

THE ECONOMICS OF FIRM SIZE, MARKET STRUCTURE AND
THE MARKET FOR POLITICAL INFLUENCE

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(ABSTRACT)

This dissertation investigates the question of whether political influence in the business sector is distributed disproportionately among firms in a manner which favors large economic units. The factors which are likely to be sources of variation in the market for political influence faced by economic units of different sizes are isolated and studied.

Relying upon pre-existing research by scholars in the area of public choice, a production cost function for legislative political influence is developed. It is demonstrated that supply conditions are likely to vary between corporate units of different sizes favoring small firms.

An analysis of the demand for political influence is then presented in which government is treated as an intermediate input in the firm's production function. It is argued that forms of influence may not only serve to alter a firm's cost and demand conditions, but that the economic unit may also enjoy a reduction in the bounded rationality problems which it faces. These internal transactions costs are not generally reduced to a significant degree when influence is produced for the large firm because of the non-durable nature of legislation created for conspicuous corporate units. Thus, the value

of the marginal product of political influence is inversely related to firm size.

The analysis is then subjected to empirical testing. The results suggest that political influence and regulated firm size are positive and disproportionately related. Across unregulated firms a proportional relationship appears to exist.

Finally, the policy implication of the results are explored. The conclusions suggest that policy implemented to reduce the extent of special interest legislation for business by limiting the growth of firms may not only be unsuccessful, but will likely lead to serious market distortions.

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CHAPTER 1

ECONOMIC POWER AND BUSINESS POLITICAL INFLUENCE: AN OVERVIEW

I. Introduction

Market structure and its impact upon efficiency has long been a traditional subject of study in the field of economics under the sub-heading of industrial organization. The superiority of competitive markets from an efficiency standpoint is recognized not only by economists, but the courts. The intent of anti-trust policy has been geared toward the preservation of competition and an environment which is conducive to that state of the world. The market structure, conduct and performance paradigm explored at great depth by economists provides a strong economic rationale for policy designed to reduce or at least inhibit monopoly elements in the economy. Increases in industrial concentration are accompanied by increases in economic power. Similarly, increases in firm size unaccompanied by industry expansion will result in greater concentration and economic power. Mergers between firms which promise to greatly increase concentration have been banned on economic grounds. Most economists would not object to any policy which promises to promote efficiency and prevent the acquisition of monopoly power. However, not all economists agree about the source of monopoly power and therefore, there is not general agreement about policy prescriptions.

Rather recently the implications of the market structure, conduct and performance paradigm has been extended to provide conclusions regarding industry characteristics and the acquisition of political power. The logic

of the extension of the industrial organization framework appears to be straight forward. Increases in concentration and firm size center a greater amount of economic resources in the hands of fewer agents effectively increasing the economic power of these agents. A disproportionately great amount of economic power will then form the basis for the accumulation of a disproportionately great amount of political power. The purpose of this dissertation is to examine this relationship between market structure characteristics, particularly firm size, and the acquisition of political power. In the next section I will discuss the roots of the "market structure-political influence" hypothesis. Section III will present a brief explanation of why I consider the study to be of importance. Finally, an outline of what is to follow in the rest of the study will be the topic of the last section.

II. The Roots of the Market Structure-Political Influence Hypothesis

The study of interest group behavior is not new, nor did it originate with economists. The American beginnings of a theory of interest groups and the "public interest" can be traced back to the Federalist Papers¹ of James Madison in 1778.² Although Madison viewed interest group formation as inherently evil, he also expressed the view that the great variety of interests formed an effective system of checks and balances that tended to

¹The Federalist Papers, nos. 10 and 51.

²Norman J. Ornstein and Shirley Elder, Interest Groups, Lobbying and Policymaking (Washington, D.C. Congressional Quarterly Press, 1978), p. 9.

prevent any one group from extending its influence beyond reasonable limits.³

The theory of interest groups and the political process was for many years consistent with the Madisonian views.⁴ The activities of competing pressure groups was thought to produce what has been coined by James Buchanan and Gordon Tullock as a "pluralistic equilibrium" of interest representation.⁵ Disproportionate representation across special interest groups is not problematical from this perspective. Consequently, if the activities of one organization impeded an individual's goals as represented by another organization, he would attempt to halt those activities. However, this reasoning has been seriously questioned. In the words of James M. Buchanan and Gordon Tullock, "The fact that the member of a trade association or a trade union is also a consumer will not effectively restrain his activities in seeking differential advantage for his particular producer group because of the predominant importance of his producer role with respect to any single decision that the government might confront relating to the specific industry."⁶

³Ibid.

⁴The studies by Bently and Truman are representative of this view. See Arthur F. Bently, The Process of Government (San Antonio, Texas: Principia Press, 1949) and David Truman, The Government Process (New York: Alfred A. Knoph, 1951).

⁵James M. Buchanan and Gordon Tullock, The Calculus of Consent (Ann Arbor: University of Michigan Press, 1962), p. 288.

⁶Ibid.

Further support of the "pluralistic equilibrium" hypothesis rests on an assumption of a high degree of competition in the market for political representation. If the activities of an existing interest-group promise a disproportional amount of political representation for the existing group, those with opposing interests will also organize. The competing behavior will produce an equilibrium in which the interests of all affected parties will be equally or near-equally represented.⁷ However, Mancur Olson's contributions suggest that the opposing interests may be unable to organize because of the "free-rider" problem and thus equilibrium might not be achieved.⁸

The Logic of Collective Action by Mancur Olson cast shadows upon the "pluralistic equilibrium" argument.⁹ The existence of an equilibrium among interests rests upon the assumption that groups with common interests will have equal abilities to organize for the purpose of obtaining political representation. Olson's analysis suggests that this is not the case. The ability of a group to organize to secure a common goal is an inverse function of the size of the group.¹⁰ Thus, extremely large groups will not enjoy a proportional amount of political representation.

⁷Arthur F. Bentley, The Process of Government (San Antonio, Texas: Principia Press, 1949) and David Truman The Governmental Process (New York: Alfred A. Knoph, 1951).

⁸Mancur Olson, The Logic of Collective Action (Cambridge, Massachusetts: Harvard University Press, 1965).

⁹Ibid.

¹⁰Ibid.

Olson was not the first to question the explanatory value of the "interest-group-equilibrium" hypothesis. E. E. Schattschneider, a political scientist, claimed that wealth and political representation were positively related.¹¹ For Schattschneider wealth is an important determinant for two reasons. First, in the Schattschneider framework, the ability to influence the political mechanism is a positive function of the level of expenditures. Second, he implies that education which is presumably a positive function of wealth is also an important determinant of the propensity of individuals to take an active role in politics. Schattschneider concludes that political representation will be skewed in favor of the upper-class.

The "interest-group-equilibrium" theory is no longer widely accepted among contemporary group theorists. Rather, it is generally agreed that the nature of interest group formation coupled with the incentives of governmental agents will result in an unequal distribution of political power. Furthermore, business corporate political interests may enjoy an advantage in securing representation over other diverse interest groups. Certainly the corporate sector controls vast amounts of economic resources and thus possesses the necessary wealth to make their interests heard. Additionally business interest groups are generally composed of relatively small numbers which suggests that organizational difficulties should not be insurmountable. However, this dissertation is not concerned with the relative abilities of the corporate and non-corporate sectors to manipulate

¹¹E. E. Schattschneider, Politics, Pressure and The Tariff (New York: Prentice Hall, 1935) and The Semisovereign People (New York: Holt, Rinehart and Winston, 1960).

the political process. It is taken for granted that business enterprises do possess political power and no attempt will be made to address the question of whether this power is too great relative to the non-business sector. Rather, this study will focus attention upon the relative abilities of different members of the corporate sector to influence public policy.

How then can the general theory of interest groups be extended to provide a basis for the expectation that differences in market characteristics will be a source of variation of business political power? Again, differences in wealth and group size provide the answer. Larger firms will generally possess greater amounts of resources. Also, larger firm size is usually thought to imply fewer organizational difficulties when political influence is being provided collectively. Consider two groups of equal size as measured by wealth. One is known to be composed of firms whose average size is greater than the other. This implies that the group with larger firms has fewer members and an application of contemporary interest group theory suggests that increasing firm size across business groups can be expected to be accompanied by greater political power. This dissertation will address this "firm-size-political influence" hypothesis.

III. The Importance of the Study

Before I explain my reasons for believing that the "firm-size-political influence" question is of importance I will very briefly discuss how my interests in this specific topic originated.

In 1979, as head of the Senate Anti-Trust Committee, Senator Edward Kennedy along with Senator Metzenbaum sponsored a bill (S-600) which would have prohibited mergers among firms exceeding a certain size. The measure

would have placed very serious limitations on the ability of firms to merge. Specifically, firms with assets valued at \$200 million or sales of \$350 million would have been required to prove that a proposed merger would be pro-competitive or efficiency-enhancing. The same requirements would apply to firms with \$100 million or more in assets in cases in which the combined assets of the merging firms totaled more than \$1 billion. For larger firms the terms were more restrictive. The proposed legislative measure would have banned mergers between companies with either \$2 billion in assets or sales levels of \$2.5 billion. Had it passed, this bill would have effectively prohibited mergers between large corporations. Although the Kennedy bill was quite extreme, it was only one of several governmental attempts to control corporate size. What is unique about the legislation proposed by Kennedy is that the strongest support for it was not framed in the familiar economic arguments. Rather the support focused on the curtailment of the growth of corporate political power. Michael Pertschuk, then Chairman of the Federal Trade Commission, expressed his concern for increasing firm size and simultaneously his support for the Kennedy-Metzenbaum legislation this way: "Unrestrained conglomeration could conceivably result in . . . an enormous aggregation of economic, social, and political power in the hands of a small number of corporate leaders, responsible . . . only to themselves."¹²

Professor Tullock became involved in researching the proposed relationship between firm size and political power when he was called upon

¹²A. F. Ehrbar, "'Bigness' Becomes the Target of the Trustbusters" Fortune (March 26, 1979) p. 34.

to testify on the anti-merger bill as an expert witness. In brief, he hired me as an assistant and later I assisted in writing a paper which Professor Tullock was invited to present at a Federal Trade Commission Conference which was to address the same question.¹³

The anti-merger bill was not passed nor is it likely that similar legislation will be proposed in the near future. The political climate in the nation's capital is presently more conservative and any anti-merger legislation would not meet with the support of the present administration. Nevertheless, the Kennedy-Metzenbaum bill was not the first attempt to limit corporate growth by external acquisition, and it is not likely to be the last. It is for this reason that the question addressed in this dissertation is an important one which must be adequately answered before such policy measures are adopted.

As previously noted, economists have long recognized the potential negative effects upon efficiency of large concentrations of economic power. However, there is not general agreement regarding the effects of anti-merger policy on efficiency. Convincing arguments have been made which suggest that a free merger policy will act to promote efficiency.¹⁴ The important

¹³Cathleen Coolidge and Gordon Tullock, "Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D. C., July, 1980: 43-71. (Hereafter this will be cited as "Firm Size and Political Power.")

¹⁴See Henry Manne for an excellent discussion of mergers and economic efficiency. Henry G. Manne "Mergers and the Market for Corporate Control," Journal of Political Economy, 72 No. 2 (April, 1965): 110-120.

point is that mergers are not generally accepted as a means of expanding economic power. Certainly the merger-political power contention is on even less sturdy theoretical ground. There is little justification for the belief that large corporations are a threat to the political system as we know it. In fact, it will be shown that large corporations neither enhance nor detract from the workings of the political system just because of their size. However, suppose we were to accept the purported positive relationship between firm size and political power wholeheartedly. There still remains the problem of the effects of firm size and economic efficiency. Any measure that prohibited the growth of firms by external means for political reasons could have very serious and potentially damaging effects upon economic efficiency. Success of such legislation will influence not only the ability of firms to wield political power, but it will also affect prices and quantities and therefore consumer welfare in the product markets affected. Prior to implementing such a policy change, it is necessary to perform a cost benefit analysis. However, before this can be done the actual relationship between firm size and political influence must be uncovered.¹⁵ This is the task to which I shall soon turn. Before continuing, however, I wish to state that it is unlikely that this dissertation will provide a definitive answer. However, I hope it is a step in the right direction.

¹⁵Coolidge and Tullock "Firm Size and Political Power," p. 1.

IV. Framework of the Study

Before proceeding to the study itself, it is necessary to define more precisely some of the things which will be the object of measurement and to outline the approach which will be taken. Political influence will be measured by the ". . . access to and impact upon the diverse foci of governmental decision-making."¹⁶ Therefore, political influence may be viewed as the degree of success an individual or group achieves in altering its economic status relative to that of others. Methods to acquire political influence may include lobbying activities, technical reports and persuasive advertising or outright purchase involving the exchange of money or non-pecuniary items. This study will attempt to identify, explain and ultimately measure those factors across firms and industries which are most influential in determining the level of political influence as defined above. Specifically, the most important question to be addressed is whether increases in firm size are predictably and systematically accompanied by disproportionate increases in political power.

Consider a single firm with assets of \$800,000 and two smaller firms with assets of \$400,000 each. The small firms are exactly one half the size of the large firm. If the two small firms each possessed one-half of the amount of political influence held by the large firm, then we would conclude that the large firm possessed a proportionately greater amount of political influence. Also, if the small firms each possessed more than one-half of the amount of influence held by the large firm, the latter would be said to

¹⁶Edwin M. Epstein, The Corporation in American Politics (Englewood Cliffs, New Jersey: Prentice-Hall, 1973), p. 11.

possess a disproportionately small amount of political influence.¹⁷ It will be shown that increases in firm size are not independently the source of increases in political power. Rather, increases in firm size will be accompanied by disproportionately small increases in political influence. However, the process of providing collective political influence is unfavorable to large groups of firms composed of small units. I will demonstrate that with respect to collective political influence, larger firms will enjoy an advantage until a point is reached at which diseconomies set in causing further increases in firm size to be accompanied by disproportionately small increases in political influence.¹⁸

The study will proceed as follows. In the next chapter I will present a search of the literature. The theoretical underpinnings of the firm size-political influence hypothesis are based on an almost unlimited number of articles and books by political scientists regarding interest group formation and its effects. I have previously noted the importance of a few of these works in the evolution of the theory of interest groups. The topic of this dissertation is quite specific and an attempt will be made in Chapter 2 to focus attention on those studies which have direct relevance to the subject at hand. Also, the discussion of those works that form a basis for the following chapters and which will therefore be considered in detail at a later point will be brief. This is necessary to conserve space and to avoid redundancy.

¹⁷Coolidge and Tullock, "Firm Size and Political Power," p. 1.

¹⁸Ibid, p. 2-3.

This study will be confined to the market for legislative political influence. When studying a market, it is most useful to view it in terms of the supply and demand for the relevant product, which is political influence in this case. This simple approach will assure that all of the relevant variables that determine market outcomes are identified. This is the approach which I take. In order to adequately address the nature of the firm-size-political power relationship, it is important to first lay the theoretical groundwork. In Chapter 3 a model will be developed to explain the supply of legislative political influence. The firm's demand for legislative political influence is the subject of Chapter 4. The purpose of this chapter is to study the determinants of the productivity of political influence from the viewpoint of the individual firm in the absence of any complications which might arise from collective provision. The model of the individual firm's demand for political influence will be extended to cover the demand by groups of firms for collective political power in Chapter 5. An empirical test of the demand and supply model will be presented in Chapter 6. Finally, Chapter 7 will present a discussion of some general observations and policy implications along with a summary of the conclusions.

CHAPTER 2

A REVIEW OF THE LITERATURE ON THE CONNECTION BETWEEN POLITICAL INFLUENCE, FIRM SIZE AND MARKET STRUCTURE

I. Introduction

The roots of the "firm-size-political influence" hypothesis were discussed briefly in the last chapter. The question which this dissertation addresses would most likely never even have been contemplated in the absence of the development of a general theory of interest group behavior. Nevertheless, it is necessary to concentrate attention upon completed research which deals directly with the topic at hand. Therefore, the studies dealing with the development of a general theory of interest groups and political outcomes will not be pursued. In the next section the theoretical and empirical research which has direct implications for the relationship between firm size, related market structure characteristics and political influence will be reviewed. Some general observations of the literature will be made in the final section.

II. The Literature

Most of the beginning attempts to explore the propensity of business to manipulate policy outcomes must be credited to political scientists. However, many of these works do not deal directly with the hypothesis which

we are investigating.¹ Those which do, with few exceptions,² are theoretically weak. This observation has been made frequently by others.³ In particular, many of the political science studies are primarily concerned with the normative issues of the political process.⁴ It is then not surprising that most of the works discussed below are the results of the efforts of economists. The firm size-political influence hypothesis is well-suited to investigation in an economic framework since the industrial organizational paradigm may be easily extended to address this question. In what follows I will first review those attempts to model business behavior in the political arena at the theoretical level. The studies in which the most important contribution is deemed to be empirical will be presented last.

¹For instance, there are numerous case studies which investigate the behavior of a business interest and opposing forces but these studies do not attempt to explain the variation in political influence between business units. For example see: Barry Keating, "Pressure Group Influence: An Economic Case Study" (Notre Dame, Department of Economics, unpublished); J. Clarence Davies III and Barbara S. Davies, The Politics of Pollution (New York: Pegasus, 1970); Karen Orren, Corporate Power and Social Change: The Politics of The Life Insurance Industry (Baltimore, Johns Hopkins University Press, 1974); R. Robert Linowes and Donald T. Allensworth, The Politics of Land Use (New York: Praeger, 1976).

²See Arthur F. Bentley, The Process of Government (San Antonio, Texas: Principia Press, 1949) and David Truman, The Governmental Process (New York: Alfred A. Knoph, 1951).

³For a critical evaluation of the political science literature see: Robert A. Dahl, "Business and Politics: A Critical Appraisal of Political Science" in Social Science Research on Business: Product and Potential, Robert A. Dahl, Mason Haire and Paul F. Lazarfeld, eds., (1950); Lee E. Preston, "Corporation and Society: The Search for a Paradigm," Journal of Economic Literature 434 (1975).

⁴For instance, see Morton Mintz and Jerry Cohen, America, Inc. (New York: Dell Publishing Company, 1971) and Mark V. Nadel, Corporations and Political Accountability (Lexington: Heath 1976).

George Stigler in his article, "The Theory of Economic Regulation,"⁵ develops what is now a widely accepted theory regarding the manner in which industries secure regulations which effectively operate to the benefit of the acquiring industries. This work altered the view of regulation as a device operating in the "public interest" to one in which it is conceived as the outcome of successful investment in political influence. Stigler argues that any industry which possesses enough political power will seek to control entry, the legal right to engage in price-fixing, a direct subsidy of money and the favorable control of substitutes and complements. These are likely to be the most profitable sources of political benefits to be derived from the regulatory apparatus. What then determines the political power which an industry possesses? Stigler does not address this question directly. However, he argues that while the economic power of a firm in an unregulated industry is in proportion to its share of the market, small firms in regulated markets possess a disproportionately large amount of political power. He points out that in cases involving quotas, small firms "will almost always receive larger quotas than cost-minimizing practices would allow."⁶ He demonstrates that under the original oil import quota system the percentage allowed the smallest refiners was disproportionately large; the percentage fell as refinery size increased. This would seem to indicate that firm size and political power is negatively related, at least in regulated markets.

⁵George Stigler, "The Theory of Economic Regulation," The Bell Journal of Economics and Management Science 2 no. 1 (Spring, 1971): 3-21.

⁶Ibid., p. 5.

