction that can be derived from the participation game as outlined above is that companies with dispersed ownership will have a lower participation rate, based not only on the total number of actors but also on the total number of votes. More precisely put, the prediction is that the proportion of votes represented at the stockholders' meeting is a direct function of the proportion of the total stock held by actors whose individual holdings reach a certain threshold, i.e. the point at which the expected benefits of participation outweigh the costs. Theoretically this threshold should be company-specific, depending, among other things, on the total value of the company. Additionally, in companies allowing vote-value differentiation, it should be based on the product of economic interest (capital) and rights to control (votes) rather than on either quantity alone. To test the prediction, however, a rough approximation will do. Figure 4 shows the percentage of votes represented at the stockholders' meeting of the 16 large Swedish corporations studied by Björkenwall & Pettersson (1985) as a function of the percentage of the stock held by major owners, operationally defined as those whose individual holdings amount to at least two percent of the capital or the vote. Clearly, the prediction enjoys strong support. The two quantities show a nearly perfect linear relationship.

This result implies that the position of any given major owner cannot be gauged solely by reference to how large a percentage of the *total* number of votes he commands. The extent to which the remaining votes contained in the total are held by potential participants or non-participants is also of considerable importance. An owner holding, say, 10 percent in a company where all other votes are held by potential participants cannot count on having more than that figure at the stockholders' meeting. If, however, most or all of the remaining votes are held by potential non-participants, his position at the meeting can be expected to be considerably stronger.

Olson's argument is thus flawed on three counts. It fails to observe that even in corporations with highly dispersed ownership, there tends to be