In a monograph by Randall Bartlett, a model of political influence and policy formation is developed in which the subsidization of selective information by the participants plays a determining role.⁷ He places all agents whom he assumes to be rational maximizers into one of the following four categories: consumer-voters, producers, government and bureaucrats. Consumer-voters are presumed to be able to exert voting and non-voting political influence. Each has one vote to "spend" and each may devote some of their economic resources to influence policy. Producers are profit-maximizers that will undertake an activity, including political activity, whenever the expected benefits exceed the costs. No attempt is made to discern what actually determines these benefits to firms. The government is made up of elected representatives which are presumed to be vote-maximizers. Bureaucrats are appointed and charged with administering the details of the collective decision-making process. These actors are presumed to be "security-maximizers." In Bartlett's analysis information is costly and thus, the optimal level of information as measured by quantity and quality is often less than perfect. It is the presence of uncertainty which allows for influence. Through the subsidization of selective information agents may influence the choices of others. This will be done whenever the expected gains exceed the expected costs. Government, faced with imperfect and costly information will make choices based on the pressures it feels at the time. This is viewed as an opportunity by the actors in the model to produce the necessary pressure to affect governmental choice favorably. The

⁷Randall Bartlett, Economic Foundations of Political Power (New York: The Free Press, 1973).

primary methods by which producers may influence government agents are campaign donations and the subsidization of selective information.

Bartlett derives a cost function for producing political influence in which costs vary directly with the level of counter-influence. He argues that unless issues affect the earning of income, it is unlikely that there will be a net gain from political influence. He also claims that if capital markets are not perfect then earned income will be the determining factor limiting the ability to enter the political influence market for small agents. In summary, Bartlett argues that large economic actors enjoy an advantage in the political influence market for two reasons. First, they are better able to meet the resource constraints. Second, by investing in the political process, agents effectively raise the costs to the opposition. If the latter group is composed of small agents, the increased costs may make any active opposition on the part of this group unprofitable.

Randall Bartlett addresses this same topic in a more recent article.⁸ However, it is essentially a re-creation of the model developed in his monograph.

The observations made by Victor Goldberg are quite similar.⁹ In this study Goldberg looks at the desirability of certain institutional arrangements in light of the ability of interested parties to alter the

⁸Randall Bartlett, "An Economic Theory of Political Behavior: Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D. C., July, 1980: 282-299.

⁹Victor Goldberg, "Institutional Change and the Quasi-Invisible Hand," Journal of Law and Economics 17 no. 2 (October, 1974): 461-92.

rules which affect them. In his framework the notion of counter-influence is extremely important to the determination of group benefits. He argues that the greater is the amount spent by groups in opposition to an institutional change, the fewer benefits will be gained by the supporting group from a given level of spending. Wealth and the ability to borrow are important determining factors of the ability of a group to derive favorable institutional change. As funds become more expensive, the cost of further influence rises. He notes that groups composed of small economic actors may face higher interest rates on borrowed funds because smaller actors are usually presumed to be a greater risk. He also notes that potential lenders may be reluctant to lend for the purpose of acquiring influence which they feel will result in institutional change that they do not support. Carrying the argument to the next logical step, Goldberg states that the advantages of wealth may be further amplified if there are economies of scale in influence accumulation. In this case Goldberg argues that poorer groups may find the optimal level of expenditures to be zero. He concludes that the larger the firm, the more the resources and therefore he predicts a positive association between the size of the economic agent and the ability to exercise political power. Goldberg lends further support to his argument by noting that the "free-rider" problem is likely to plague groups composed of small atomistic agents.

William P. Welch developed an interesting model designed to explain the transformation of economic power into political power.¹⁰ His model

¹⁰William Welch, "The Economics of Campaign Funds," Public Choice XX (Winter, 1964): 83-97).

considers the behavior of three economic units which include a quid pro quo contributor, an ideological contributor and a politician. For the quid pro quo contributor there are three economic variables which determine the probability of contributing and the level of contributions. These include the marginal product of political influence, the probability of obtaining influence if contributions are made, and the concentration of the economic group seeking the influence. Welch claims that the campaign donations of the quid pro quo contributor will increase with the level of the concentration of the group beneficiary. Welch does not offer a detailed explanation of the determinants of the marginal productivity of political influence except that he notes it will rise with increases in an agent's dependency upon the governmental unit. In the Welch model the demand for political influence is simply part of the supply of campaign funds. The latter is the sum of the quid pro quo contributions, ideological contributions and the candidate's own contributions. Welch then proceeds to develop a model for the supply of political influence which is determined by the demand for campaign funds and by the reaction of voters to "influence peddling." Again, no attempt is made to explain the interesting question regarding what determines the reaction of the public to the production of benefits for special interests. Nevertheless, Welch's framework offers an excellent vantage point from which to view the business-political influence questions.

The above-mentioned works represent the primary examples of non-empirical research which either directly or indirectly addresses the

relationships to be investigated in this study. The discussion which follows concentrates on empirical research which tests the validity of the hypothesized relationships.

The early attempts to offer empirical evidence regarding the propensity of firms to influence policy outcomes relied almost exclusively upon case studies of campaign finance data. One of these studies by Alexander Heard, employs data for the 1952 and 1956 state and national elections much of which were compiled from interview and survey techniques.¹¹ Heard concludes that economic power is translated into political power through the process of campaign finance and that this is particularly evident among the directors and officers of the nation's largest corporations. He notes that this is also true of other non-corporate members of the system, but offers no solid conclusions regarding the final distribution of political power.¹²

The first systematic attempt to empirically test the firm size-political influence and related hypotheses was made by John J. Siegfried in his doctoral dissertation.¹³ The author uses 1963 data to calculate the deviation of actual corporate tax rates from the norm across manufacturing and mining industries. He applies multiple regression techniques to

¹¹Alexander Heard, The Costs of Democracy (Durham, North Carolina: Seeman Printery, 1960).

¹²Herbert E. Alexander has published many studies of campaign financing. See Studies in Money and Politics, series nos. 1-7 (Princeton, New Jersey: Citizen's Research Foundation, 1970).

¹³John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence From the Federal Corporation Income Tax Program" (Ph.D. dissertation, University of Wisconsin, 1972).

determine the relationship between his calculated tax avoidance rate and five industrial economic variables which include firm size, industry size, industrial concentration, geographical dispersion and profit rate. In Siegfried's preferred empirical model increases in firm size are found to be associated with increases in the tax avoidance rate. The results also suggest that increases in industrial concentration are inversely related to an industry's ability to capture tax advantages. Siegfried claims that his results lend substantial support for the firm-size political influence hypothesis.

It appears, however, that there are two reasons why Siegfried's results should be viewed with some caution. First, the five economic variables included in the model explain only 16 percent of the variation in the calculated tax avoidance rate. Second, alternative manipulations of Siegfried's data yield different results. In a previously mentioned paper Professor Tullock and I¹⁴ attempted to rework Siegfried's data and obtained some interesting results. We observed the existence of three extreme outliers which appeared to exert a great deal of power on the regression equation. The three industries included automobiles and parts and two petroleum related industries. When we ran the regression routine without these extreme values the firm size coefficient became less significant. Next, we removed all industries with high depletion allowances. The reason

¹⁴Cathleen Coolidge and Gordon Tullock, "Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980: 43-71.

for this is that the depreciation allowance appeared to be designed to aid a variety of firms, many of which can be described as small. We argue that this is particularly justified in light of the fact that soon after Siegfried's work was completed the integrated major firms in the petroleum industry were deprived of the depletion allowance. The coefficient of the firm size variable is insignificant when the high depletion allowance industries are excluded. The work of Siegfried was nevertheless a major step forward and more recent attempts to address the validity of the firm size-political influence hypothesis are direct spin-offs of his research. Before we proceed to present the findings of other authors there is another study by Siegfried and Lester Salamon which must be considered.¹⁵

The authors perform two tests each of which are based on the petroleum industry. First, they look at state by state variations in the motor fuel excise tax. In addition to variation of rates, some states require that the receipts of this tax be dedicated to highway construction. The authors argue that in states in which the receipts are dedicated to highway construction petroleum firms would stand to benefit from increased rates since this would increase the demand for gasoline. Salamon and Siegfried note that in those states in which the receipts were not dedicated to highway construction, the petroleum companies have lobbied against rate increases. They test the effects of the overall size of the industry as well as the effects of large firm domination in the industry upon these tax

¹⁵Lester M. Salamon and John J. Siegfried, "Economic Power and Political Influence: The Impact of Industry Structure on Public Policy," American Political Science Review LXXXI, no. 3 (September, 1977): 1026-1043.

rates. The authors hypothesize that states will be more likely to dedicate these revenues to highway construction if the petroleum industry is large and also that in the non-dedication states the tax rate will be inversely related to the dominance of large firms within the industry and the size of the industry within the state. Their results suggest that large size and political power are positively related in the refining stage of petroleum production, but not at the crude oil production level.

Another test dealing with the petroleum industry is performed in which variations in tax performance within the petroleum industry are measured. They conclude that larger, more-integrated firms are better able to reduce their tax burdens. However, in grouping firms according to asset size, any firm with over \$250 million in assets is defined as large. We have noted that in the petroleum industry a firm with \$250 million in assets is better described as small.¹⁶ Furthermore, the author's results depend upon which of the calculated tax avoidance rates is employed. We argue that the calculated tax rate which excludes the foreign tax credit as a special business allowance appears to be superior because this is not a source of corporate benefits, but is better described as part of the U.S. foreign aid package.¹⁷ Employing this measure of tax avoidance suggests that firms with assets valued between \$150 and \$250 million exert the strongest political

¹⁶Cathleen Coolidge and Gordon Tullock, "Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, p. 48.

¹⁷Ibid.

influence. This may be interpreted to mean that diseconomies set in beyond the \$250 million mark.¹⁸

Cynthia Glassman attempts to measure the effects of firm size and market structure on political influence, but her study is confined to a single industry.¹⁹ She uses the banking industry which operates on a local or regional level to analyze this relationship by attempting to determine how the economic power of banks influences their tax burden. Multiple regression techniques are employed to test the relationship between the average state and local tax rates paid by banks in each state and the following variables: 1) statewide bank concentration ratio; 2) bank employment as a percent of total employment in the state; 3) average bank assets as a measure of bank size; 4) per capita income; 5) the ratio of farm to non-farm income. The last two variables are included to account for the degree of counter-influence. She finds that both bank concentration and employment have an insignificant impact on political influence. The bank size variable was found to be significant but it was positively associated with average tax rates in contrast to Siegfried's results. None of the other variables were significant, however.

In a related study John T. Rose found no significant correlation between statewide banking concentration and votes in the U.S. Senate on a

¹⁸Ibid.

¹⁹Cynthia A. Glassman, "The Impact of Banks' Statewide Economic Power on Their Political Power: An Empirical Analysis" (unpublished paper, Federal Reserve Board, Washington, D.C., 1979).

bill favoring banking.²⁰ Rose studied the 1975 vote on a bill to delay the start of NOW accounts until 1978. He attempts to correlate this vote across states with measures of the power of the commercial banking industry. In addition to finding no significant relationship between concentration and political power in the banking industry, his results also suggest that increases in the size of the banking industry were associated with a reduction in banking political power.

Thomas Marx tests the proposition that because most large firms are conglomerates they will be interested in more numerous issues and will not pursue any one with as much vigor as non-conglomerates.²¹ He performs several empirical tests of the effects of conglomeration on political influence by testing for differences between a group of 75 conglomerate firms and a randomly selected group of 75 non-conglomerates. Each group is composed of firms of comparable size. His dependent variable is taxes as a percent of net income before taxes. He finds no significant relationship between the dummy conglomerate variable and the tax rate. He also tests the effects of conglomerate mergers on political contributions and finds that the political action committees of conglomerates contributed about 70 percent more on average than those of non-conglomerates.

In another study, H. Michael Mann and Karen McCormick use econometric methods to determine the effects across firms of firm size, diversification,

²⁰John T. Rose, "Aggregate Concentration in Banking and Political Leverage: A Suggested Methodology" (unpublished, Board of Governors of the Federal Reserve, 1976).

²¹Thomas Marx, "Political Consequences of Conglomerate Mergers," (unpublished, General Motors Co., 1980).

geographical dispersion market share and profitability on reported lobbying expenditures in 1975-1976 in California.²² Their results suggest that larger firms are more likely to engage in lobbying activities and they are also more likely to spend greater amounts. Greater market share is positively associated with lobbying activity as is profitability and geographical dispersion. Their data reveals that no significant relationship exists between diversification and lobbying expenditures. The authors also tested the proportionality question between firm size and lobbying expenditures. The findings also suggest, that while large firms spend more than small firms in absolute terms, they spend proportionately less.

There are two earlier studies by Russell Pittman which, like that of Mann and McCormick, focus on the level of political activity as opposed to policy outcomes. In the first Pittman tests the strength of the "free-rider" problem and the influence of regulation upon the level of corporate related political contributions.²³ Pittman measures the level of legal contributions to three 1972 U.S. Senate races. He computes these from contributions of \$500 or more made by individuals, trade associations and political action committees each of which was identified according to industry affiliation. His independent variables include the industry

²²H. Michael Mann and Karen McCormick, "Firm Attributes and the Propensity to Influence the Political System," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D. C., July, 1980: 300-313.

²³Russell Pittman, "The Effects of Industry Concentration in Three 1972 Senate Campaigns," Public Choice, XXVII (Fall, 1976): 71-80.

concentration ratio, dummy variables for national as well as local regulation and an interaction term for both levels of regulation while controlling for the number of employees in the industry as well as the proportion of those employees working in the region covered by the three races. He found that concentration was positively and significantly associated with campaign contributions. On the other hand, federal regulation was found to be negatively associated with political contributions.

Pittman's second study is basically an extension of the first.²⁴ The dependent variable is the contributions of individuals and groups to the Committee to Re-Elect the President in 1972. Again, each contribution is classified according to industry affiliation. Pittman includes both a state and federal regulation dummy in addition to other measures of business-government interaction which include governmental purchases, import and export restrictions and a variable to measure the industry's involvement in anti-trust suits. Also included are interaction terms to measure the strength of concentration on each of the other variables. He finds that highly concentrated industries contribute more than unconcentrated industries when they are highly regulated, involved in anti-trust investigation and when government purchases are important to the profitability of the industry.

There are two studies by J. J. Pincus and Richard Caves which are concerned with the distribution of benefits across industries arising from

²⁴Russell Pittman, "Market Structure and Campaign Contributions," Public Choice, XXXI (Fall, 1977): 37-51.

favorable tariff protection. Richard E. Caves in his study of the effects of political influence on the Canadian tariff structure argues that greater diversification should mean that an industry will be less vulnerable to international competition.²⁵ He therefore predicts that tariffs should be negatively related to diversification. Caves develops three models of the political process. In each of these he tests the relationship between industrial structure and Canadian tariff rates. In the first he hypothesizes that governmental support will be a positive function of the number of voters expected to support the measure. Since it is individuals that vote Caves proposes that labor intensity and tariff rates will be positively related as will geographical dispersion.

In the second model he hypothesizes that due to the "free-rider" problem a positive correlation should exist between concentration and protection from international competition but he also concedes that the tariff structure may favor unconcentrated industries that are able to overcome their organizational difficulties.

He also tests a model in which governmental policy is assumed to reflect the pursuit of broad national goals. Overall, Caves concludes that an interest-group theory of governmental policy-making is explanatorily superior. When tested with this framework, Caves results do not support the "free-rider" hypothesis. However, concentration was found by Caves to be negatively associated with Canadian tariff protection when tested within the other two models.

²⁵Richard E. Caves, "Economic Models of Political Choice: Canada's Tariff Structure," Canadian Journal of Economics IX no. 2 (May, 1976).

In a study of the Tariff Act of 1824, J. J. Pincus finds that political pressure was more effective if firms are less geographically concentrated i.e. when the economic units were spread more evenly across legislators.²⁶ He recognizes that interest group theory suggests that small, homogenous, geographically concentrated groups would be better able to act to secure favorable tariffs from the legislature but finds that tariffs designed to benefit a narrow interest did not generate much support. Pincus suggests that although the bulk of political pressure comes from small number groups, the existence of large numbers of small economic units which are geographically dispersed helps to obtain congressional support.

A study by Stanley Lieberman has interesting implications for the firm size-political influence hypothesis.²⁷ Focusing on the industrial-military complex he demonstrates that the members of this complex have an interest in maintaining high levels of military spending. The importance of Lieberman's work to the topic being investigated is his finding that the income of the largest corporate members of the complex is more closely related to non-military as opposed to military spending. He notes that defense industry firms are large relative to the average firm size across all industries but that the largest firms derive only a small percentage of their business from military contracts. Given the more narrow interests of the smaller corporate members, it appears that they would have more at stake

²⁶J. J. Pincus, "Pressure Groups and the Patterns of Tariffs," Journal of Political Economy 83 (August, 1975): 757-78.

²⁷Stanley Lieberman, "An Empirical Study of Military-Industrial Linkages" in Testing the Theory of the Military Industrial Complex, Steven Rosen, ed., (Lexington, Mass.: Lexington Books, 1973): 61-84.

in the budgetary proposal process. This suggests that the smaller defense firms have a greater incentive to engage in activities designed to maximize the size of defense budgets.

In another article, Finger, Hall and Nelson present and test their interpretation of how the administrative import constraint mechanisms function to resolve complaints about import competition in order to determine the extent to which political considerations can be said to influence final decisions.²⁸ Prior to presenting their model it is necessary to discuss the mechanisms with which they are concerned.

The escape clause (EC) of the 1974 Trade Act provides a means for an industry to petition the International Trade Commission (ITC) to conduct investigations of "injury" from imported goods. The ITC reports its findings and recommendations to the President who must then decide whether to take up the case. "Less than fair value cases" (LFV) concern the sale of subsidized exports in the U.S. market as well as anti-dumping cases. They note that decisions in LFV cases require many technical considerations while this is not true for EC cases. They also point out that it is the relaxation of technical criteria rather than explicit political considerations which allows the latter to influence the outcome of LFV cases. LFV petitions are described by the authors as the technical route to protection and they note that the technical route as opposed to the more political EC route will lend justification to the final governmental

²⁸J. M. Finger, H. Keith Hall, and Douglas R. Nelson, "The Political Economy of Administered Protection," American Economic Review 72 no. 3 (June, 1982): 452-466.

decision. They conclude that the mechanisms of the LFV will therefore often go "too far" and protect domestic producers from "fair" as well as unfair foreign competition.

The independent variables include two measures of international political influence. They argue that LFV decisions are prejudiced against Less Developed Countries and include a dichotomous variable to test this proposition. They also argue that decisions are likely to be more favorable if the nation involved is an important trading partner and therefore include a variable which measures the proportion of total U. S. exports which are imported by the nation against which the suit was filed. The authors also include two different measures of domestic political influence. They predict that industry size and concentration will be positively related to success in LFV cases.

Their results suggest that international political influence as measured by their variables do not affect the decisions in these cases. The domestic political influence variables do not offer a great deal of explanatory power either. The findings suggest that technical considerations are most important to the outcome of LFV cases. The only political influence variable which is significant is industrial concentration, but it is found to be negatively related to success in LFV cases. This result is consistent with the findings of other studies which suggest that increases in concentration are either unrelated or negatively related to success in the political influence market, contrary to the "free-rider" hypothesis.

III. Conclusions

It is evident from the discussion of previously completed research in this area that much more work needs to be done. The bulk of the studies are empirical in nature and lacking in theoretical underpinnings. In the words of Oliver Williamson, the problem appears to be one "of empirical analysis operating in advance of conceptual foundations."²⁹ Empirical evaluation is promising only to the extent that the model to be tested is based upon a previously conceived and comprehensive theory.