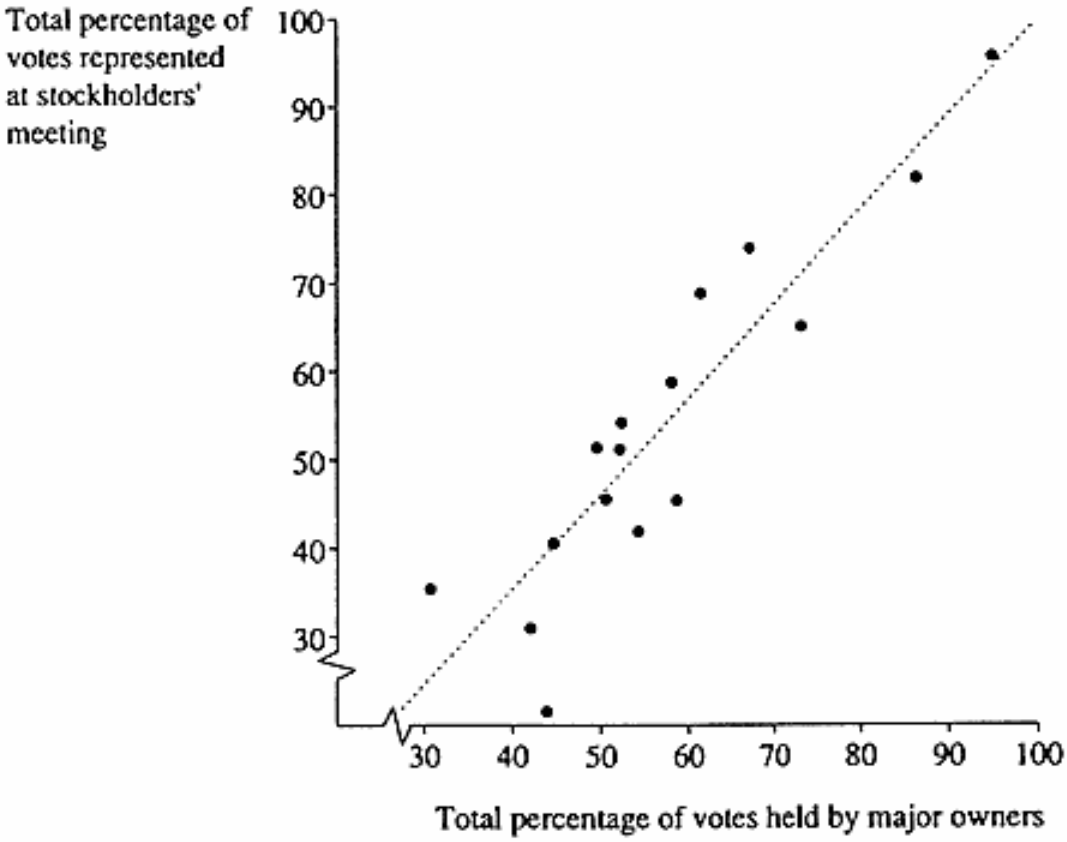

Fig. 4. Total Percentage of Votes Represented at the Stockholders' Meeting as a Function of the Total Percentage of Votes Held by Major Owners ($y = -7.49 + 1.07x$; $r = 0.91$). Sample: The top 16 companies in terms of the value of stock trades at the Stockholm stock exchange in 1984. Data sources: Björkenwall & Pettersson 1985 (percentage of votes represented) and Sundquist 1985 (percentage of votes held by major owners). Major owners are operationally defined as those holding at least two percent of the capital or vote; shares held by closely affiliated actors have been amalgamated in a few cases.

one or more owners with a sufficiently large share to motivate participation. It ignores the fact that corporations with dispersed ownership are typically very large, meaning that a relatively modest proportion of the stock nevertheless may signify a very large interest. Finally, it pays no attention to the strengthening of control enjoyed by those who remain in the running due to the failure of others to participate. Or, to put it still more pointedly, the logic of the situation gives us little ground to believe that the balance of power between owners and management differs between a company A, in which a single owner holds 100 percent of the stock, and a company B, worth ten times as much, in which one owner holds 10 percent and the rest of the shares are dispersed among thousands of smaller owners.[16]

Indeed, it seems that Olson would have been on much firmer ground if he had advanced the owners of a joint-stock company as a typical example

of what he calls a privileged group – i.e. a group in which one or more of the members have sufficient individual incentive to provide a collective good (in this case control of the management) independently of whether the other members contribute or not – rather than as a completely unprivileged ('latent') one. This is not to say that the distribution of ownership is of no consequence to the power relationship between owners and management. For example, if there are several relatively large owners, each having sufficient incentive to bear the cost of control, and all having similar opinions about which general course the company should steer, they might end up bargaining over which of them should do the job. Or, if they have different opinions, they might have difficulties arranging an efficient internal division of labor, thereby giving the management a stronger position than if they were able to divide the job between them. However, the present analysis suggests that further research in this area should (a) take account of the correlation between company size and ownership dispersion and the implications of that correlation for the interest a given percentage of the stock provides to its owner, and (b) keep in mind the distinction between the distribution of ownership among all stockholders as opposed to the distribution among those who are likely to participate in the competition for control.

Exit vs. Voice

The conclusions drawn above might be taken to mean that the power of the minor stockholders is extremely limited, individually as well as collectively. In one sense, such is actually the case. As a rule, the smaller stockholders have weak incentives to give *voice* to their opinions. However, in contrast to voters, stockholders have another accessible alternative at their disposal, namely that of *exit*.[17] If the actions of the major owners and the management do not instill confidence into the minds of the minor stockholders, present or potential, the latter have the option of selling their shares of abstaining from purchases they might otherwise have made. This can be expected to lower the price of the company's stock.

Even if the present major owners have no immediate plans to sell their shares, they have at least two reasons to worry about falling stock prices. The first, which may be called the *capital-supply consideration*, is that it limits their ability to acquire new risk capital through the stock market. Newly issued shares would sell at a low price, which would make the incoming capital costly to the current owners. The second reason, which can be termed the *take-over consideration*, is that a low price might attract the attention of other big players whose plans for the company differ from those of the present major owners and their managers. If the stock price

falls sufficiently, one or more of these major players might be induced to buy up shares from the smaller owners of the company, thereby posing a threat to the current leadership. The motivation of the big player may come from either the belief that the company, under his control, could do better than the current stock price indicates or the belief that the current leadership attaches sufficient value to the control of the company to buy him out at a premium. In a way, the emergence of a big player challenging the present rulers can be seen as an *ex post* market replacement for the failure of the minor stockholders to bring about collective action.

The reasons why these two considerations can be said to vest at least some amount of power with the minor stockholders are rather subtle. They do not, for example, put the small owners in a position to implement their own plan for the company (provided they could agree on such a plan in the first place). Rather, they serve as a restriction on the plans of others. More precisely, they may limit the propensity of the current leadership to act on the basis of interests other than the well-being of the anonymous stockholder.

It follows that the ability of these considerations to safeguard the interests of the minor stockholders is contingent on the logic of anticipated reactions. After the fact, when the price of the stock has already fallen, much of the damage is already done. The small owner might prefer to sell his shares to an emergent big player rather than risk further losses. However, he will still incur a deficit, which the big player may later pocket as a profit. The fact that small owners must put their faith in the logic of anticipation can be seen as the price they pay for not exercising their voting rights.

The extent to which the current leadership has reasons to fear the reactions of the market are dependent on many different conditions. Some of these – e.g. the foreseeable need for stock expansion and the current vote distribution – are company-specific. Others – e.g. the supply and character of business information and the norms regulating business practices – are of a more global nature. Developments in the corporate world of Sweden during the past 10–15 years have altered several of these global conditions in a direction that can be expected to strengthen the incentives of the major owners and their appointed managers to heed the reactions of the minor owners as indexed by the price of company stock.

To begin with, the creation of a central source for ownership data, the Securities Register Center Inc. (Värdepapperscentralen · AB) in the mid-1970s suddenly gave access to a wealth of information that had previously been practically unobtainable even to the board and managers of the company to which it pertained (cf. Wallander 1987, 22–23). This drastically improved the preconditions for potential intruders. Although it simultaneously strengthened the possibilities of successful defense, it never-

theless meant that attacks were now possible along borders where nothing was previously to be feared.

It is often considered an irony of history that the SRC, while created primarily as a service to be used by the minor stockholders, came to be exploited mainly by the bigger ones. Upon closer scrutiny, however, it is not unreasonable to maintain that it nevertheless came to serve the interests of the minor players, albeit in a fashion different from the one originally intended. While the major owners became the primary clients, the information was used in a fashion that strengthened the importance of the exit mechanism as a means of power.

A second significant development is the transformation of a languishing business press, respectful in tone and aimed primarily at a rather narrow circle of professionals, into a flourishing operation bringing richer, more accessible, and more outspoken journalistic accounts to a much wider readership. Swedish business journals have expanded, the daily papers have extended their coverage of business news and the broadcasting media have started new programs dedicated to the world of economics. Although this vast communication apparatus can sometimes be manipulated into distributing strongly misleading information – the widely publicized case of Fermenta being the clearest example (cf. Stockholms Fondbörs 1988, 128–136) – it is still reasonable to think that the overall effect has been to limit rather than expand the leeway of the major players.

A final change of importance is that norms proscribing open power struggle are no longer upheld within the business community. For example, there used to be an unwritten rule prohibiting attempts to take over a company via a public offer to all current stockholders unless an agreement had first been reached with the board or the major owners (SOU 1990:1, 25). In other words, major purchases came about through negotiation rather than through the stock market. The first known violation of this rule occurred in 1979 and attempts at so-called hostile takeovers have since then become increasingly common (SOU 1990:1, 37–41).

Of course, new measures breed countermeasures. A number of steps have been or are being taken in order to strengthen the lines of defense. Two of the institutional preconditions of the joint-stock company described at the outset of this article play a crucial role in making such steps feasible, namely the possibility of separating economic rights from control rights and the ability of joint-stock companies to own other joint-stock companies. The increasing use of vote-value differentiation (Bergström & Rydqvist 1988), the longer, more complex lines of control between owner and ownee (SOU 1990:44, 158–159), and the growing presence of cross-wise and cyclical ownership (SOU 1988:38, 120–131; SOU 1990:44, 158–159) can all be interpreted as reflecting the attempts of the incumbents to safeguard their position in an intensified race for power. Whether in the long run

these attempts will be sufficient to offset the strengthening of the market and the exit mechanism is still too early to say.