There are a number of questions that have been overlooked which are of primary importance to the development of a theory regarding the firm size-political influence relationship. For example, those factors that effect the costs of supplying political influence must be identified to determine whether firm size or market structure characteristics influence the values these costs take, thus resulting in differing supply conditions among firms or industries. Additionally, little attention has been given to the individual firm's incentives to invest in political influence. Efforts must be directed to identify those factors which influence the marginal productivity of political influence in order to determine whether the demand for political influence can be expected to vary in a systematic fashion between firms. These are the tasks of the following three chapters of this dissertation.

²⁹Oliver Williamson, "Commentary," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D. C., July, 1980: 78-88.

CHAPTER 3

THE SUPPLY OF LEGISLATIVE POLITICAL INFLUENCE

I. Introduction

A model of the supply side of the market for legislative political influence will be presented in this chapter. A production cost function for a representative legislator will be derived which will later be subjected to empirical testing. An attempt will be made to concentrate attention upon those factors which can be expected to result in production cost differentials for different size firms or for industries characterized by varying degrees of concentration. Differences in firm size and market structure characteristics may be the source of varying propensities to pursue special interest legislation. However, supply conditions may themselves be partially dictated by the product market environment of the special interest recipient. Once this possibility is recognized, it is clear that a careful analysis of the supply side of the market is imperative before the firm size-political influence hypothesis can be evaluated.

A branch of economic literature, namely that of public choice, is rich with attempts to model the behavior of politicians. Then it should not be surprising that the following analysis will rely heavily upon this previously completed research. The present emphasis, however, is on the application of behavioral political models to the business political influence market for the purpose of determining

the effects of differing market structures upon the production costs of special interest legislation.

Before proceeding, it will be beneficial to discuss the shortcomings, and at the same time, the general applicability of this project. First, no attempt will be made to distinguish between federal, state, or local governmental units in this analysis. It is possible that in some cases, the particular political favor demanded will determine the governmental supplier with whom the firm or group of firms must do business. However, most general categories of political favors may be available from all levels of government.

It should be recalled that throughout this dissertation the source of such political favors is assumed to be the legislature. It is therefore not necessarily possible to draw conclusions regarding the propensity of different size firms to invest in political influence without specifying the political marketplace in which the actors are assumed to operate. Structural characteristics can be expected to differ from one political marketplace to another.¹ It follows that this analysis will not necessarily apply to bureau or judicial matters. Additionally, there appears to be a greater body of data on legislative matters to accommodate empirical testing.

¹The failure to specify the particular political market under consideration has resulted in confusion in many studies according to Oliver Williamson in his commentary in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, pp. 78-88.

The following section will present an overview of the changing nature of the relationship between the business and government sectors while the model will be developed in Section III.

II. The Evolution of the Business--Government Relationship

Observation suggests that an increasingly close relationship has developed between business and government in our recent past. However, this is not to suggest that there was no interaction between the two sectors in the more distant past. In fact, Edwin Epstein's investigation of the political involvement of corporations in U.S. history in The Corporation in American Politics suggests the contrary.² He indicates that the important interaction between business and government began before the birth of the nation. The first example of such an interaction, notes Epstein, was that between the colonial government and the Virginia and Plymouth companies which were designed to promote settlement. The roots of this interaction are perhaps best exemplified in the Jeffersonian-Hamiltonian Debate in which the futures of both manufacturing and agriculture were explored and, according to Epstein, determined. The debate demonstrated an apprehensiveness regarding a potentially close business-government relationship. This anxiousness also exists today.

The most important difference between the business-government relationship of yesteryear and that of the present appears to be a matter of degree. Epstein makes this observation noting that since

²Edwin M. Epstein, The Corporation in American Politics (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969), pp. 20-23.

World War II, the role of the state has certainly evolved toward increased participation in the economic realm of business.³ George Stigler illuminated the omnipotence of government claiming that "the State--the machinery and power of the state--is a potential resource, or threat to every industry in the society."⁴ The task which remains is to explain the underlying reason for this observation.

Buchanan and Tullock have offered an interesting explanation for the marriage of government and business. They point out that almost invariably, the interests of economic actors will differ and, if feasible, individuals will attempt to serve their interests, not only in the private marketplace, but also in the political marketplace.⁵

The authors state:

In large units the institutional manifestation of the active promotion of economic interest is the pressure group. The reason for the very existence of such groups lies in their ability to promote and to further through the political process, the particular functional interests represented. The emergence of such groups to positions of dominant importance during the past half century has been one of the most significant developments in the U.S. political scene--with it the view that the legislator follows a selfless pursuit of "public interest" as something independent of and apart from, the private economic interest is falling apart.⁶

³Ibid., p. 38.

⁴George Stigler, "The Theory of Economic Regulation," The Bell Journal of Economics and Management Science, Volume II (Spring, 1971). p. 3.

⁵James Buchanan and Gordon Tullock, The Calculus of Consent (Ann Arbor: University of Michigan Press, 1962), p. 100.

⁶Ibid.

The underlying cause of pressure group activity as noted by the authors is the existence of a category of "quasi property rights." These rights will always exist and will always be subject to change by a governmental body.⁷ Thus, gains from trade are inherently present. However, it is the expansion of the political marketplace which is responsible for our observed increase in business-government interaction. This expansion has increased the profitability of investment in political influence by substantially increasing the potential gains to be realized from such influence. Likewise, increases in industrial growth and speculatization have served to create more intricate interdependencies among economic agents which has enhanced the profitability of producing influence. Both of these forces have promoted the growth of this body of "quasi-property rights." This increases willingness on the part of the government to alter or eliminate previously defined property rights, invites attempts on the part of individuals and business to manipulate future property rights changes in their favor. The object of such attempts at manipulation may be to secure changes that will advance the position of that individual or firm relative to the other members of the society. Alternatively, the attempts to influence the outcome of the governmental decision-making process may be to simply prevent the imposition of costs upon the group or individual brought about

⁷Ibid., p. 73. "Quasi property rights" are composed of a subset of previously established property rights which may be modified after they have been accepted by the community.

inadvertantly by the collective unit or by the influence exerted by another group or individual.⁸

While this reasoning logically extends to cover the behavior of all economic actors it is often contended throughout the literature that business firms will be more likely than individual citizens to pursue political influence. A common rationale for this contention is based upon the argument that influence which increases pecuniary income will ordinarily provide a higher pay-off to the investor than influence which increases non-pecuniary benefits. In presenting such an argument Randall Bartlett contends "the potential payoffs will be highest in those situations where the earning of income is involved."⁹ Alternatively, in the case in which only pecuniary benefits are involved, the individual voter-citizen's potential pay-off from investment in political influence would be relatively small compared to the expected pecuniary pay-off to be received by the producing unit. In the presence of "free-rider" problems which may make a coordinated effort on the part of small economic actors impossible, this may, in fact, be a correct assessment of the situation. However, it is not the

⁸Buchanan and Tullock conclude essentially the same thing. This point has also been made by H. Michael Mann and Karen McCormick in "Firm Attitudes and the Propensity to Influence the Political System," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, pp. 300-313.

⁹Randall Bartlett, "An Economic Theory of Political Behavior: Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, p. 292.

intention of this study to offer evidence concerning this issue. Rather, the analysis will confine itself to the question of the existence of differing propensities to invest in political influence among business organizations.

III. The Model

An analysis of the legislative market for business favors is the study of a factor market. Political influence, successfully acquired by firms is an input and is thus considered in the production functions of the recipient business units. The primary difference between this factor market and the market for factors produced by private agents is the presence of externalities resulting from both the employment activities of the business units and the production activities of legislators. The latter derives from the potential deviation between the interests which legislators actually represent and those which they are elected to represent.

Legislators are assumed to attempt to maximize their individual utilities. The utility function of the representative legislator is defined as follows:

$$U = U(R_p, R_n, PE).$$

Utility is determined by numerous items which are represented by both pecuniary and non-pecuniary income as well as the probability of being re-elected, indicated above by R_p , R_n , and PE , respectively. Pecuniary income is comprised of the sum of wages received and money payments from other sources including special interest seekers. Non-pecuniary

returns include such items as the value of postage subsidies, clerical and secretarial help, travel expenses and other items which are provided to an individual holding a legislative position according to existing law. Also included is the value of prestige and power attributable to the legislative position as subjectively evaluated by the office holder. To this sum must be added outside earnings from special interests of a non-pecuniary nature. These items might include paid vacations, club memberships, tangible personal gifts. Campaign contributions and possible "get-out-the-vote" drivers sponsored by recipients of political favors, although non-pecuniary in nature, will enter the utility function through PE, the probability of being re-elected, along with other items which will influence this argument such as the politician's stances on issues and his own wealth.

An idealistic view of government suggests that elected representatives faithfully execute the will of the majority of their constituents either as a deliberate attempt or as a by-product of the election process. The latter allows for the possibility that the legislator votes in accordance with his personal stances on issues which are communicated to the electorate during the campaign process. The fact that he was the winning candidate suggests that his personal positions more closely represent those of the voters than did the stances of other contenders in the race for the legislative set. Thus, either possibility is compatible with an idealistic view of representative government. The goal of maximizing the probability of re-election would at first appear to be in harmony with this view. This is particularly true if it is assumed that information is

available to voters at a relatively low cost and the costs of voting are similarly small. In this case, failure to represent the median position on most issues would be expected to lead to voter retribution at the polls.

Clearly, however, to the extent that the maintenance of voter sovereignty does not enter into the utility function of the representative, one who desired to serve only one term would be motivated to vote on legislative measures in a manner that would represent this preferences regardless of whether or not they were consistent with those of his constituents.¹⁰ However, if re-election is assumed to be the only objective of the political entrepreneur then in the absence of significant information and voting costs, the position of the median voter would be predicted to be represented.

The utility function of the political entrepreneur as defined here appears to relegate the idealistic view of representative government as obsolete because the inclusion of pecuniary and non-pecuniary income variables promises to lessen the likelihood that voter sovereignty will be observed. The utility function allows for the provision of special favors for business at the expense of a legislator's constituents because the pecuniary and non-pecuniary income objectives provide for the possibility of being re-elected and activities which maximize

¹⁰Winston C. Bush, "Some Disturbing Aspects of Political Entrepreneurship," in Essays on Unorthodox Economic Strategies, Arthur T. Denzau and Robert J. Mackay, eds. (Blacksburg, Virginia: University Publications, 1976), p. 70. It should be noted that the approach taked here began with the classic work of Anthony Downs. See An Economic Theory of Democracy (New York: Harper and Row, 1957).

other goals. This is true to the extent that property rights can be re-defined by the legislature. Observation suggests an increasing willingness on the part of government to do so which makes available many opportunities for increasing legislative income beyond wage pay. Winston C. Bush describes these trade-off opportunities as follows:

...(the political entrepreneur) can choose between the probability of re-election and the bribes he receives. Although a politician may advocate the winning platform, he can deviate from his stand on some issues. A situation in which bribes might be significant is when it is known that the vote on an issue will be close. A group of individuals who are intense about the outcome of an issue should be willing to pay a high price for the vote of a representative who has not declared how he will vote, and the group knows that the probability of the politician's re-election will decrease if he votes in favor of the group....When the political entrepreneur is offered the bribe to vote against the best interests of his constituents, he calculates the gains from the bribe and the expected loss in terms of the decreased probability of re-election. If there is a net gain, he will vote against the best interests of his constituents....When politicians are faced with trade-offs between bribes and the decreased probability of re-election, the degree of voter sovereignty his constituents enjoy decreases. He is no longer completely constrained by the preferences of the voters he represents.¹¹

The utility function defines the attitudes and goals of the legislator who may become a producer in the political marketplace and it, in conjunction with existing political institutions, will determine the extent to which voter sovereignty will be violated. The stronger are the legislator's preferences for representing those of his constituents, the less likely it will be that the legislator will assume the role of producer in the special interest political marketplace.

¹¹Ibid.

Nevertheless, utility maximization will not preclude the production of special interest legislation for at least some legislators.

Although the discussion presented thus far provides an explanation for observed production of political favors by the legislature, it alone neither supports nor undermines the contention that business influence varies positively and disproportionately with firm size and industry concentration. It is also not possible to conclude on the basis of the above discussion that the legislature will necessarily promote the well-being of the corporate sector at the expense of the voter-constitutents. It has merely been shown that there is room within existing institutions for activities which violate voter sovereignty in order to benefit special business interests. One important factor potentially limiting this type of activity is the resultant reduction in re-election probabilities. What then determines the extent to which re-election prospects are damaged? Ideology has been recognized to play an important role. It has been argued that voters can compare the outcome of legislation supported by the candidate in terms of both the identity of the beneficiaries and the extent of the resultant redistribution at a relatively low cost.¹²

Voters who supported the candidate in the last election because of his ideological stances would be less likely to cast a vote in the candidate's favor if his voting record were at odds with those

¹²Richard E. Caves, "Commentary" in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, p. 316.

ideological positions. In the words of Richard Caves:

An element of political behavior often passed over in economic analyses is ideology. This is unfortunate because ideology can be treated as a rational political market device in the presence of transaction and information costs...they (voters) know that candidates do not and cannot stake out comprehensive platforms indicating what positions they will take on every issue that may arise. Ideology plays an important role in these circumstances of high transaction costs and uncertainty, because it allows a political party or candidate cheaply to communicate a general posture toward selecting positions on issues, one that conveys some useful information to the voters. Ideology is therefore an important way of economizing on information. Its importance here lies on the drag it imposes on the ability of interested parties to invest in altering the outcome of a particular issue. It suggests that proponents of a specific position may seek support by appropriating an available ideology, but are unlikely to invest profitably in creating or modifying one.¹³

The "drag" on investment in political influence is derived from the potentially high price of political favors resulting from high production costs as a consequence of a substantial reduction in the probability of winning the next election.

Richard Wagner also recognized the important role of ideology in the political marketplace.¹⁴ He contended that legislators will act to please the majority of voters in order to win re-election. The author explains that large groups who because of their sheer size are unsuccessful at forming pressure groups may still have their interests

¹³Ibid.

¹⁴Richard E. Wagner, "Pressure Groups and Political Entrepreneurs: A Review Article," Papers on Non-market Decision-making (Charlottesville, Virginia: University of Virginia, 1967), pp. 161-170.

represented in the political system.¹⁵ He notes the success of consumers and the elderly in securing favorable legislation. It is, according to Wagner, the existence of political profits which determine the supply of political influence, not the existence of pressure groups with lobbyist representation in Washington. He claims that the existence of a pressure group may be a sufficient condition, but not a necessary one for the receipt of political favors. Implicit in Wagner's argument is the recognition of the possibility that political profits can be secured by observing the preferences of large groups of constituents. Small more well-organized groups of special interests are not the only source of such profits. Thus, profits may be secured without incurring the cost of a reduction in the probability of being re-elected as a consequence of supporting the special interests of smaller, more well-organized groups.

One of the largest latent groups which is a source of political profits is the legislator's general constituency. This group may also be a source of significant counter-influence due to attempts on the part of the legislator to produce special-interest legislation. If non-organized counter-influence reduced the profitability of special interest legislation, then the existence of an organized pressure group would not be a sufficient condition for the receipt of special-interest favors. The existence of a well-organized pressure group would constitute a sufficient condition only when counter-influence is non-existent or

¹⁵Wagner's contention that large groups will not attain success in forming organizations for the purpose of exerting political pressure is in reference to Mancur Olson's "free-rider" hypothesis in The Logic of Collective Action (Cambridge: Harvard University Press, 1965).

insignificant. However, as noted by Bush, in its presence the legislator must employ a cost-benefit technique to weigh the increase in income against the expected reduction in the probability of being re-elected.¹⁶ The profitability from the production of special-interest legislation depends not only on the degree or organization of the beneficiaries, but also upon the intensity of opposition or counter-influence arising as a result of the legislation. The former determines the ability of the group to make their preferences known and to orchestrate an effort to collect fees from benefiting members of the group to be used as an income payment to producing legislators. The latter, however, will help to determine the opportunity costs and ultimately the profitability of pursuing political influence. Before proceeding, it will be helpful to define counter-influence with more precision.

Counter-influence measures the degree of opposition to a particular bill in the legislature.¹⁷ It can occur directly by active opposition

¹⁶Winston C. Bush, "Some Disturbing Aspects of Political Entrepreneurship," in Essays on Unorthodox Economic Strategies, Arthur T. Denzau and Robert J. Mackay, eds. (Blacksburg, Virginia: University Publications, 1976), p. 70.

¹⁷Randall Bartlett and Victor Goldberg include counter-influence in their respective models. Bartlett's differentiation between voting and non-voting consumer influence is similar in spirit to the distinction made here between active and passive counter-influence. However, Bartlett is primarily concerned with that which arises or fails to arise because of the subsidization of selective information. To the contrary, imperfect information plays only a minor role in this study. In the Goldberg model, little attention is paid to the origin of counter-influence. It is merely noted that its presence raised the costs of acquiring political influence and the author concludes that only larger economic units would be able to meet the threshold expense. See Randall Bartlett, Economic Foundations of Political Power (New York: The Free Press, 1973); Randall Bartlett, "An Economic Theory of Political Behavior: Firm Size and Political Power," in The Economics of Firm Size,

groups whose common goal is to prevent the passage of legislation promoted by the industry or firm, or to reverse legislation previously passed. Counter-influence may also manifest itself indirectly by non-organized passive resistance in which voters merely seek restitution from legislators at the polls. The overall level of counter-influence is determined by the availability and quality of information regarding business political favors. Information, in turn, is a function of both the visibility of the industry and its members and the redistributive aspects of the legislation.

The visibility of a firm or industry is to a great extent determined by the unit's economic size; greater size implies greater counter-influence.¹⁸ The attitude of society toward large concentrations of economic power is generally negative.¹⁹ Voters are more likely to tolerate a special favor for small economic actors than for larger ones

Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, pp. 282-299; and Victor Goldberg, "Institutional Change and the Quasi-Invisible Hand," Journal of Law and Economics 17 no. 2 (October, 1974), pp. 461-92.

¹⁸Other factors may certainly be relevant in the determination of the degree of visibility of a firm or industry. Blatant disregard for the community environment may substantially heighten the visibility of even a relatively small firm. For instance, the chemical dumping activities of a firm found to have endangered the lives of thousands of surrounding residents may make that firm virtually infamous. Additionally, the very peculiar nature of a firm's product may be the cause of widespread publicity regarding the firm's activities including those in the political marketplace.

¹⁹This observation was first made by Corwin D. Edwards, "Conglomerate Bigness as a Source of Power," Business Concentration and Price Policy, National Bureau of Economic Research Special Conference Series No. 5 (Princeton, New Jersey: Princeton University Press, 1955), pp. 331-60.

for several reasons. First, many voters are likely to view such a redistribution with either indifference or favor either because as Corwin Edwards notes, people are less suspicious of small concentrations of economic power²⁰ or because of society's apparent fascination with changes which appear to result in a progressive redistribution of wealth.²¹ Perhaps more importantly, special-interest legislation for a group of small agents is more likely to go unnoticed. It has been frequently noted that most voter-citizens consume little more than that information which they can provide to themselves in a nearly costless fashion. Radio, television, and newspaper, or some subset of these comprise the exclusive informational sources for many. Casual observation indicates that the news media is more likely to concentrate on a special-interest package for AT&T than a special depreciation allowance on chicken wire for chicken farmers. For example, the Senate Commerce Committee recently voted to exempt medical, legal, and other professional groups from anti-trust and fair-trade laws and initially this action received only minimal press coverage. The important point is that favors aimed at large economic units are more likely to be widely publicized than those aimed at small units. Thus, visibility will at

²⁰Ibid.

²¹This fascination is evidenced by the opposition by many to recent proposals to reform the personal income tax system from the present progressive rate scheme to a proportional one. This is despite the fact that effective tax rates under the present system may be best described as proportional. A study by Pechman and Okner shows a small tendency toward progression up to the \$100,000 to \$500,000 income bracket after which regressivity was observed. See J.A. Pechman and B.A. Oker, Who Bears The Tax Burden (Washington, D.C.: The Brookings Institute, 1974).

least partially determine the extent of information potential opponents will possess regarding business legislation.