Conclusions

The first part of this paper presents two puzzles: (1) why do most citizens participate in general elections although a model based on instrumental rationality gives us little reason to think they would? and (2) why do most stockholders abstain from taking part in stockholders' meetings although the logic they are facing is similar to that confronting voters? Further comparison suggests that the reasons why the instrumental model fails in the one case but provides accurate predications in the other are to be found primarily in two factors, i.e. the existence of a market in control rights and the structure of social relations between the actors involved. The absence of a market in control rights in the case of general elections and the presence of such a market in the case of joint-stock companies give the instrumental participation game a more straightforward solution in the latter case than in the former. The difference in terms of market opportunities simultaneously makes the demand for participatory norms stronger among voters than among stockholders. Finally, the structure of the social network joining voters is more conducive to the realization of such norms than that between stockholders.

In later sections of the article, two potential implications of these results are considered. The first concerns the power of stockholders with respect to company management. Several scholars, including Olson (1965), have argued that in large, modern corporations with relatively dispersed ownership, the stockholders will not be able to control the management since none of them have sufficient incentive to exercise their control rights. However, a closer inspection shows that this argument can be contested on several counts. The ownership distribution, the expected participation rate, and the magnitude of the interests at stake rarely combine in such a way as to support the notion of the omnipotent manager.

The second implication concerns the power of the minor stockholders. The poor participation rate of these owners might be taken to mean that they are completely powerless. However, the presence of a market in control rights provides an alternative means of power, namely that of exit. The development of those global conditions that regulate the efficiency of the exit mechanism gives us reason to think that it has become an increasingly powerful weapon in Swedish corporate life.

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interdisciplinary seminar for financial-relations research at Uppsala University for useful comments on earlier drafts of this paper.

NOTES

1. For an elaborated statement along these lines of thought, see Petersson 1989, especially chapters 7 and 8.
2. Some of the characteristics of joint-stock companies discussed below apply equally well to other forms of companies, e.g. partnerships. Moreover, the principal feature that sets joint-stock companies apart, i.e. the owners' limited responsibility for company commitments, plays no important role in my analysis. Nevertheless, I choose to concentrate on the joint-stock company for two reasons. First, this is the predominant form of association in all but very small companies. Second, many of the mechanisms to be discussed are practically relevant primarily in joint-stock companies, though some of them may theoretically apply to other forms of companies as well.
3. Rights to control can be *bought* in many other circumstances where the logic of social choice applies, e.g. in voluntary organizations and cooperatives of various kinds by paying the membership fee. However, this right can rarely be *sold* again, and if it can, the set of eligible buyers is usually restricted. Further, the right to become a member is often limited to individuals, each of whom may purchase only one membership entitling him or her to a single vote.
4. Special restrictions may apply to certain types of owners, ownees, or owner-ownee combinations. For example, Swedish law currently prevents finance companies (banks, insurance companies, and other financial institutions) from holding more than 5 percent of the vote in any single ownee outside the financial sector. Similar restrictions apply to the holdings of different kinds of funds, e.g. mutual funds, the National Pension Insurance Funds and the (soon-to-be-dismantled) Wage Earners' Funds. A company is also prohibited from directly owning stock in itself or its mother-company if any, except during a transitional stage following a merger or take-over through which previously legal holdings have become illegal.
5. Where law permits differentiation, it usually prescribes that any two shares in a company give equal rights to returns while allowing the number of votes to vary. Such is the case in Sweden as well as several other countries where differentiation is permitted. However, the opposite solution also exists, for example in Switzerland, where any two shares in a company must entitle to the same number of votes while rights to returns may vary. For an overview of cross-national variations in legal regulations, see SOU 1986:23, 93–107.
6. For want of a better alternative, I use masculine pronouns to refer to actors for whom no identity, either as a man or as a natural person, is intended.
7. There are actually two different situations commonly referred to as paradoxes of voting. The other is Condorcet's paradox, which states that collective choices produced by majority rule may be inconsistent, although each individual has a consistent set of preferences. Arrow (1963) proved that this condition extends to any rule for collective decision-making that fulfills a set of reasonable criteria. One important difference between the two paradoxes is that the one expressed by Downs consists in a discrepancy between rationalistic theory and empirical facts, whereas that of Condorcet and Arrow is a strictly theoretical puzzle.
8. Many of the contributors ignore the strategic complication altogether (e.g. Tullock 1967 and Riker & Ordeshook 1968). Those who have tried to grapple with it (e.g. Ferejohn & Fiorina 1974 and Hovi 1987) typically place the strategic view in contradistinction to Downs's own treatment of the problem.
9. One could argue that *c* should be ranked higher than *d* on account of the benefits attached to the maintenance of a democratic system. I have chosen to omit the system-maintenance consideration in all of the games since its presence causes additional complications without any tangible benefits, i.e. the structure remains essentially the same.