The redistribution promised by the legislation will also affect the amount of information. Generally, more attention is paid to those bills which are designed to impose large economic losses on citizens or other business units. For any given level and dispersion of information, the amount of counter-influence will, of course, depend upon the expected costs and benefits. If the measure is designed so as not to reduce the income level of any group or individual by more than some very small amount, counter-influence may be insignificant. However, if the legislation promises to alter the income levels of group members by more than the anticipated costs of opposing the legislation, such opposition can be expected to materialize.²²

Visibility raises the costs of purchasing a given quantity of political influence because it raises the production costs to legislators due to the conspicuousness of the recipient of the favor. This conspicuousness may result in counter-influence which will negatively alter the legislator's chances of re-election or increase the opportunity costs of granting the favor. This occurs because the support by the legislators for special-interest legislation favoring a large concentration of economic power reduces the number of votes that will be

²²Bartlett points out that these costs include the costs of acquiring, shifting and disseminating information. This is particularly costly in his model because economic actors are presumed to have the incentive to subsidize selective information. In particular, see Randall Bartlett, Economic Foundations of Political Power (New York: The Free Press, 1973).

cast for them in the next election by directly alienating those voters. Simultaneously, the same effect may occur through indirect channels. Such actions by legislators may alienate campaign contributors thus reducing the amount which they will contribute to the next election. If it can be assumed that the level of campaign expenditures positively influences the number of votes cast for a candidate, then this additional passive form of counter-influence can be presumed to further reduce the expected number of votes cast in favor of the incumbents. This, of course, results in an upward shift of the cost function for the production of political influence. The additional passive form of counter-influence arising solely because the proposed legislation promises an enormous amount of redistribution will have the same effect.

Active counter-influence takes the form of lobbying, advertising campaigns, rallies, marches, "pay-offs," etc. The distinction between active and passive counter-influence is an important one because the former may influence the perceptions held by legislators regarding the extent of the latter. Selective information plays an important role in Randall Bartlett's model. The author comments:

It (government) realizes that voters make their decisions on the basis of perceived utility, but it is not certain as to the perceptions or preference functions of individuals. As a result it suffers from uncertainty as to which actions will really improve its vote position, and it is susceptible to influence in the form of subsidized information as to the nature and intensity of voter preference.²³

²³Ibid., p. 96.

Bartlett also notes:

...interested individuals may take advantage of this by providing government with selective information on the intensity of consumer preferences.²⁴

Thus, active counter-influence, to the extent that it provides selective information, effectively bids up the price of acquiring political influence. It does so by altering the perceptions legislators have regarding the size of the potential backlash should they support the measure, thus raising their anticipated production costs. "Pay-offs," if any are involved, up the "bidding" in the political marketplace and prod business favor seekers to offer a still higher price. Political "pay-offs" by the opposition effectively raise the price of political influence independently of the legislator's fears of passive voter backlash.²⁵

In summary, the existence of potential political profits is a sufficient condition for the provision of special interest favors. However, discrepancies between a legislator's espoused ideological stances and his voting record will result in a reduction in the probability of winning the next election when information regarding these discrepancies is available to voters at a relatively low cost. The cost of acquiring and disseminating such information declines with increases

²⁴Ibid., p. 56.

²⁵It is this aspect of counter-influence that is reflected in the Goldberg model. See Victor Goldberg, "Institutional Change and the Quasi-Invisible Hand," Journal of Law and Economics, 17 no. 2 (October, 1974), pp. 461-92.

in both the visibility of the benefactors and the redistributinal aspects of that legislation.

Figure 3.1 presents the relationship between the quantity of political influence produced and re-election probabilities for two industries of differing concentration and thus visibility. It is assumed that the business favors and their redistributinal characteristics are identical for each firm. The function labeled A represents this relationship for the case in which the favors are produced for the small inconspicuous firm. Over the initial quantity, production of political influence entails no reduction in successful re-election probabilities. After this range, additional favors for the firm are associated with increased production costs due to rising awareness on the part of voters regarding the enormity of the favors designed to benefit this one firm. The curve labeled B represents the same relationship for the relatively large conspicuous corporate unit. For the legislator, the first unit of influence produced entails a reduction in the probability of being re-elected. The visibility of the large economic unit inspires voter counter-influence over the entire range of production.

A reduction in the probability of winning the next election is considered a potential cost in the production of political influence and this cost has been argued to vary positively with the size of the business favor recipient.²⁶ However, campaign expenditures favorably alter the probability of winning the next election and a possible source

²⁶Note that this is an empirical question which will be tested.

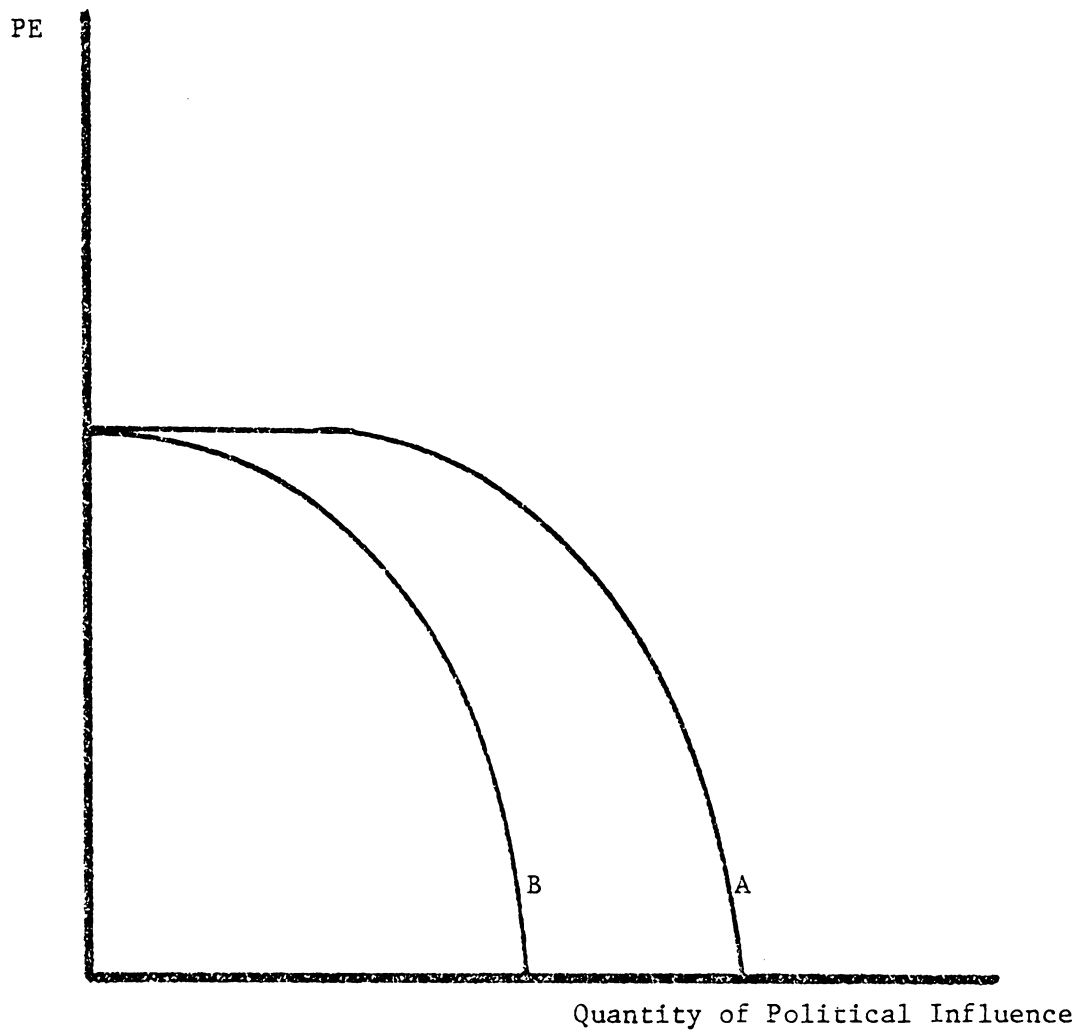


Figure 3.1

The Relationship Between the Quantity of Political Influence Produced For Corporate Units of Different Sizes and Re-Election Probabilities

of such funds is corporate special interest seekers.²⁷ Outright bribes may be used for a re-election campaign in addition to donations specified for that purpose. A corporate beneficiary of special interest legislation may direct an independent campaign for the supplier-legislator through the company's political action committees designed to promote the re-election of the legislator. Similarly, corporate political action committees may target the opponent of the favored politician in a race as the object of negative campaign ads.²⁸ The favor recipient might also sponsor a get-out-the-vote campaign among its employees who are likely to be supporters of the legislator. In fact, all of these activities were observed during the most recent national legislative elections. In summary, the sale of special interest favors increases the legislator's pecuniary and non-pecuniary income. Depending upon the form of that income it may be possible to divert it toward a re-election effort. To the extent that this is possible, the production of special interest legislation may serve to increase the legislator's probability of re-election.

Melvin J. Hinich and Peter C. Ordeshook, addressed this issue in their study of plurality maximization versus vote maximization strategies

²⁷William P. Welch, "The Economics of Campaign Funds," Public Choice XX (Winter, 1964), pp. 83-87; and Burton A. Abrams, "Legislative Profits and the Economic Theory of Representative Voting: An Empirical Investigation," Public Choice XXXI (Fall, 1977), p. 112.

²⁸The Federal Election Campaign Law does not prohibit this type of campaign activity by political action committees as long as the committee's activities are independent of a politician's election committee. Additionally, there is no limitation on funds spent for this purpose.

for electoral candidates.²⁹ They note that policies designed to favor the special interests of business are frequently in conflict with the interests of voter-citizens. Which group interests should take on greater importance in the formulation of policy positions by the future candidate? The smaller special interest group is likely to be a source of a greater amount of political funds than the more numerous voter-citizen group. Hinich and Ordeshook note that the efficiency with which campaign dollars can be converted into votes will determine the relative weights placed upon the interests of the two groups by the candidate and they hypothesize that the more competitive is the election, the greater will be the value placed upon campaign funds by the candidate. Assuming the mean strategy represents the preferred position for the majority of voter-citizens, then this would imply, the closer the race, the greater will be the distance between the candidate's chosen position and that preferred by the majority of his constituents.³⁰ Applying the Hinich-Ordeshook hypothesis to this investigation, the extent to which the interests of business will be represented and the competitiveness of the election would be expected to be positively correlated if it is assumed that wealth is not distributed independently of political views.³¹

²⁹Melvin J. Hinich and Peter C Ordeshook, "Plurality Maximization vs. Voter Maximization: A Spatial Analysis with Variable Participation," American Political Science Review 64 no. 3 (September, 1970), pp. 788-789.

³⁰Ibid.

³¹William P. Welch has noted that re-election probabilities are affected by campaign expenditures undertaken by the candidates opponents.

It is necessary to add precision to the analysis of the relationship between business political influence production and re-election prospects. It has been assumed that in addition to other factors the probability of re-election is a function of the level of counter-influence arising from the provision of business special interest favors as well as the level of campaign expenditures. These, in turn, are partially determined by the quantity of business political influence supplied. It is also widely recognized that the probability of re-election as well as campaign expenditures may be positively or negatively altered by factors such as the political entrepreneur's stance on unrelated issues or his wealth and personality. The legislator must maximize the utility function:

$$U = U(R_p, R_n, PE)$$

where

$$R_n = R_n(w, x, y, z).$$

The arguments in the last function represent such items as ideology, personal wealth, etc. The maximization is subject to the following constraints:

$$PE = PE(CI, CE, x, y),$$

$$CI = CI(QPI, V, w, y),$$

$$CE = CE(QPR, x, w, z),$$

$$QPI = QPI(CI, CE, w, x, z).$$

In light of the Hinich-Ordeshook hypothesis, greater campaign expenditures by challengers may have the effect of increasing the success of business in the political influence market. See William P. Welch, "The Economics of Campaign Funds," Public Choice XX (Winter, 1964), pp. 83-97.

The legislator's probability of re-election is represented by PE, CI refers to counter-influence resulting from the provision of business political influence, CE refers to campaign expenditures and V refers to visibility.

It is now necessary to explore those additional factors which will influence the costs of supplying political influence and thus the availability of special interest legislation for business. This is the task to which we now turn.

Let the political influence production cost function be defined as:

$$C = f(V, QPI, UN, GD, I, T, J, E, RG),$$

where V refers to the visibility factor determined by firm size, QPI refers to the quantity of political influence supplied and UN reflects the degree of unionization of the employees of the corporate beneficiary as well as the union's bargaining power. GD refers to the geographical dispersion of the firm or industry, I represents industry size, T measures legislative tenure and J and E refer to the judicial and executive branches of government, respectively. Finally, RG refers to the regulatory status of the firm or industry. The first two variables, V and QPI, capture the effects of counter-influence and the level of campaign expenditures on the political entrepreneur's utility function. These were discussed above. Now, each of the additional factors in the cost function will be investigated in turn.

The inclusion of a unionization variable in the cost function is based upon the recognition that the objections by voters to special interest business favors may be smaller than would otherwise be the case

if constituents perceive that those benefits may eventually be distributed to themselves. The relationship between unionization and production costs is derived from an observation made by Richard Posner.³² The inclusion of a unionization variable in the cost function is based upon the recognition that the objections by voters to special interest business favors may partially depend on the ability of some of the voters, as employees, to divide the benefits between the firm and themselves through the collective bargaining process. Those firms with the most powerful unions in superior bargaining positions would be expected to enjoy greater employee support for their special interest pursuits. For this reason, the sponsoring representative will encounter less voter opposition under these circumstances.

In his empirical model of economic industrial structure and political influence, John J. Siegfried included an index of geographical dispersion as explanatory variable.³³ The author hypothesized a positive relationship between political influence and geographical concentration.

This prediction was based on his observation that a firm or industry must meet some "threshold of importance" before it attracts the necessary

³²Richard Posner, "Theories of Economic Regulation," The Bell Journal of Economics and Management Science 5 no. 2 (Autumn, 1974), pp. 335-358.

³³John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence from the Federal Corporation Income Tax Program," (Ph.D dissertation, University of Wisconsin, 1972); Lester M. Salamon and John J. Siegfried, "Economic Power and Political Influence: The Impact of Industry Structure on Public Policy," American Political Science Review LXXI, no. 3 (September, 1977), pp. 1026-1043.

attention of its elected representatives.³⁴ Special interest legislation produced for a locationally concentrated industry employing a relatively large percentage of the constituents in a legislator's district will be more likely to enhance his political future than similar legislation produced for a less geographically concentrated industry or firm of equal size which consequently employs a smaller percentage of his constituents. In the words of Siegfried:

If the marginal benefit to the elected representative of championing tax relief for a constituent group is proportional to the number of voters affected by the bill...then the marginal benefit to an elected representative from a district including a large proportion of a very concentrated industry will exceed the marginal benefit to each of the (more numerous) elected representatives from districts including parts of a less geographically concentrated industry.³⁵

Siegfried also noted the existence of an alternative hypothesis which suggests a negative relationship between industrial geographical concentration and political influence. This theory was more fully developed by J.J. Pincus in his study of the Tariff Act of 1824.³⁶ He concluded that a geographically dispersed industry would be more successful in the pursuit of political influence than one which was geographically concentrated. This hypothesis is founded upon the

³⁴John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence from the Federal Corporation Income Tax Program" (Ph.D. dissertation, University of Wisconsin, 1972), p. 76.

³⁵Ibid., pp. 75-76.

³⁶J.J. Pincus, "Pressure Groups and the Patterns of Tariffs," Journal of Political Economy 83, no. 4 (August, 1975), pp. 757-778.

proposition that greater dispersion will increase the probability of securing the support of at least one, perhaps many legislators. The support of greater numbers of congressmen should promise to increase legislative success.

In this study the importance of geographical dispersion in the political influence marketplace originates because of its effects upon production costs. The first hypothesis proposed by Siegfried implies that geographical concentration may insure that little, if any counter-influence will be confronted in the legislator's home district as a result of business favors produced for the local industry. Voter support for the industry's position may be nearly universal at home due to its overwhelming effect upon the social and economic environment of the locality. Supporters may include employees as well as others who may enjoy a net benefit from the state and local taxes paid by the corporate unit. Similarly, support may originate from voters who perceive the community efforts on the part of the firm or industry as being beneficial to themselves. In this case, special interest legislation for the firm or industry by the district's representatives is unlikely to meet with counter-influence. It follows that the legislators will not encounter a reduction in re-election probabilities as a result of their support. From this perspective, sponsors of legislation for a geographically dispersed corporation of identical size would not be expected to enjoy such a favorable production cost situation.

According to the above argument, greater geographical concentration provides for a greater probability that a business favor-seeker will find a legislative sponsor. However, sponsorship is only a first step because

successful securement of political influence requires approval of the congressional majority. It is necessary that the sponsor of a bill seek the necessary support and transactions costs may be substantial. Special interest legislation, unlike that which produces generalized and nearly universal benefits is unlikely to immediately inspire the necessary support for passage. Instead, substantial vote-trading will be a necessary requirement for legislative success. The amount of voter-trading necessary on the part of the bills sponsored must also be considered a cost of production. In the words of W. Mark Crain and Robert D. Tollison, "Arrangements to share the returns from measures that are ultimately passed by the legislature will be made through vote-trading."³⁷ The exchange which takes place may result in the actual transfer of a portion of the "bribe," or, what is more likely, the sponsor of favorable legislation for a home district business constituent may secure the necessary votes by informally contracting to vote favorably on "pet" issues of the partners to the exchange. Such agreements may require a political entrepreneur to take stances on issues in the future which may be unpopular with this electorate.³⁸

Consider two industries, the first of which is concentrated in a single geographical area while the second is characterized by many smaller plants spread across all fifty states. Assume that each industry is seeking the passage of legislation which promises to provide benefits

³⁷W. Mark Crain and Robert D. Tollison, "The Sizes of Majorities," Southern Economic Journal 46 no. 3 (January, 1980); p. 727.

³⁸J.J. Pincus, "Pressure Groups and the Pattern of Tariffs," Journal of Political Economy 83 no. 4(August, 1975), p. 769.

exclusively for itself. The first will most likely command the support of its district representatives in its special interest pursuits. However, the non-generalized benefits promised by the bill gives legislators' from other districts no reason to offer their support. In fact, for reasons previously discussed, such support would be expected to negatively alter the re-election prospects of representatives outside the industry's district. A greater amount of vote-trading will be necessary to produce a special interest favor for the geographically concentrated industry. This also implies an additional requirement of time and effort. These cost requirements are due to the relatively unsympathetic stance of legislators from other geographical areas.

For the geographically dispersed industry which is relatively small, the "threshold of importance" might never be met. However, an industry whose size is great enough to allow it to meet or surpass the necessary threshold requirement may enjoy advantages in the political influence marketplace because of its geographical dispersion. At least some legislators from each state may support the special interest measure sought by this group. Consequently, less vote-trading would be required by the bill's sponsors for successful passage. It is contended that the Pincus theory regarding the relationship between geographical dispersion and political influence is explanatorily superior.

Following the suggestion of Salamon and Siegfried, industry size is included in the legislative cost function. The reason for its incorporation can be established very briefly.³⁹ It has been assumed

³⁹See John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence

that unionization and geographical dispersion affect production costs at least partially because both influence the level of constituent opposition. Then for the same reasons the overall number of persons employed by the industry will affect costs in a similar manner. The voter-citizen whose lives are positively influenced by the continued prosperous operation of the industry are unlikely to be sources of opposition.⁴⁰ Of course, this will be especially true if the industries' employees are in a position to usurp a large portion of the benefits for themselves. However, even in the absence of the ability to do so, employees will most likely be supportive of measures designed to benefit the industry in which they are employed. This will be true to the extent that a political favor promises to deliver industry-wide benefits.

Legislative tenure is included as a factor in the cost function because as Crain and Tollison point out, "...representatives and senators are not homogeneous in their ability to influence expenditure or employment decisions if institutional variables such as seniority influence their productivity."⁴¹ Differences in tenure can be expected to influence production costs. Specifically, cost will differ inversely with the tenure of each, *ceteris paribus*. For senior representatives

From the Federal Corporation Income Tax Program" (Ph.D dissertation, University of Wisconsin, 1972); and Lester M. Salamon and John J. Siegfried, "Economic Power and Political Influence: The Impact of Industry Structure on Public Policy," American Political Science Review LXXI, no. 3 (September, 1977), pp. 1026-1043.

⁴⁰Ibid.

⁴¹W. Mark Crain and Robert D. Tollison, "The Influence of Representation on Public Policy," The Journal of Legal Studies VI no. 2 (June, 1977), p. 355.

less time and effort will be required to secure the necessary support for passage of special interest legislation. Additionally, the exchange ratio in the vote trading process will be more favorable to the senior legislator.

This is particularly true if the durability aspect of special interest legislation is contemplated. In the words of Landes and Posner:

Consider the tradition...of appointing committee chairmen on the basis of seniority. The use of seniority tends to channel chairmanships to holders of "safe" congressional seats--congressmen whose tenure can be expected to be long and who are therefore more likely to honor the commitments made by Congress.⁴²

Opposition to special interest legislation may continue long after it is passed. If so, legislators may attempt to renege on the legislative contract.⁴³ It would appear that senior members enjoy a greater probability of maintaining the office during future terms. Thus, we can conclude seniority enables the political entrepreneur to offer a more durable product. Or, alternatively speaking, highly tenured representatives enjoy a cost advantage in the production of durable legislation.

Tenure also may be indicative of the amount of counter-influence a politician is able to absorb before seriously endangering his re-

⁴²William M. Landes and Richard A. Posner, "The Independent Judiciary in an Interest-Group Perspective," The Journal of Law and Economics XVII no. 3 (December, 1975), p. 878.

⁴³Ibid. Note that in the Landes and Posner framework, the greater is the percentage of new legislators making up the body, the less durable will be the special interest favor.

election probabilities. One reason a politician who enjoys long tenure does so may be because of a consistent lack of political opposition in the past. For the politician who enjoyed large pluralities in past elections and who expects to have a similar favorable situation during the next competition, the reduction in voter loyalty attributable to the provision of favors for business will not necessarily result in defeat. A politician in such a superior political position could absorb a substantial reduction in votes before expected plurality would fall to zero. The above argument merely states that across politicians, cost, as measured by the value of the number of votes lost, are a declining function of expected plurality.

Another reason why more senior legislators who take an unpopular stance on an issue may encounter a smaller reduction in votes than their junior colleagues is that the past performance of senior representatives may serve as insulation against significant voter "backlash." First, past legislative successes may result in a greater tolerance on the part of voters for a politician's indiscretions. Second, a freshman replacement will most likely be unable to wield an equal amount of power in the legislative body. This is because the more senior members will quite likely hold more important committee seats and will therefore be better able to provide the favors for their constituents.

The role of the judicial and executive branches is of importance in considering the costs of producing legislative political influence through the ability of these two branches of government to influence the durability of political favors once produced. First, consider the judicial branch. The Landes and Posner model demonstrates that an

independent judiciary may serve to raise the durability of special interest legislation.⁴⁴

An independent judiciary is defined as one in which judges are appointed with tenure for life. This removes the judges from the political process once appointed and eliminates the possibility that judges will allow political considerations to influence their decisions. In the United States, all federal judges are independent according to this definition. The authors argue that there will exist a tendency for the independent judiciary to enforce previously passed legislation in accordance with the intent of the original legislature. This predicted judicial behavior derives from the coercive powers held by the legislative and executive branches over the judiciary. Landes and Posner argue that it is in the interest of the judiciary to minimize the exertion of coercion by the other two governmental branches in order to maintain their independence. They conclude that this requires the judiciary to avoid an element of unpredictability in its interpretations. This, in turn, calls for judicial decisions which are based upon the intent of the sponsoring legislature.⁴⁵

Clearly, the judicial behavior predicted by the Landes and Posner model would serve to raise the durability of special interest legislation and provide sponsoring representatives with the ability to produce a superior product for any given level of cost. Alternatively, non-support judicial decisions would result in higher production costs of a

⁴⁴Ibid.

⁴⁵Ibid., p. 885.

durable business favor. The sponsors may be forced to exert greater time and effort in designing the working of each bill to eliminate any possibility of ambiguities in order to reduce the probability of a judicial decision which would reverse the intent of the legislation. Or, the special interest legislation may have to be accompanied by a successful constitutional change in order to avoid a similar reversal. Thus, as judicial interpretations of law reflect the intent of the originating legislature to a greater or lesser degree over time, we would expect production costs to vary for all of the members of the legislative body.

The executive branch of government has been included as a cost-influencing factor because of observations made by W. Mark Crain and Robert Tollison in an article in which they extend the Landes and Posner theory to the executive branch of government.⁴⁶ The authors argue, "the veto power (of the executive branch) acts to increase the returns from legislative contracts with special interests by making these contracts harder to repeal, more than it acts to increase the costs of passing legislation in the first place."⁴⁷ Thus, the role of the executive branch rests upon the ability of the veto to raise the durability of legislation in the same way that the independent judiciary does in the Landes and Posner model. It then follows that the executive veto serves to alter the production costs conditions of the suppliers of

⁴⁶W. Mark Crain and Robert D. Tollison, "The Executive Branch in an Interest Group Theory of Government," Journal of Legal Studies VIII no. 3 (June, 1979), pp. 555-568.

⁴⁷Ibid., p. 560.

special interest legislation to the extent that the propensity of the executive to enforce legislative contracts changes over time.

It is important to consider regulation in this study for two reasons. First, regulation itself, may be a source of political benefits or costs for a firm or industry. Secondly, the existing regulatory status of the corporate unit may influence the cost of producing other forms of business political influence. The legislature is typically the source of business regulation delegating the administration of the law to a regulatory bureau. Regulation may be economic or what is commonly referred to as "social" in nature. Constraints may affect pricing, entry, market coverage, pollution emissions, product safety, etc. The public interest theory of regulation suggests that regulations are imposed for the "correction of inefficient or inequitable market practices."⁴⁸ This theory, in its simplest interpretation, suggests that the regulatory process imposes costs upon the affected industries, exclusively. To the contrary, the "capture theory" of regulation suggests that regulation is simply a form of political influence supplied "in response...to groups struggling among themselves to maximize the incomes of their members."⁴⁹ From this perspective, regulation is a goal of political influence.

However, regulation is a unique form of political influence because, once acquired, it may become less costly to secure additional units of political influence which do not necessarily have to be in the form of

⁴⁸Richard Posner, "Theories of Economic Regulation," The Bell Journal of Economics and Management Science 5 no. 2 (Autumn, 1974), p. 335.

⁴⁹Ibid.

regulation. The close ties of the regulated firm with the regulators coupled with the interdependence of the agency and the legislature creates an environment which is conducive to the successful procurement of political influence. Consider the agency as the vehicle through which legislative political benefits are secured. First, this arrangement lowers the costs to legislators of discovering what is desired by the firm. Second, the firm, through the agency, will be able to provide information designed to publicly demonstrate its "need" for the desired favor. The latter possibility implies that voter opposition and thus the costs of producing political influence will be lower. This is particularly true for firms facing economic regulation. For instance, the political favor may be publicly viewed as a compensatory measure which is necessary to avoid future price increases.

In this chapter an attempt has been made to identify and evaluate those structural and environmental factors characterizing a business favor recipient's market which may be the source of production cost differentials for legislators. Of course, the extent to which price reflects costs will depend upon whether or not there exists a sufficient amount of competition, or alternatively speaking, upon the existence and severity of barriers to entry.

In assessing the degree of competitiveness of the political marketplace it is important to note that the provision of special interest legislation requires joint production by more than fifty percent of the legislators, assuming majority rule. Thus, the legislative

"firms" are the political coalitions which exist at any given time.⁵⁰ The largest legislative firm is the one which composes the majority. George Stigler argues that the larger is the legislative majority, the greater will be its control over governmental activities.⁵¹ However, he also notes that beyond some level the majority will experience diminishing returns to size so that increases in the size of the majority "firm" should be observed to have a positive but diminishing effect on the rate of special interest legislation produced. The "firms" or coalitions which make up the market may be expected to change depending upon the legislative issue and upon party affiliation. The diminishing returns to scale noted by Stigler coupled with the dynamic nature of coalition formation suggests that there may exist a sufficiently strong amount of competition to insure that the dollar benefit of the legislation is not usurped entirely by the legislative firm. In fact, it is possible that the market is competitive in which case the net gain would be received entirely by business special interest purchasers.

In any event, the type of market structure which describes the legislative supply of political favors will influence the actual quantity produced as well as the distribution of the profits between the legislators and the business purchasers. Ultimately the distribution of any profits among legislators will be determined by the distribution of

⁵⁰This is Mark Crain's definition of the legislative firm. See W. Mark Crain, "Costs and Output in the Legislative Firm," The Journal of Legal Studies, VIII no. 3 (June, 1979), pp. 607-621.

⁵¹George J. Stigler, "Economic Competition and Political Competition," Public Choice 13 (Fall, 1972), pp. 91-106.

sponsorship and the extent of opposition as reflected in the amount of vote trading which is necessary to secure passage. Thus, the arrangements to share in the profits are the outcome of a cooperative game in which agreement among the players is necessary.

The emphasis here is upon the possibility of variations in the supply conditions faced by small and large business units. Observed differences in supply across firms and industries may be expected to reflect production cost differential to the extent that the legislative political influence market is competitive. The above observations suggest that a sufficient amount of competition may be operational. However, this is an empirical question which will be subjected to testing in what follows.

It is now necessary to evaluate the forces which determine the demand for political influence. The next two chapters will be devoted to this endeavor.

CHAPTER 4

THE FIRM'S DEMAND FOR LEGISLATIVE POLITICAL INFLUENCE

I. Introduction

There does not exist a widely accepted and solidly grounded theory concerning precisely what factors motivate firms to pursue governmental favors. A review of the literature reveals that much of the research in this area must be accredited to political scientists.¹ However, most of these studies fail to address the relevant question of what determines the profitability of such activity and instead assume the existence of almost unlimited potential benefits from the acquisition of political influence. From this point, much of the research proceeds to concentrate on the consequences of a "pluralistic society."² The few attempts to address the behavioral question appear to have been made by economists.³

¹See Chapter 2 for a discussion of this literature.

²Ibid.

³For instance, see Randall Bartlett Economic Foundations of Political Power (New York: The Free Press, 1973); and Randall Bartlett, "An Economic Theory of Political Behavior: Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, July 1980, pp. 282-299, and Lester M. Salamon and John J. Siegfried, "Economic Power and Political Influence: The Impact of Industry Structure on Public Policy," American Political Science Review LXXI, no. 3 (September, 1977), pp. 1026-1043. It should be noted that all of the above mentioned authors are economists except for Lester M. Salamon who is a political scientist.

The most important question to be addressed in this dissertation is whether or not political power can be expected to grow positively and disproportionately with firm size. More specifically, does size in and of itself, determine the level of successful investment in political influence?

The purpose of this chapter is to put forth those factors which determine the expected profitability for an individual firm of investment in political influence. I will endeavor to identify those characteristics which are likely to determine the level of political influence pursued by the firm. It will first be assumed that the benefits from such legislation are known to accrue exclusively to the firm pursuing influence. Later this assumption will be dropped to allow for the possibility of more generally dispersed benefits. To accommodate the described task, I will employ the familiar model of a profit-maximizing firm facing a simple production function. I will first attempt to demonstrate that the present-day firm will incorporate government into its production function and that government must therefore be considered a factor of production, albeit, a peculiar one. In the third section, a model of a relatively small firm will be developed; the firm is assumed to be a price-taker in the market in which it operates. It will be argued that successful investment in political influence may alter both cost and the productivity of the inputs which the firm employs of the demand it faces. A similar model will be present in Section IV in which the firm in question is a relatively large firm that has power to influence price in the product market in which it functions which follows because it is considered to be the only firm.

Given the production function for political influence developed in the last chapter, the implications of the model suggests that an industry characterized by relatively small firms will have a greater demand for legislative political influence than an industry of the same size characterized by a larger single firm. Section V of this chapter will attempt to explore the methods by which the larger firm may manipulate the profitability of investment in political influence. Finally, some additional considerations will be considered including the effects of non-profit maximizing behavior and regulation.

Discussion in this chapter will be confined to an analysis of government as a factor of production from the viewpoint of the individual firm acting under the supposition that its behavior will not alter the behavior of any other firm, unless otherwise stated. In other words, strategic considerations are ignored. Consequently, the public goods and accompanying "free-rider" aspects surrounding the provision of collective favors will be ignored. This is necessary in order to isolate the relevant incentives, one at a time. No study could ignore these important issues however. Collective provision of political influence will be addressed in a subsequent chapter.

II. Government As an Input

Organizational theorists, whose common unit of study is the individual firm, display what appears to be only limited appreciation of the importance of business-government interaction.⁴ These scholars have

⁴For a representative example see Harold J. Leavitt, William R. Dill and Henry B. Eying, The Organizational World (New York: Harcourt Brace Jovanovich, Inc., 1973).

long recognized that the firm incorporates the environment in which it operates in its decision-making process, as any intermediate textbook in this area will demonstrate. However, little attention has been paid to the propensity of firms to attempt to alter that environment.⁵ As indicated earlier, recognition of the incentives to do so can be accredited primarily to economists.

In the latter case of study two attempts at the theoretical level to deal specifically with the trade relationship between the business unit and the legislative branch of government stand out among the others. The first study by Randall Bartlett derives a production function for the firm's manufacture of political influence which he assumes will result in some increase in real gross income.⁶ From this production function, a cost function is derived and it is shown that influence will be undertaken wherever there is a strong possibility of a net gain from political influence. Such a model contributed to the examination of the general decision to invest in political influence. However, this approach reveals little about the type of environment which can be expected to maximize the profitability of political influence for a form. The second work by Victor Goldberg also does little to illuminate this

⁵There is an exception to this observation. Pfeffer and Salancik do recognize the manipulation of the external environment as an explicit goal of an organization. See Jeffrey Pfeffer and Gerald Salancik, The External Control of Organizations: A Resource Dependence Perspective (New York: Harper and Row Publishers, 1978).

⁶Randall Bartlett, "An Economic Theory of Political Behavior: Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceeding of a Conference Sponsored by The Bureau of Economics. Federal Trade Commission, July, 1980, pp. 282-299.

problem.⁷ In the Bartlett and Goldberg works large corporations would be expected to invest more in politics than the small unit, but not necessarily proportionately more. While these studies incorporate the incentives of the business community to attempt to alter political outcomes in their respective models, specificity is lacking. Neither study formally incorporates the government into the firm's production function. Thus, the approach of each differs markedly from the approach taken here. Both authors contend that the larger firms can be expected to have a greater propensity to invest in political influence because of the assumption that these firms will have less binding resource constraints. However, no conclusions can be drawn regarding the effect of firm size upon the relative profitability of investment in political influence. To do so requires an understanding of the role of government as a factor of production.

It will be beneficial to begin developing such an understanding by discussing briefly some of the specific forms which government-business interaction may take. For the purpose at hand, it is convenient to view government's ability to alter the profit possibilities for a firm as being limited to its ability to influence the firm's costs or its revenues. The following is an all-inclusive list of possible interacting modes of government with business compiled by Edwin Epstein:⁸

⁷Victor Goldberg, "Institutional Change and the Quasi-Invisible Hand," Journal of Law and Economics 17 no. 2 (October, 1974), pp. 461-92.

⁸Edwin M. Epstein, "Firm Size and Structure, Market Power and Business Political Influence: A Review of the Literature," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980. p. 242. Note that tariffs which are included as a form of business-government interaction are not part of the original list compiled by Epstein.

1. Regulation
2. Sponsorship and promotion
3. Risk-taking and guarantorship
4. Allocation of tangible and intangible property interests
5. Formal and informal planning
6. Stabilization
7. Purchasing
8. Taxation and Tariffs
9. Collaboration and joint-venturing
10. Anti-trust

It seems likely that any specific legislative measure designed to effect a firm or group of firms could fit into one of these categories. It will be beneficial to separate these profit-altering inter-acting modes into two groups: Those which primarily affect the demand conditions facing the firm and those which can be expected to affect the firm's cost conditions.

Certainly regulation, sponsorship and promotion, purchasing, guarantorship and taxation and tariff activities are capable of altering the demand conditions facing a firm. Sponsorship and promotional activities may serve to acquire public recognition of the firm's product and may effect sales levels. Regulatory measures may be designed to eliminate otherwise potential competition from the market, thus resulting in a higher level of demand for the remaining firms. A sales tax may also alter sales levels. Obviously, the decision by the government to purchase the output of a firm or industry will result in an increased demand for its product. Additionally, guarantorship may alter demand conditions by reducing the risk of contract breach for purchasers.⁹ On the cost side, it is immediately evident that four of the items mentioned above may also alter this determinant of the firm's profitability picture. Environmental

⁹Guarantorship may be defined as an agreement by which the government assumes the responsibility of assuring fulfillment of a firm's debts or obligations including default or miscarriage of contracts.

and safety regulations most often serve to raise production costs. Direct sponsorship and promotion of private industry by government may reduce necessary advertising outlays for the target firm or group of firms. Taxation often reduces profit levels and tax "incentives" often can operate as a production subsidy, lowering the effective costs of production. Risk-taking and guarantorship, planning, collaboration and joint-venturing all serve to reduce production cost levels below what they would be in the absence of such programs. Economic stabilization objectives such as high employment may require industrial subsidization policies from the viewpoint of government representatives. Anti-trust policy will inevitably harm some firms at the benefit of their competitors. Finally, the allocation of tangible and intangible property may be viewed as the distribution of limited property rights of commonly owned goods such as minimal extraction rights on Federal lands. Alternatively, the allocation of tangible and intangible property may be viewed as a generalization of the others--the continual redefinition of "quasi-property rights," which has resulted in the receipt of costs and benefits by the actors of the system. Government may therefore be considered to be an input in the production process. Alterations in the quantity of the governmental input will effect output and costs as well as the marginal productivity of other inputs.

It will become obvious that the particular type of interacting mode will not effect the analysis of the firm's demand for political influence as long as the benefits from political influence accrue solely to the firm or group of firms seeking them. Certainly stabilization policies designed to aid a firm or group of firms is likely to have far reaching beneficial effects on other segments of society. Consequently, the analysis which

follows is not applicable to the interacting mode of stabilization. Rather, taxation will be assumed to be the specific mode of connection between business and government throughout the remainder of this chapter.

III. The Small Firm's Demand for Political Influence

It is assumed that the firm under study is considering investment in political influence for the purpose of acquiring a special depreciation allowance on capital. The analysis which follows can be altered to accommodate any investment in political influence which succeeds in reducing costs. It would require several additional modifications for the model to accommodate investment in legislative influence which results in demand modifications. However, the implications would be expected to be similar from the viewpoint of the firm. The cost reduction under study arising from successful investment in political influence, results in the subsidization of the capital input, and, as it will be shown, also reduces the decision-making costs of management.

To establish a solidly grounded theory it is necessary to specify the determinants of the benefits of political influence. Consequently, it will be beneficial to view the demand for political influence as a derived demand rather than to imply that political influence will provide benefits for its direct attributes. It will be necessary to derive a production function for the representative firm. This is the task at hand.