10. Since the assumption of a probabilistic decision rule is clearly not a realistic one, we will have reason to return at a later stage to the virtues of analytical simplicity that motivate its use in the present context and to its consequences for the results.
11. The requirement that the total number of votes held by major stockholders be equal to or greater than t for the game to have a single equilibrium is a consequence of the assumption that a probabilistic decision rule is used. Under majority rule, the game can have a single equilibrium without this requirement being met.
12. For examples of how game-theoretic power indices may be used in analyzing ownership-based power over joint-stock companies, see for example Rydqvist 1987 and Westholm 1991.
13. Cf. Karlson's discussion of "community" in this volume of SPS. While Coleman emphasizes network closure only, Karlson also points to the importance of links bridging different communities as a means of norm diffusion. One difficulty in reconciling these two aspects of network structure is that they are at partial odds with each other for any given level of network density. In other words, a network which is ideal with respect to the emergence and maintenance of a norm is not likely to be ideal for norm diffusion and vice versa.
14. One important exception may be companies in which a significant proportion of the stock is held by the employees. In this case, it is not unreasonable to think that several of the social conditions for norm realization can be met.
15. This should not be understood as saying that the act of voting and other forms of political participation are only a matter of avoiding internal or external sanctioning of a negative kind. One of several virtues of Coleman's (1990) conception is that it comprises the notion of zeal, i.e. the overfulfillment of a norm as a result of positive sanctions.
16. One might of course argue that, in the latter case, the managers can try to mobilize the small owners in a battle against the major ones. However, this course of action would be extremely risky since the major owner, who can be assumed to control the board, can fire the managers on the spot. This would leave the managers without a job and without access to company resources for running the campaign. Since the stakes are high and the chances of success limited, the managers must have very strong motivations as well as access to resources apart from those they control by virtue of their position as managers, e.g. a strong public image that they could exploit via the media.
17. Note that voters do have exit options as well, e.g. emigration. The difference compared to the situation of stockholders is one of accessibility. Voter exit is typically associated with very large costs and/or risks.

REFERENCES

Arrow, K. J. 1963 (1951). *Social Choice and Individual Values* (2nd ed.). New York: Wiley.

Banzhaf, J. F., III. 1965. 'Weighted Voting Doesn't Work: A Mathematical Analysis', *Rutgers Law Review* 19, 317–343.

Banzhaf, J. F., III. 1966. 'Multimember Electoral Districts – Do They Violate the "One Man, One Vote" Principle', *Yale Law Journal* 75, 1309–1388.

Banzhaf, J. F., III. 1968. 'One Man, 3,312 Votes: A Mathematical Analysis of the Electoral College', *Villanova Law Review* 14, 304–332.

Barry, B. 1978 (1970). *Sociologists, Economists and Democracy*. Chicago: The University of Chicago Press.

Barry, B. 1990 (1965). *Political Argument. A Reissue with a New Introduction*. New York: Harvester Wheatsheaf.