It is assumed that the firm in question is a profit-maximizing manufacturing firm operating as a price-taker in its production market environment. As indicated earlier, an attempt will be made later in this chapter to investigate the effects of alternative theories of firm behavior upon the pursuit of political influence, but presently no allowance is made

for the maximization of alternative goals. Assume, also, that the market for all of the factors which the firm employs, except political influence, are characterized by competitive attributes. The political influence factor market exhibits the peculiar characteristics discussed in Chapter 3. The cost of producing an additional unit of political influence for a particular "customer" rises after some point due to the visibility factor. A "customer" is here defined as a single firm and will be extended at a later point to cover groups of firms. Additionally, the greater is the firm's visibility, the greater will be the production cost per unit of influence to the producer-legislator. The production cost differences will, of course, be reflected in the price to the "customer."

The firm's production function can be stated as follows:

$$q_x = f(k, l, n, m)$$

where q_x represents the quantity of good X which is the output produced by the firm and k , l , n and m represent the quantities of capital (k), labor (l), land (n) and management (m), respectively. Output is then a specific function of the quantities of these resource.

In the traditional treatment of the firm, resources used in production are usually divided into the following four categories: land, labor, capital and entrepreneurship. The latter is specific to each individual and "reflects the difference between the productivity of his resources viewed solely as hired resources and their productivity when owned by his firm."¹⁰ Thus, entrepreneurship is a fixed input and it will be considered

¹⁰Milton Friedman, Price Theory, A Provisional Text (Chicago,: Aldine Publishing Co., 1962), p. 95.

such. Management resources are viewed as being assigned with the tasks of co-ordinating production activity and generating alternative routes to profit maximization when problems are confronted. Thus, the tasks of management personnel and the entrepreneur are essentially the same; the major difference is that the former is a hired resource. Thus, a firm owner may extend the problem solving capacity of the firm by hiring managers more capable than himself. However, the owner's ability to do so (assuming a perfect capital market) is limited by that person's own management capacity. Thus, management is not inherently a fixed resource. It is a factor to be observed in this study and will thus be included as one of the variable inputs.

For purposes of simplicity, assume the representative firm employs only two variable inputs, namely, capital and management. Initially, the firm employs zero units of political influence. Thus, the production function becomes:

$$q_x = f(k, m).$$

It is now possible to derive from the production function, the necessary marginal conditions for profit maximization. Let the firm's optimal marginal conditions be met in the product market such that:

$$MC_x = MR_x,$$

where the subscript x indicates the product produced by this firm. Given the assumption of two variable factors, in the usual manner we get:

$$\frac{P_k}{MPP_k} = \frac{P_m}{MPP_m}.$$

This condition indicates that the firm is employing the optimal combination of its variable resource inputs. Finally, combining the optimality conditions in both the product and factor markets we obtain:

$$\frac{P_k}{MPP_k} = \frac{P_m}{MPP_m} = MC_x = MR_x.$$

Assuming competition in both the production factor markets, allow M_1 to equal the quantity of the management factor which is consistent with the following equality:

$$P_x \frac{\partial x}{\partial m} = P_k.$$

Similarly, let K_1 equal the quantity of capital which is consistent with the following equality:

$$P_x \frac{\partial x}{\partial k} = P_k.$$

The appropriate second-order conditions are assumed to hold throughout. Thus, the traditional equilibrium situation for the competitive firm buying its factors in competitive factor markets are met.

Allow now, for the possibility of government to alter the environment and hence, the profit conditions of the firm. The representative firm is considering investment to acquire a unit of a tax concession for capital employed by the firm. It is possible to avoid complications involved in the measurement of the size of the legislative "favor" by referring to quantities as "units." The decision as to how many units of tax "favors" to purchase will depend upon the costs and benefits are perceived by the firm. The costs are discernible by interviewing the appropriate

legislators. It is assumed that the costs of each unique type of "favor" are themselves, unique and must be sought out everytime a new type of legislative favor is considered. If the tax "favors" were to apply to all members of the industry the individual firm's cost might be calculated on the basis of the firm's market share. The public goods problems of a multi-firm industry's investment in political influence are deliberately ignored at this point. For the purpose at hand it is assumed that the benefits to the individual firm are independent of the behavior of other firms, ignoring strategic considerations. This is necessary because we are interested in the firm's decision to invest in political influence based upon its individual cost and benefit calculations uninhibited by inter-dependencies of industry members. It should be noted that this is not an unrealistic scenario. There are certainly many cases in which benefits can accrue to an individual firm. For instance, a firm may secure interest free funds or funds provided at a reduced rate from the local collective unit for expansion purposes; or the firm may benefit from a widening of the entrance to its employee parking lot provided by the city for the purpose of improving traffic flow.

Recognition of government as a potential source of benefits or costs presents the problem of the manner in which government must be incorporated into the production function. The expansion of the governmental sphere has meant an increasing willingness on the part of government to alter existing property rights and "quasi-property rights." From the viewpoint of the actions in the economic system, the operating environment which was once considered a given has now become a variable, the nature of which is alterable at a cost, like other variables which enter the production

function of a firm. Once the new role of government is recognized by the firm government becomes a newly created resource, available to all at a price. This is a technological change which will consequently alter the firm's production function and its demand for factors of production for reasons to be discussed below.

One of the constraints on the firm's ability to secure profits is the technological possibilities it faces for producing goods. Prior to the expansion of the governmental sphere many firms did not find employment of the governmental input profitable. This situation was altered as government's role in the economic sphere expanded, and along with it the categories of issues into which government was willing to delve.

Recognizing the role of government, as an input, the production function becomes:

$$q_x = f(k, l, n, m, i),$$

where i measures the quantity of political influence, I . The peculiarity of political influence as a factor of production originates from its effects upon the costs and productivity of other factors rather than for its innate individual attributes. Thus, the production function can now be redefined as:

$$q_x = f[k, i_k, l, i_l, n, i_n, m, i_m].$$

The political influence variables appear in this manner in the production function because an additional unit of political influence may, and normally will affect the cost of the factor to the firm. The larger the number of political influence units acquired by the firm, the smaller will

be the cost of the particular factor affected by that influence. This method of incorporating government into the firm's production function implies that the firm can indirectly substitute government for other factors of production. Investment in political influence will alter the cost and productivity of the conventional resources and will lead to factor substitution between these resources. The simplified production function is then:

$$q_x = f[k, i_k, m, i_m].$$

Recall that the firm is considering investment in political influence for the purpose of securing a legislative tax measure which will subsidize its capital inputs. From the viewpoint of the firm, successful investment in this type of political influence will lower the cost of acquiring capital. However, this is not the only outcome of the investment. The technological change brought about by the increasing importance of government will alter the productivity of the other resource--namely management for the firm.

This observation stems from the work of others, particularly Oliver Williamson. Williamson has drawn attention to the importance of employing a transactions cost approach to firm behavior. He states that the frequent failure to incorporate such an approach in an analysis of the firm tends to present the firm as an over-simplified production function in which the product it will produce and the resources to be employed in that process are taken as given, leading often to incorrect conclusions.¹¹ Adopting

¹¹Oliver Williamson, "The Economics of Antitrust: Transactions Costs Considerations," University of Pennsylvania Law Review, 22 no. 1 (June, 1974), pp. 1439-1496. Williamson implicitly argues that economists

Williamson's reasoning, I will attempt to demonstrate that a reduction in internal decision-making costs is an extremely important benefit to be derived from successful investment in political influence.

Coase was perhaps the first to recognize the importance of transactions costs and offered the theory that the firm, representing an alternative to market transactions, may be considered to be a way of economizing on such costs.¹² The resulting rearrangement of production may then take place without bargaining between competing resource property owners. The firm thus substitutes managerial decisions for market solutions. However, Coase also recognized that "The administrative costs of organizing transactions within the firm may also be high, and particularly so when many diverse activities are brought within the control of a single organization."¹³ Similarly, Williamson noted that internal organization, as opposed to market organization often serves to reduce these costs, but will not eliminate them entirely.¹⁴ The same author proposes that the sources of these transactions costs are opportunism and bounded

frequently over-simplify matters by failing to consider transactions costs. This failure tends to understate cost relative to benefits which may cause economists' predictions to deviate from the performance of the economic actors under study.

¹²Ronald Coase, "The Nature of the Firm," Economica, New Series, 386 (1937), pp. 386-405; and in Readings in Price Theory, George J. Stigler and Kenneth E. Boulding, eds. (Chicago: Richard D. Irwin, 1952).

¹³Ronald Coase, "The Problem of Social Cost," Journal of Law and Economics, 3 no. 1 (October, 1960), pp. 1-44.

¹⁴Oliver Williamson, "The Economics of Antitrust: Transactions Costs Considerations," University of Pennsylvania Law Review 22 no. 1 (June, 1974), p. 1446.

rationality.¹⁵ These items are the source of both external and internal transactional cost occurring in the marketplace between contracting parties and within the firm, respectively.

Opportunistic behavior refers here to activities which may enhance the subjective evaluation of an individual employee's position at the expense of the firm. For the smallest owner-entrepreneur, this behavior is irrelevant because the individual cannot be separated from the firm. For the large firm in which management functions are assigned to numerous individuals, this behavior presents a problem that must be addressed. However, as noted previously, explorations into the effects of opportunistic behavior will be reserved for the final section of this chapter. The assumption of profit maximization is assumed to hold.

Regarding bounded rationality, Herbert Simon has noted that "the capacity of the human mind for formulating and solving complex problems is very small compared with the size of the problems whose solution is required for objectively rational behavior in the real world...."¹⁶ It is important to note that bounded rationality problems exist in firms of all sizes. Communication difficulties may exacerbate the problem of bounded rationality in larger firms, but the inability to process all relevant information to solve complex problems presents itself even in the smallest firms. The amounts of entrepreneurial ability possessed by different firm owners and the abilities of their managers will differ and so,

¹⁵Ibid., p. 1444.

¹⁶Herbert Simon, Models of Man (New York: John Wiley and Sons, 1957), p. 198.

consequently, will the "bounds" upon "rationality." Nevertheless, bounds will exist.

The following is a description of the decision-making problem of bounded rationality by Feldman and Kanter:

For even moderately complex problems...the entire decision tree cannot be generated. There are several reasons why this is so: one is....The number of alternative paths in complex decision problems is very large....A second reason is that in most decision situations...neither the alternative paths nor a rule for generating them is available....A third reason is...for many problems, consequences of alternatives are difficult, if not impossible to estimate.¹⁷

Investment in political influence may serve to attenuate the bounded rationality problem for the firm. Government stabilization policies and government purchasing contracts will reduce the complexity of decisions to be made. Likewise, favorable regulatory measures, risk-taking and guarantorship agreements, sponsorship, planning arrangements and collaboration, and favorable changes in anti-trust laws may serve to reduce internal transaction costs by economizing on the bounded rationality problem. Favorable taxation and tariff measures and favorable allocation of property rights serve the same purpose.

For the firm pursuing a favorable capital depreciation measure, it is possible to discuss more specifically the effects upon internal decision making costs and thus, on the marginal physical product of management. Assuming that a firm would not employ a factor which did not enhance its

¹⁷Julian Feldman and Herschel E. Kanter, "Organizational Decision-Making," in Handbook of Organizations, James G. March, ed. (Chicago: Rand McNally, 1965), p. 615.

production process, capital must be an important resource to this firm. Assuming that all the optimality conditions for factor employment are met for this firm a rise in the price of capital would alter the profit maximizing combination of K and M to be used to produce a given level of output. Specifically, the substitution and scale effects would both serve to reduce the quantity of capital used under the assumption that capital and management are not inferior inputs. In this simple two factor model, the firm would reduce overall output and employment of both factors, while simultaneously increasing the amount of M employed relative to K. This implies that relatively more administrative resources will be used in lieu of capital. Presumably, the ratio of management to capital will increase because management skills will be necessary to assure that the smaller amount of capital employed is put to its most productive use.

For example, if the capital units represent machines, the marginal physical product of the machines was based upon their physical attributes when purchased. Then after the price change at least some worn out machines will not be replaced and more management skills will be needed relative to capital to perhaps favorably alter the physical attributes of the fewer machines. Alternatively, if the capital units represent buildings, the use of fewer buildings may require more complex management problem solving with respect to the use of those buildings. Alternative solutions may be to remove rest areas, reduce the size of hallways, or numerous other possibilities for the more intensive use of the physical plant.

Consequently, the successful pursuit of this capital subsidization measure reduces bounded rationality because it increases the interval by

which the price of capital may increase without forcing management to generate alternative production paths. It insures that reduction in the firm's profitability will not be as great as would otherwise be the case. The final price of capital will be less than it would be in the absence of the special allowance. Additionally, the change will be a less disruptive force for management. An interval exists over which the price of capital may fluctuate before it exceeds the price faced by the firm prior to investment in political influence. If government were not incorporated in the firm's production function, management which does not possess perfect information would have to generate additional new pieces of information. Due to the bounded rationality problem the optimal amount may be less than that required to select what is considered to be the new optimal level of output and the accompanying least cost combination of inputs from the viewpoint of the economist. This is because, as noted by Williamson, economists frequently fail to take transactions costs into consideration. Economists assume that when faced with such a disruption, management will always pursue the profit maximizing solution as calculated in the absence of transactions costs. The argument presented here suggests that the profit maximizing solution when transactions costs are included is not always that which the economist predicts and deems to be the efficient solution. Firms whose managers exhibit satisfying behavior will enjoy an even greater reduction in the bounded rationality problem as a result of investment in political influence because when faced with a disruptive price change, satisfying managers may fail to undertake any action.

This conclusion appears to question our simple production theory models in which it is assumed that the firm possesses perfect information

regarding all possible combinations of variable inputs to produce all possible levels of output. Regarding this, Hayek has made the following illuminating observation:

There seems to be no possible doubt that these two concepts of "data" on the one hand, in the sense of the objective real facts, as the observing economist is supposed to know them, and on the other, in the subjective sense, as things known to the persons whose behavior we try to explain, are really fundamentally different and ought to be carefully distinguished.¹⁸

Managerial resources are one of the factors affected by the inclusion of government in the production function. To the degree that important advances in marketing, financing, strategic planning, etc. depend on actions by management, the diversion of management when confronted with suddenly rising resource costs, and the consequent influence on the above mentioned management functions can have serious implications for the performance of firms. Such "shocks" create new and taxing problems with which management must deal.¹⁹

Bounded rationality makes it impossible to identify all possible changes in the production process. Consequently, many possible superior production changes will not be discovered until a problem arises forcing management to adapt to these changes one by one and this is a costly process. The question is whether government can and will be used by the firm to alter its environment thereby lowering its internal costs. The

¹⁸Friedrich A. Hayek, Individualism and Economic Order (Chicago: University of Chicago Press, 1948), p. 39.

¹⁹Christopher T. Hill and James M. Utterback, eds., Technological Innovation for a Dynamic Economy (New York: Pergamon Press, 1979), p. 176.

subsequent question to be addressed is whether or not firm characteristics or market structure will impede or facilitate the tendency for firms to effectuate transactions costs reductions within the firm. Based upon the above discussion and our assumption, the effects of investment in political influence upon the production options of the small firm will be demonstrated.

Having purchased one unit of special depreciation allowances in capital, the firm now finds capital to be less costly than before. The elementary analysis of these effects is represented in Figure 4.1. The original output level is given by the isoquant labeled I_1 , indicating that the optimal employment level of capital and management is K_1 and M_1 , respectively. These quantities of the variable factors are the same as those derived earlier for the price taking firm employing zero units of political influence. After securing one unit of political influence, the cost of capital falls shifting the isocost line from W to X . The new output level B on isoquant I_2 is greater than the initial level of output. The new optimal levels of capital and management are K_2 and M_2 , respectively.

However, for the reasons discussed, political influence, an intermediate input, has also altered the productivity of management. The reduction in the price of capital has reduced the risk of disruption of the firm from a price change in the market for the firm's capital. The investment in political influence increases the marginal physical product of management relative to that of capital. This can then be viewed as a technological change affecting the firm's production function. Hicks defined technical change as capital using, neutral, or labor using,

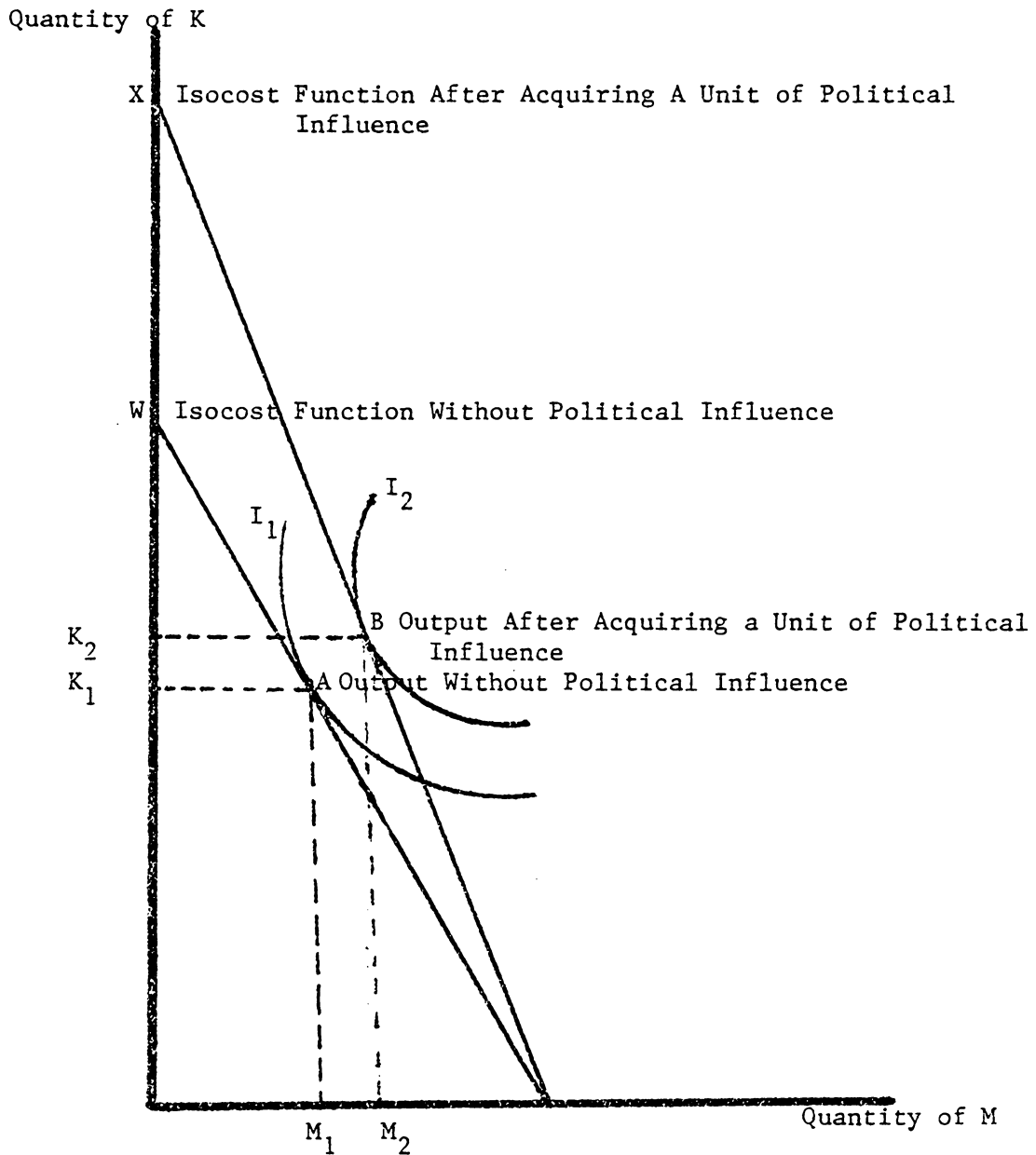


Figure 4.1

The Direct Effects of the Acquisition of a Cost-Reducing
Unit of Political Influence

depending upon whether the marginal rate of technical substitution of labor for capital falls, remains the same, or increases at the originally given capital-labor ratio.²⁰ Employing this definition, the change under study may then be termed a management using change.