Bergström, C. & Rydqvist, K. 1988. 'Varför äger kontrollaktieägare B-aktier?', *Skandinaviska Enskilda Banken Kvartalsskrift* no. 1, 12–18.

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Arrow, K. J. 1963 (1951). *Social Choice and Individual Values* (2nd ed.). New York: Wiley.

Banzhaf, J. F., III. 1965. 'Weighted Voting Doesn't Work: A Mathematical Analysis', *Rutgers Law Review* 19, 317–343.

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Banzhaf, J. F., III. 1968. 'One Man, 3,312 Votes: A Mathematical Analysis of the Electoral College', *Villanova Law Review* 14, 304–332.

Barry, B. 1978 (1970). *Sociologists, Economists and Democracy*. Chicago: The University of Chicago Press.

Barry, B. 1990 (1965). *Political Argument. A Reissue with a New Introduction*. New York: Harvester Wheatsheaf.

Bergström, C. & Rydqvist, K. 1988. 'Varför äger kontrollaktieägare B-aktier?', *Skandinaviska Enskilda Banken Kvartalsskrift* no. 1, 12–18.

Berle, A. A. & Means, G. C. 1932. *The Modern Corporation and Private Property*. New York: Macmillan.

Björkenwall, R. & Pettersson, L. 1985. 'Makt och ägande i näringslivet', Stockholm: Swedish Trade Union Confederation (LO), Unpublished report.
Coleman, J. S. 1990. *Foundations of Social Theory*. Cambridge: The Belknap Press of Harvard University Press.
Downs, A. 1957. *An Economic Theory of Democracy*. New York: Harper & Row.
Elster, J. 1978. *Logic and Society. Contradictions and Possible Worlds*. Chichester: John Wiley & Sons.
Elster, J. 1979. *Ulysses and the Sirens. Studies in Rationality and Irrationality*. Cambridge: Cambridge University Press.
Ferejohn, J. A. & Fiorina, M. P. 1974. 'The Paradox of Not Voting: A Decision Theoretic Analysis', *American Political Science Review* 68, 525–536.
Goodin, R. E. & Roberts, K. W. S. 1975. 'The Ethical Voter', *American Political Science Review* 69, 916–917.
Hovi, J. 1987. 'The Contradictions of Rational Abstention: Counterfinality, Voting, and Games without a Solution', *Scandinavian Political Studies* 10, 125–150.
Margolis, H. 1982. *Selfishness, Altruism, and Rationality*. Cambridge: Cambridge University Press.
Olson, M. C. 1965. *The Logic of Collective Action*. Cambridge: Harvard University Press.
Petersson, Olof. 1989. *Makt i det öppna samhället*. Stockholm: Carlsson Bokförlag.
Riker, W. H. & Ordeshook, P. C. 1968. 'A Theory of the Calculus of Voting', *American Political Science Review* 62, 25–42.
Rydqvist, K. 1987. *The Pricing of Shares with Different Voting Power and the Theory of Oceanic Games*. Stockholm: The Economic Research Institute of the Stockholm School of Economics.
Shapley, L. S. & Shubik, M. 1954. 'A Method of Evaluating the Distribution of Power in a Committee System', *American Political Science Review* 48, 787–792.
SOU 1986:23. *Aktiers röstvärde. Betänkande från röstvärdeskommittén*. Stockholm: Liber-Allmänna Förlaget.
SOU 1988:38. *Ägande och inflytande i svenskt näringsliv. Huvudbetänkande från ägarutredningen*. Stockholm: Allmänna Förlaget.
SOU 1990:1. *Företagsförvärv i svenskt näringsliv. Betänkande från ägarutredningen*. Stockholm: Allmänna Förlaget.
SOU 1990:44. *Demokrati och makt i Sverige. Maktutredningens huvudrapport*. Stockholm: Allmänna Förlaget.
Stockholms Fondbörs. 1988. *Fermenta. Fakta och erfarenhter. En rapport till Stockholms Fondbörs*. Stockholm: Stockholms Fondbörs.
Sundquist, S. 1985. *Ägarna och makten i Sveriges börsföretag 1985*. Stockholm: Förlags AB Marieberg.
Sundquist, S. 1991. *Ägarna och makten i Sveriges börsföretag 1991*. Stockholm: Dagens Nyheters Förlag.
Tullock, G. 1967. *Toward a Mathematics of Politics*. Ann Arbor: The University of Michigan Press.
Tullock, G. 1975. 'The Paradox of Not Voting for Oneself', *American Political Science Review* 69, 919.
Wallander, J. 1987. 'Korsägande, röstvärden och makten över företagen', in Hägg, I., ed., *Att äga stora företag*. Stockholm: SNS Förlag.
Westholm, A. 1991. 'Power and Ownership: A Theoretical Model', Paper presented at the Second European Conference on Social Network Analysis, Paris.