Figure 4.2 illustrates this change. Originally, the optimum is represented by the point labeled A which is consistent with Point A in Figure 4.2 and implies an initial employment of management and capital of M_1 and K_1 , respectively. When the price of capital falls to the level represented by isocost curve X, output increases to I_2 and the employment of both inputs rises to M_2 and K_2 . Now, the marginal productivity of management rises relative to that for capital and the isoquant labeled X, I_5' will be produced and the quantity of capital and management to be employed is labeled K_3 and M_3 , respectively. Alternatively, the old level of output represented now by I_2' can be produced at a much lower level of cost indicated by the isocost function labeled Y.

It is likely that after investment in political influence it will be profitable for the firm to produce a larger level of output than it was producing prior to the investment. The optimal factor proportions are determined by the new output ray OT which is in turn determined by the tangencies of the relevant isocost functions with the new set of isoquants. The problem which remains is that of determining the optimal scale. With the relevant cost data for all levels of output the firm's cost function may be calculated and is labeled TC_2 , in Figure 4.3.

²⁰See J.R. Hicks, The Theory of Wages (New York: Macmillan, 1932), p. 117.

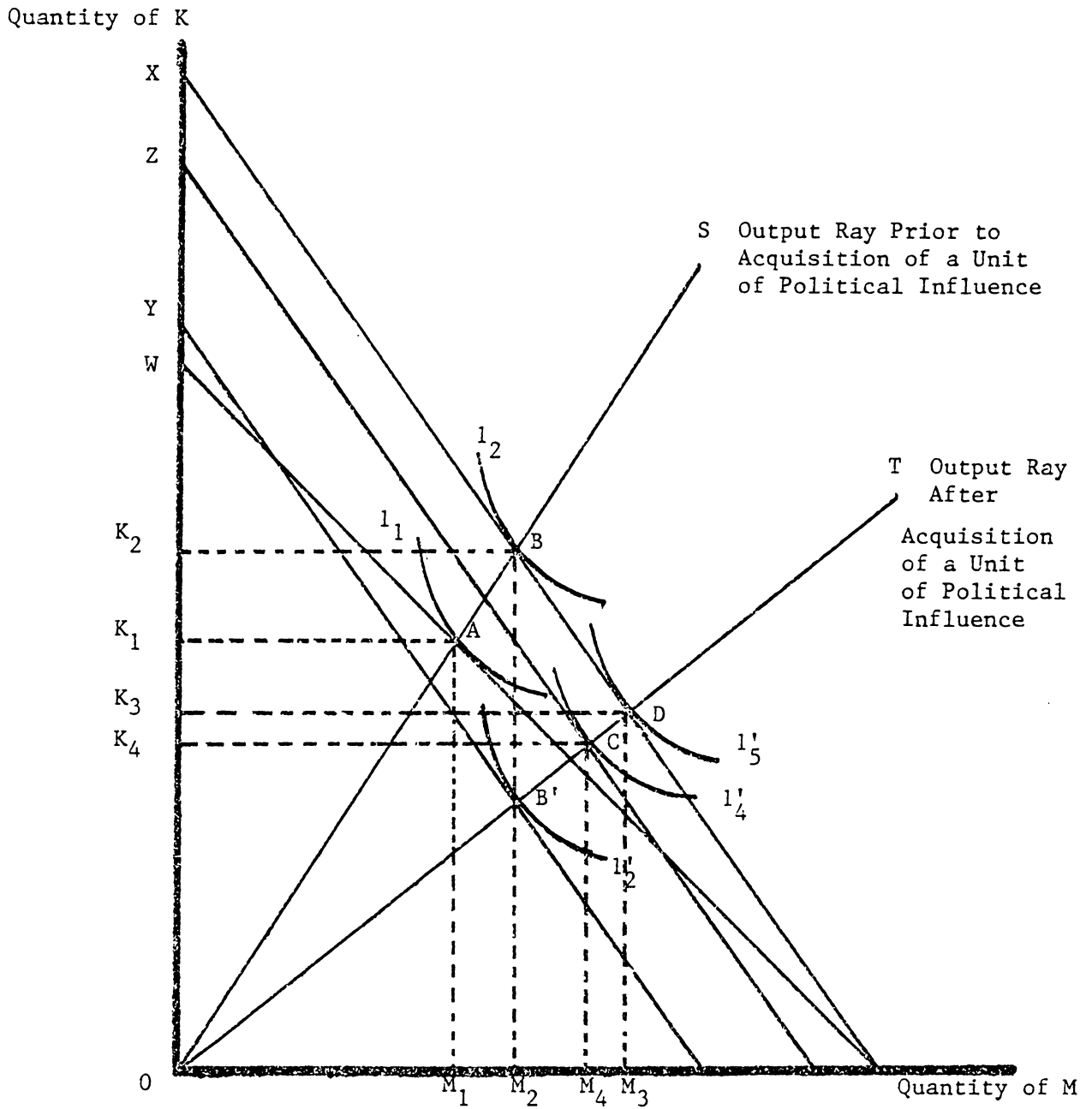


Figure 4.2

The Total Effects of the Acquisition of a Cost-Reducing Unit
Of Political Influence

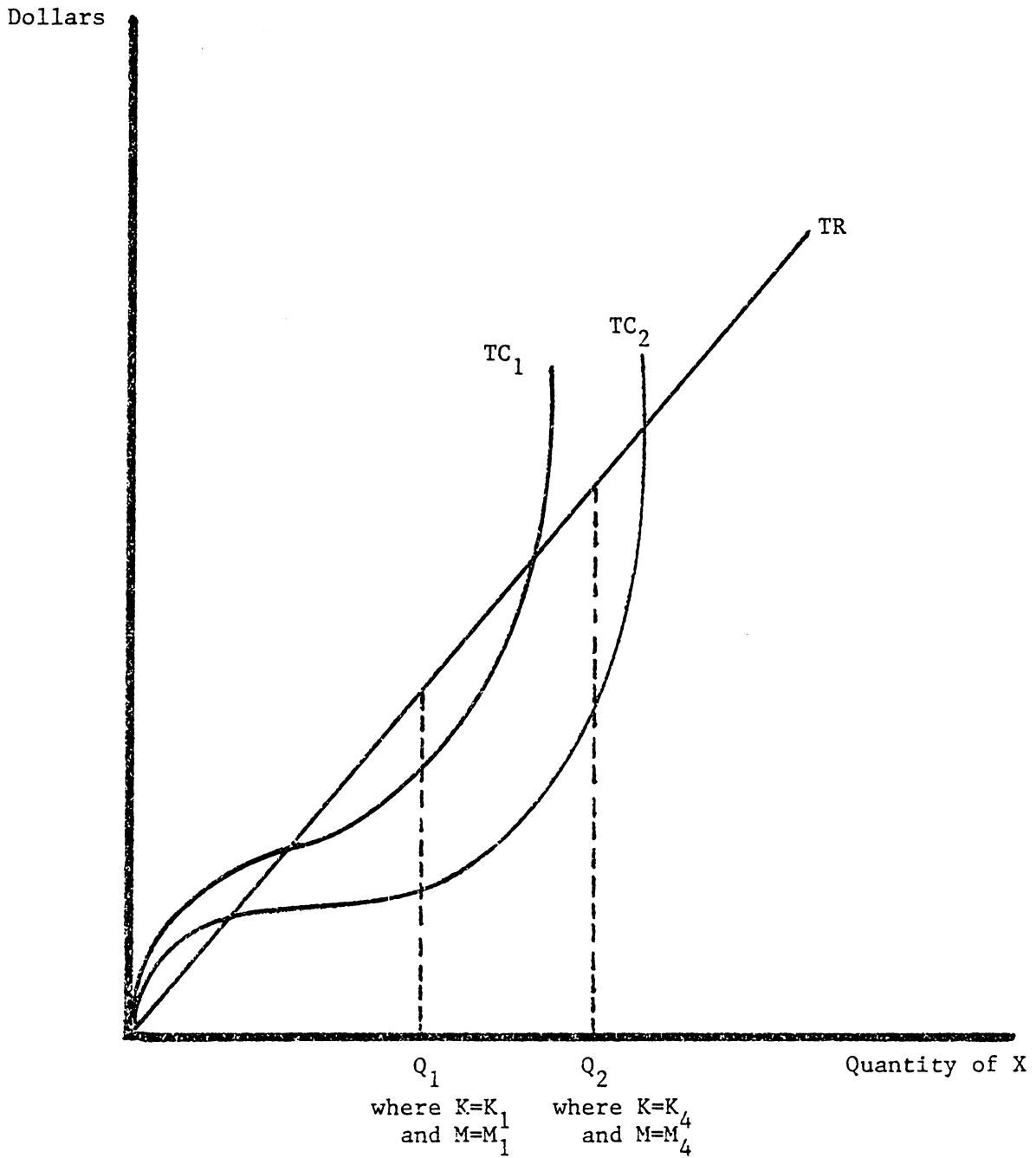


Figure 4.3

The Optimal Scale Before and After a Unit of Political
Influence is Acquired

Considering the price of the firm's output as given, its demand function relating P_x to the quantity sold, Q_x , will allow the derivation of a total revenue function labeled TR in the same diagram. It is therefore determined that after political influence is acquired, the optimal level of output is Q_2 in Figure 4.3. For comparison purposes, note that the initial total cost function before investment in political influence is labeled TC_1 and the optimal level of output is indicated by Q_1 .

Assume that Q_2 is the same level of output as that represented by the isoquant labeled I_4' in Figure 4.2. Then the optimal employment level of capital and management is represented by point C in Figure 4.2. These quantities are K_3 and M_4 , respectively.

The demand for a factor of production is a derived demand because factors are valued by their contribution to production and by the value placed on the firm's final product by its consumer as well as the prices of the other factors which are emphasized. Demand for the factor "political influence" is a derived demand. Its marginal productivity is determined by its contribution to the marginal productivity of other factors, its effects upon the costs of other factors, and the value of the goods produced by the firm employing political influence. Because political influence has been entered interactively in the production function, the quantities of capital and management are dependent upon the level of acquired political influence. Consequently, the marginal productivity of political influence incorporating all associated changes is:

$$\frac{dx}{di} = \frac{\partial x}{\partial k} \cdot \frac{dk}{di} + \frac{\partial x}{\partial m} \cdot \frac{dm}{di}.$$

Given the final product price the value of the marginal product of influence can be calculated to derive the firm's factor demand function.

The introduction of the political influence innovations affects the factor input ratios. Such a development leads the firm to pursue other strategies and objectives which in turn affect the rate of introduction of future innovations. In this case the relatively greater importance of management may imply a greater amount of influence to be pursued in the future.

It has been shown that government has become an important factor in the firm's production function because of its changing role which has provided private firms with a greater ability to accompany the existing incentive to alter their environment in a favorable manner. It has also been demonstrated that successful investment in political influence may serve to directly alter the cost and/or demand conditions facing the typical firm. Lastly, investment in political influence has the important indirect effect of raising the marginal productivity of management. From here we turn to investigate the large firm's demand for political influence.

IV. The Large Firm's Demand for Political Influence

In this section I will demonstrate that firm size will help to determine the profitability of investment in political influence. The assumption is made that the firm under study operates in a single firm industry identical in size to the price taker's industry. Size is measured by the initial output level. This large firm will then have power in the product market in which it operates. The markets for all of the factors

which it employs, except for political influence, are assumed to be competitive.

It is again assumed for simplicity, that the firm employs only the same two variable factors of production. The following is the firm's production function:

$$q_y = f(k, m).$$

Again all necessary first and second order marginal conditions are assumed to hold in this firm's product and factor markets. Let Y denote the output of this firm. Then allow M_2 to be equal to the quantity of the management factor which is consistent with the following equality:

$$\left(\frac{P_y}{\eta_d} + P_y \right) \frac{\partial y}{\partial m} = P_m,$$

where η_d represents the elasticity of demand since P_y is a declining function of the firm's output.

Now, let K_2 equal the quantity of capital that is consistent with:

$$\left(\frac{P_y}{\eta_d} + P_y \right) \frac{\partial y}{\partial k} = P_k.$$

If there are n identical firms in the competitive industry, then given the assumption of equal industry size:

$$\sum_{j=1}^n M_{1j} = M_2$$

and

$$\sum_{j=1}^n K_{1j} = K_2.$$

The inclusion of government in the production function requires it to be rewritten as

$$q_y = f(k, i_k, m, i_m).$$

The firm is considering investment in political influence for the same purpose as the representative price taking firm. The results will be similar, meaning that the cost of acquiring capital will be lower for this firm as a result of investment in political influence. Similarly, the productivity of management may be expected to rise as a result of this investment. However, we must pause to ask the question: will firm size impede or facilitate the tendency for firms to effectuate transaction cost reductions within the firm?

At first glance, it would appear that the monopoly firm could more effectively reduce internal transactions costs through the investment in political influence due to its relatively large size. Bounded rationality problems would seem to increase, perhaps even exponentially after some point with firm size. The problem of the inherent limits of human beings to solve complex problems exists in all firms, yet this is often complicated further in large firms due to communication difficulties. However, it cannot be concluded that large firms have more to gain by reducing their greater bounded rationality problems without first inquiring whether or not such bounds can, in fact, be expanded by investment in political influence.

The concept of durability, borrowed, in part, from Landes and Posner,²¹ can be used to address this question. Durability of political

²¹W.M. Landes and R.A. Posner, "The Independent Judiciary in an Interest Group Perspective," Journal of Law and Economics, XVII no. 3, (December, 1975), p. 875.

influence refers to the ability of special-interest legislation to withstand time. Thus a durable legislative "favor" will continue to provide benefits for its purchasers far into the future. A non-durable piece of legislation will be defined as that which can only be expected to provide benefits in the present period.

The durability of a legislative measure is determined, in part, by the extent of counter-influence. Counter-influence is partially the manifestation of visibility and is considered here to be the single most stifling factor in the market for political influence.

The small firm which purchases relatively durable legislation due to the lack of significant counter-influence finds that its internal decision making costs have been reduced. The large firm, however, does not enjoy the same magnitude of decision making cost reductions. Visibility which may manifest itself in future counter-influence causes the large firm's political favors to rapidly depreciate. Consequently, the productivity of political influence is not as great as that for the small firm. Non-durable political influence cannot be expected to reduce significantly the number and severity of the shocks with which management must deal, at least not for a substantial period of time. In Chapter 3, it was argued that firm visibility raised the cost of providing special interest legislation by alienating voters against the legislators providing such legislation contrary to the voters' perceived interests. In addition to raising the cost of supplying political influence, the presence of counter-influence will have serious implications for the durability of the legislation once it is produced.

The upshot for the large visible firm on matters involving their exclusive benefits is that counter-influence on the part of voters can be expected to affect both the cost of that influence as well as its value to the firm because of the accompanying reduction in durability.

For illustrative purposes a modified form of the Landes and Posner model will be employed.²² The study of the above mentioned authors is concerned with attempts on the part of the suppliers of special interest legislation to increase the durability of their product by placing impediments in the way of future legislatures pressured by counter-influence to alter the legislation. They then proceed to put forth those methods at the disposal of legislators to increase the durability of their product. However, it is the effects of durability upon the demand for influence which is of interest here.

Figure 4.4 demonstrates the situation facing both firms. D_1D is drawn on the assumption that the legislation purchased is not durable indicating that the benefits can be expected to accrue to firms only in the present period. This is the demand curve of large firms for non-durable influence. Now allow the gains from special interest legislation to extend indefinitely over many periods so that it may be described as durable. Then the relevant demand curve will be D_2D . This demand curve lies upward and to the right of the demand curve for non-durable legislation. It reflects the demand of small non-visible firms for the product which will produce benefits far into the future and reflects the discounted present

²²Ibid.

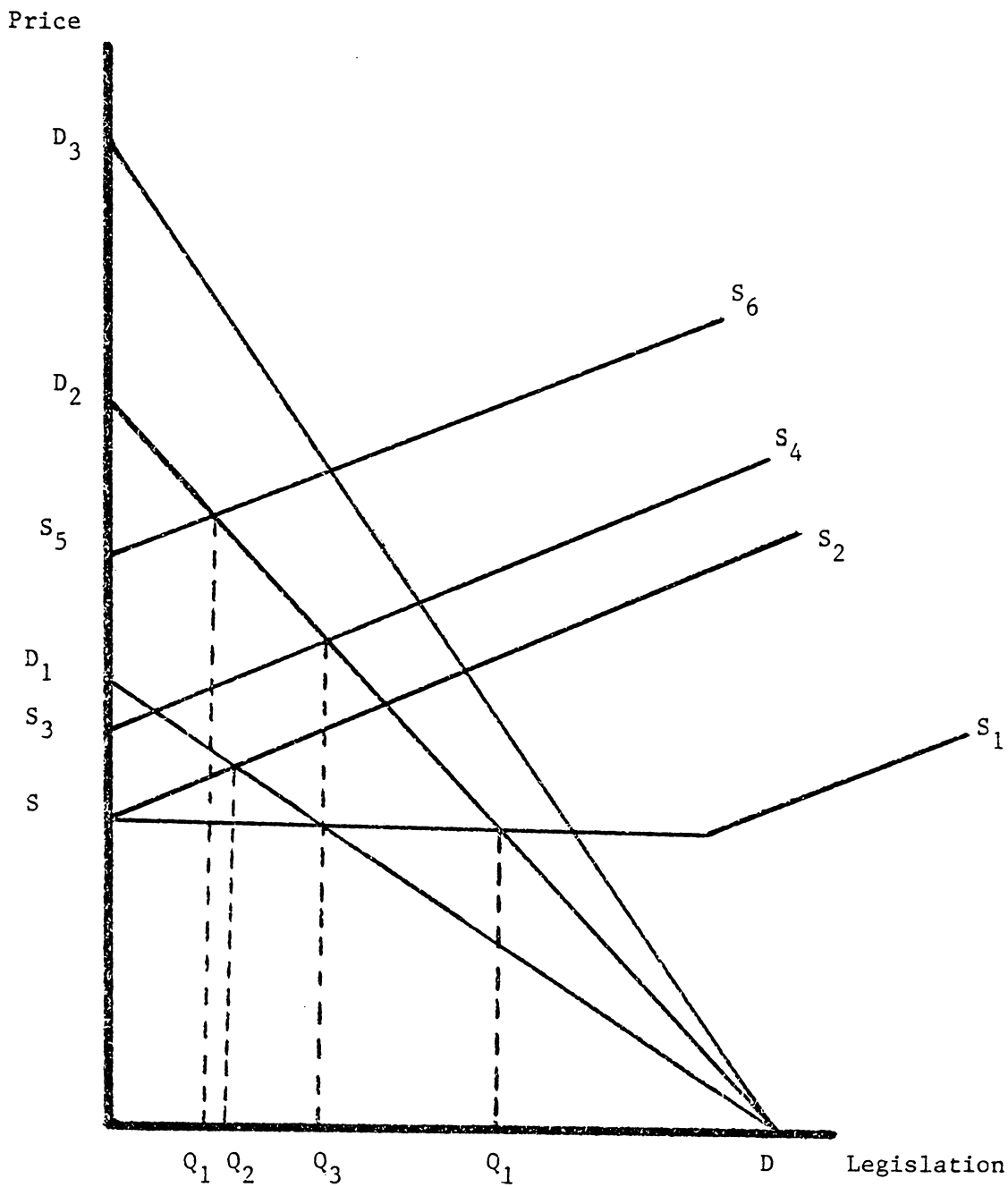


Figure 4.4*

The Effects of Durability Upon the Demand for Political Influence

* This diagram is adopted from the Landes and Posner paper.

value of those benefits. The lack of counter-influence makes this product a durable one for small firms implying greater productivity for the factor political influence. The supply curve facing the small firms is labeled SS_1 . The marginal cost of providing legislation to this group is constant over some range after which marginal cost rises. As more and more "favors" are provided to this industry, a point is eventually reached at which legislators find it increasingly costly to do so due to increasing voter opposition. The quantity of legislation purchased will be Q_1 . The supply curve facing the visible firms is SS_2 . The cost of providing the first unit of influence to these firms is greater because of the visibility factor and costs are continuously rising. The equilibrium quantity of legislation is Q_2 . Thus, an industry characterized by small firms will have a greater demand for political influence than a single firm industry and will face more favorable supply conditions. The industry composed of small firms will thus be the purchaser of a greater amount of political influence.