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NOTES

1. For an elaborated statement along these lines of thought, see Petersson 1989, especially chapters 7 and 8.
2. Some of the characteristics of joint-stock companies discussed below apply equally well to other forms of companies, e.g. partnerships. Moreover, the principal feature that sets joint-stock companies apart, i.e. the owners' limited responsibility for company commitments, plays no important role in my analysis. Nevertheless, I choose to concentrate on the joint-stock company for two reasons. First, this is the predominant form of association in all but very small companies. Second, many of the mechanisms to be discussed are practically relevant primarily in joint-stock companies, though some of them may theoretically apply to other forms of companies as well.
3. Rights to control can be *bought* in many other circumstances where the logic of social choice applies, e.g. in voluntary organizations and cooperatives of various kinds by paying the membership fee. However, this right can rarely be *sold* again, and if it can, the set of eligible buyers is usually restricted. Further, the right to become a member is often limited to individuals, each of whom may purchase only one membership entitling him or her to a single vote.
4. Special restrictions may apply to certain types of owners, ownees, or owner-ownee combinations. For example, Swedish law currently prevents finance companies (banks, insurance companies, and other financial institutions) from holding more than 5 percent of the vote in any single ownee outside the financial sector. Similar restrictions apply to the holdings of different kinds of funds, e.g. mutual funds, the National Pension Insurance Funds and the (soon-to-be-dismantled) Wage Earners' Funds. A company is also prohibited from directly owning stock in itself or its mother-company if any, except during a transitional stage following a merger or take-over through which previously legal holdings have become illegal.
5. Where law permits differentiation, it usually prescribes that any two shares in a company give equal rights to returns while allowing the number of votes to vary. Such is the case in Sweden as well as several other countries where differentiation is permitted. However, the opposite solution also exists, for example in Switzerland, where any two shares in a company must entitle to the same number of votes while rights to returns may vary. For an overview of cross-national variations in legal regulations, see SOU 1986:23, 93–107.
6. For want of a better alternative, I use masculine pronouns to refer to actors for whom no identity, either as a man or as a natural person, is intended.
7. There are actually two different situations commonly referred to as paradoxes of voting. The other is Condorcet's paradox, which states that collective choices produced by majority rule may be inconsistent, although each individual has a consistent set of preferences. Arrow (1963) proved that this condition extends to any rule for collective decision-making that fulfills a set of reasonable criteria. One important difference between the two paradoxes is that the one expressed by Downs consists in a discrepancy between rationalistic theory and empirical facts, whereas that of Condorcet and Arrow is a strictly theoretical puzzle.
8. Many of the contributors ignore the strategic complication altogether (e.g. Tullock 1967 and Riker & Ordeshook 1968). Those who have tried to grapple with it (e.g. Ferejohn & Fiorina 1974 and Hovi 1987) typically place the strategic view in contradistinction to Downs's own treatment of the problem.
9. One could argue that *c* should be ranked higher than *d* on account of the benefits attached to the maintenance of a democratic system. I have chosen to omit the system-maintenance consideration in all of the games since its presence causes additional complications without any tangible benefits, i.e. the structure remains essentially the same.