Now, assume that durability may be positively altered in any one of the numerous ways mentioned by Landes and Posner such as changing the majority voting process or establishing an independent judiciary, etc.²³ Assume that the implementation of any of these methods will increase durability by an equal amount. This is admittedly a simplifying assumption, but no generality should be lost given the thrust of this investigation. Consider the multi-firm and single firm industries discussed above. Suppose durability is increased to equal the durability

²³Ibid.

of legislation passed for an industry composed of small firms. This will shift the visible firms demand curve for special interest legislation upward and to the right. Given the assumptions of identical industry sizes, production inputs, etc., it would not be unreasonable to assume that the large firm's demand curve becomes D_2D . It is evident that even if costs remained unchanged, the new equilibrium quantity for the large firm will be greater than Q_2 , the former quantity, but less than Q_1 , the equilibrium quantity for the industry composed of small firms. However, there is little doubt that regardless of which method is chosen to increase legislative durability, the cost of supplying this superior product will increase to a level such as that represented by S_3S_4 . Here, the optimal quantity of political influence will be that denoted by Q_3 in the diagram. However, it is possible that costs of production may rise to the point at which the new optimal quantity is actually less than Q_2 , such as Q_4 given by the intersection of D_2D and S_5S_6 . In any case, the optimal quantity of legislation remains below what it would be for an industry characterized by small units.

After both industries purchase their optimal quantities of political influence, factor proportions and employment levels will no longer be the same for both industries. The output of the industry composed of small firms will be expanded by a greater amount, as will its employment of management and political influence. However, no precise statements can be made regarding the magnitude of these differences.

Can we conclude that large firms will always choose to purchase fewer units of political influence than groups of smaller, less visible firms

under the assumptions made here? The answer is negative. In the next section some conditions which promise to make investigation in political influence more profitable for the large firm will be discussed.

V. Primary Issues and the Large Firm's Demand for Political Influence

Business involvement in party, campaign lobbying and interest group activity is largely a manifestation of our electorate porocess, notes Charles Lindbloom.²⁴ These activities revolve around the everyday special interest political issues and are termed "secondary issues" by the author.²⁵ In this chapter, taxation was chosen as the inter-acting mode of business and government to derive the demand for political influence for two firms of different sizes. This type of political favor fits Lindbloom's definition of a secondary political issue. A distinction is made by Lindbloom between these and what he calls "primary issues."

Business influence on primary issues is almost certainly different from its influence on secondary, if only because business needs are alike on the former, yet often conflicting on the latter.²⁶

Such issues concern the basic fabric of the economy. Lindbloom proposes that the power of the business community to manipulate the

²⁴See Charles Lindbloom, "Commentary," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, p. 322; and Charles Lindbloom, Politics and Markets (New York: Basic Books, 1977).

²⁵Ibid.

²⁶Ibid., p. 322.

political sector arises from their mutual interest in these primary issues, rather than from the electoral activities of business designed to affect outcomes on secondary issues.²⁷ In terms of the interacting modes of business and government, Lindbloom's primary issues might coincide with political "favours" granted in the interest of stabilization.

The underlying basis for business political power on primary issues arises because of the necessity of successful business performance in order for the economy to achieve its stated macroeconomic policy goals such as high employment. It may therefore be necessary for the collective unit to provide an environment conducive to the nurturing of the business community. It is possible to conceive of numerous examples of governmental grants to business which also appear to be in the interest of the more general goal of providing an atmosphere conducive to the growth of the business and ultimately the household sectors. A study by M.J. Horwitz which was concerned primarily with the development of common as opposed to statute law is useful to illustrate this point because the indicated changes were supported by the legislature. The following passage from Horwitz's book describes a very important example of this phenomenon.

As it developed in the course of the 19th Century, one legal commentator later observed, the American attitude toward legal liability was based on the assumption that the "quiet citizen must keep out of the way of the exuberantly active one." Indeed, the law of negligence became a leading means by which

²⁷Ibid., p. 320.

the dynamic and growing forces in American society were able to challenge and eventually overwhelm the weak and relatively powerless segments of the American economy. After 1840 the principle that one could not be held liable for socially useful activity exercised with due care became a common placed American law. In the process, the conception of property gradually changed from the eighteenth century view that dominion over land above all conferred the power to prevent others from interfering with one's quiet enjoyment of property to the nineteenth century assumption that the essential attribute of property ownership was the power to develop one's property regardless of the injurious consequences to others.²⁸

While Horwitz is referring the changes in common law as opposed to changes initiated by the legislature, the above is nevertheless an example of a sweeping alteration in property rights which presumably evolved in the interest of a primary goal.

Lindbloom is critical of those studies which ignore the importance of primary issues in studying business political influence, claiming that such research looks at the wrong channels of causation and the wrong effect.²⁹ He further claims that on primary issues business seeks to prevent rather than induce political action. The author states that business electoral activity is aimed primarily at preventing successful counter-influence which may threaten their primary goals, as opposed to winning specific positive benefits.³⁰ It is possible to list many

²⁸M. Horwitz, The Transformation of American Law 1780-1869 (Cambridge: Harvard University Press, 1977), p. 99.

²⁹Charles Lindbloom, "Commentary," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July 1980, pp. 319-324.

³⁰Ibid., p. 322.

examples of electoral attempts by business to inhibit potentially detrimental changes such as opposition by the auto industry to automobile safety equipment regulations or emissions standards.³¹ However, it is also possible to compile a list of equal or greater size consisting of examples of members of the business community acting to acquire rules that promise to convey exclusive net benefits. While I must reject Lindbloom's conclusions that business generally takes a defensive stance in the political arena, I will borrow his distinction between primary and secondary political issues in what follows.

The question to be addressed is whether the profitability of investment in political influence can be expected to depend upon whether the firm is pursuing a primary or a secondary political issue. On this point, my first hypothesis is that large firms will find the pursuit of primary issues more profitable than the pursuit of secondary issues. Secondly, it will be in the interest of the large firm to convert secondary issues to primary issues in the view of voters, if possible.

The importance of the distinction between primary and secondary political issues lies in the expectation that visibility and the accompanying durability problems would be expected to differ for the large firm depending upon whether the issue being pursued is secondary or primary in nature. Consider the large firm that finds itself in the

³¹While passengers would seem to benefit from a reduction in automobile injuries and the general public may do likewise from a reduction in future pollution levels, it can also be argued that if all costs were considered, net benefits may not be positive. Thus, these issues could be considered to be primary in nature.

dilemma of being unable to purchase durable political influence.

Referring again to Figure 4.4, the firm faces the supply curve labeled SS_2 while DgD represents its demand for the non-durable legislation. This is the situation facing the firm in its pursuit of a secondary goal—one that will produce benefits exclusively for itself and is thus met with counter-influence. The optimal quantity, Q_2 is less than that for the industry characterized by small non-visible firms.

Now, compare this solution to the one that will obtain if the firm in question pursues a primary as opposed to a secondary goal. By definition, a primary issue is one which can be expected to have significant filter-down benefits from a wide and identifiable group of recipients. To the extent that the successful investment in a primary business issue promises a wide ranging group of individual and firm benefits, counter-influence will be reduced, perhaps to zero (this will be true only if visibility is assumed to be the sole source of counter-influence). This effectively eliminates the firm's visibility problems. Thus, durability would be expected to increase.

In terms of Figure 4.4 the elimination of counter-influence would shift the supply curve downward to SSg in the diagram. The firm's demand for this durable legislation would be expected to be greater. The demand curve would be expected to shift upward and to the right to D_2D for this type of legislation. The final result will be a greater equilibrium quantity of political influence for the large firm.

In conclusion, the relatively large single firm industry will devote a greater amount of resources to convert secondary issues to

primary ones and will also be expected to pursue a greater amount of political influence on "truly" primary as opposed to secondary matters. What can be said about the relative propensity of small and large firms to invest in securing primary goals? At this level of abstraction no conclusion can be drawn. There is no reason to assume that the industry characterized by small firms will differentiate between primary and secondary goals. However, when the public goods and associated free-rider problems are explored in a subsequent chapter, it will be argued that industries characterized by relatively small firms have an incentive to concentrate on investment in political influence for secondary purposes.

Returning to the large firm's investment in political influence, the above discussion indicates that the visible firm may benefit by altering the voter-citizen's perception of its pursuits. Whenever the costs of converting a secondary issue into a primary issue plus the direct costs of acquiring the "favor" are less than the firm's calculated benefits it will pay the firm to do so. It is, of course, not possible to change the inherent character of an issue, but it is possible to alter the voter-citizen's perception of its character.

Seithi³² recognized this possibility when he explored business advocacy advertising as a way of altering attitudes on items of importance to the firm. Likewise, Bartlett acknowledged this

³²S.P. Sethi, Advocacy Advertising and Large Corporations: Social Conflict, Big Business Image and Mass Media and Public Policy, (Englewood Cliffs, New Jersey: Prentice-Hall, 1977).

alternative to the firm, incorporating the subsidization of selective information in his model.³³ However, the provision of the necessary information to potential opponents can be quite costly. The purpose of such activity is aimed at convincing the voters that the legislation will produce general benefits which will accrue to them.

Alternatively, a firm may attempt to overcome its counter-influence problems by attempting to convince voter-citizens that almost anything which increases the firm's profits is likely to benefit them because a portion of the additional profits will be channeled back to the voter-citizens. Perhaps those who place a high value on public television's docu-dramas and classical music concerts feel that anything that is good for Exxon and AT&T is good for them. This is highly unlikely, but it illustrates the point.

VI. Some Additional Considerations

It is necessary to confront the possibility that differing financial capacities may be a factor determining the effective demand for political influence. The assertions regarding the positive association between firm size and political influence are often based upon the assumptions that wealth or income will determine an agent's ability to secure political influence³⁴ and that there is some

³³Randall Bartlett, Economic Foundations of Political Power (New York: The Free Press, 1973).

³⁴See Victor Goldberg, "Institutional Change and the Quasi-Invisible Hand," Journal of Law and Economics, 17, no. 2 (October, 1974), pp. 710-72; and John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence:

minimum threshold level of expenditures which is necessary before the first unit of political influence is derived.³⁵ It follows that larger firms are presumed to be better able to expend the necessary resources to acquire political influence. In other words, it is argued that there are "consumer" barriers to entry in the political influence market. Although firms are buyers rather than producers, the above argument is analogous to Joe S. Bain's classification of large capital requirements as a barrier to entry in the product market.³⁶

The theory developed here is not supportive of this argument. It is normally thought that firm size and profits and thus resource availability are positively correlated. Although the issue of the lumpiness of investment is not directly confronted, this model demonstrates that influence productivity as well as supply conditions are normally less favorable for the large visible unit. The analysis suggests that large visible firms purchase a lower quality product at a higher price in the legislative political influence market. Despite greater resource availability, the optimal quantity of political

Empirical Evidence from the Federal Corporation Income Tax Program" (Ph.D. dissertation, University of Wisconsin, 1972), p.198; and Randall Bartlett, "An Economic Theory of Political Behavior: Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July 1980, p. 292.

³⁵See Victor Goldberg, "Institutional Change and the Quasi-Invisible Hand," Journal of Law and Economics, 17, no. 2 (October, 1974), p. 470.

³⁶Joe S. Bain, Barriers to New Competition (Cambridge, Massachusetts: Harvard University Press, 1965).

influence is of a smaller magnitude for the large unit. In addition to differences in prices and productivity will determine the final distribution of political power across firms. The net effect must be determined empirically, of course. However, it is important to note that the determination of the validity of the firm size-political influence hypothesis requires that we go beyond the issue of resource availability. It is essential that the motivational characteristics influencing buyers and sellers be identified. Greater resource availability does not necessarily imply a positive relationship between firm size and political influence unless the small more numerous firms encounter organizational difficulties which make it impossible to effectuate their collective demand. This possibility is assumed away for the moment although it will be considered in the next chapter.

There is one argument that does lend support to the firm size-political influence hypothesis which has not been seriously considered in any of the studies in this area. The argument rests upon the proposed relationship between firm size and x-efficiency. A case can be made for the firm size-political influence hypothesis if it can be argued that large firm size is associated with a greater possibility of non-profit maximizing managerial behavior.

The concept of x-efficiency, a term first coined by Leibenstein, has given rise to skeptical debate regarding the predictive ability of classical economic models with respect to the behavior of the firm.³⁷

³⁷H. Leibenstein, "Allocative Efficiency vs. X-Efficiency," American Economic Review 56 (June, 1966), pp. 392-415.

The term x-inefficiency is analogous to the concept of technical inefficiency and describes a situation in which a firm's costs are not minimized.³⁸ X-inefficiency is presumed to arise because of motivational deficiencies.³⁹ While the traditional theory of the firm credits to the entrepreneur the ability to monitor employees, it is now largely accepted that x-inefficiency is possible due to the increasing separation of firm ownership from firm control.⁴⁰ The connotation is that separation is undesirable as it allows for inefficient behavior and implies that management may be in a position to maximize something other than profits. If this skepticism is warranted our economic models yield results with an unclear interpretation. The model in this chapter is based upon the profit maximization assumption. If this assumption is dropped, then the productivity of the political influence output relative to its price may not be the most important determinant of demand. If profits are not the sole objective it is implied that the manager may pursue the maximization of his own utility. The question is: might not this behavior manifest itself in a level of political activity which is beyond the profit maximizing level?

³⁸Douglas Needham, The Economics of Industrial Structure, Conduct and Performance (New York: St. Martin's Press, 1978), pp. 45-47.

³⁹H. Leibenstein, "Allocative Efficiency vs. X-Efficiency," American Economic Review 56 (June, 1966), pp. 392-415.

⁴⁰R.T. Masson, "Executive Motivation, Earnings and Consequent Equity Performance," Journal of Political Economy (November/December, 1971), p. 1279.

Oliver Williamson describes this situation as "expense preference behavior"⁴¹ indicating that the attitude of management is not natural with respect to costs. In the words of Williamson:

Directly or indirectly, certain classes of expenditures have positive values associated with them. In particular, staff expense, expenditures for emoluments and funds available for discretionary investment have value additional to that which derives from their productivity.⁴²

In this case, expense preference is either for political influence or some other emoluments that can be bought with the funds generated by the increase in political influence. It is not unlikely that some managers may perceive their activities in the political arena as a source of power and recognition. Likewise, it may be possible to convert profits into discretionary funds through political activity.

The motivations described above defy the profit maximization assumption. The explanatory power of the model developed in this chapter is partially dependent upon whether managerial expense preference is a consistent and increasing function of firm size. Certainly managers cannot ignore the desires of owners altogether. It has been argued that sales maximization (as opposed to profit maximization) will allow managers the continued luxury of discretionary behavior while simultaneously satisfying stockholders.⁴³ For instance,

⁴¹Oliver Williamson, "Managerial Discretion and Business Behavior," American Economic Review 53 (December, 1963), pp. 1032-1057.

⁴²*Ibid.*, p. 1035.

⁴³See William J. Baumol, Business Behavior, Value and Growth (New York: Harcourt, Brace and World, Inc., 1967). Chapter 6 and J.W.

Baumol argues that while the profit maximizing firm would produce more income for its stockholders, the sales maximization firm will end up the larger and there is no reason to believe that either occupies a shaky position in the industry.⁴⁴ Furthermore, J.W. McGuire, J.S. Chin, and A.O. Elbing have found that the salaries of executives are more closely related to firm sales as opposed to profits.⁴⁵

Inefficient managerial behavior described above is analogous to that of the Niskanen bureaucrat who attempts to maximize his budget so that he may maximize his non-pecuniary benefits.⁴⁶ It is maintained here that the behavior depicted by the Niskanen model may not be applied successfully to behavior in the private firm in the absence of the consent of the owners. A good deal of empirical evidence supports this contention. Crain, Deaton and Tollison find that tenure is very closely connected to profits.⁴⁷ If this is valid there exists no incentive to managers to increase sales beyond the profit maximizing level. Lewellen and Huntsman find that profits influence executive

McGuire, J.S. Chin and S.O. Elbing, "Executive Incomes, Sales, and Profits," American Economic Review (September, 1962), pp. 753-61.

⁴⁴See William J. Baumol, Business Behavior, Value and Growth (New York: Harcourt, Brace and World, Inc., 1967).

⁴⁵J.W. McGuire, J.S. Chin and S.O. Elbing, "Executive Incomes, Sales, and Profits," American Economic Review (September, 1962), pp. 753-61.

⁴⁶William Niskanen, Bureaucracy and Representative Government (Chicago: Aldine Press, 1971).

⁴⁷W. Mark Crain, T.H. Deaton and Robert Tollison, "On the Survival of Corporate Executives," Southern Economic Journal (January, 1977), pp. 1372-1375.

rewards while sales have little influence.⁴⁸ Masson finds that executives were not motivated financially to be sales maximizers.⁴⁹ In addition to their empirical basis, these results have intuitive appeal. Inefficient behavior changes the relative return on investments for individuals and reduces the desirability of maintaining the inefficient firm's stock in one's portfolio. Thus, owners of the non-profit maximizing or inefficient firm will transfer their shares. There may admittedly be a lag effect with respect to information accumulation, but the inefficient firm will not likely be able to compete successfully for capital in the long-run. Certainly the recent exhibition of large firm take-overs and the resultant replacement of managers is evidence of the sentence which is imposed upon those whom the market deems to be inefficient.⁵⁰ It is also interesting to note the effects of the increasing importance of mutual investment funds and banks as the holders of very large blocks of stock upon management behavior. Since these institutions act as investors for great numbers of individuals, the "free-rider" problem which has been said to characterize the behavior of stockholders is greatly reduced. Inefficient behavior which resulted in action upon the part of these

⁴⁸W.G. Lewellen and B. Huntsman, "Managerial Pay and Corporate Performance," American Economic Review (September, 19170); pp. 710-720.

⁴⁹R.T. Masson, "Executive Motivations, Earnings, and Consequent Equity Performance," Journal of Political Economy (November/December, 1971), pp. 1278-1291.

⁵⁰For an excellent discussion of the corporate control market see Henry G. Manne, "Mergers and the Market for Corporate Control," Journal of Political Economy 73, no. 2 (April, 1965), pp. 110-120.

investment institutions could have disastrous effects upon the company as a whole as well as the job security of the managers.⁵¹

Managers of regulated firms, however, are not necessarily under the same pressures to perform. Regulated firms are often granted a guaranteed rate of return. Increased costs due to a supernormal level of political activity may simply be incorporated into costs without sacrificing the firm's rate of return and therefore without fear of stockholder reaction to expense preference behavior. There is then no mechanism to discourage inefficient behavior. It is generally accepted that the incentives for cost-minimization disappear in the absence of competitive pressures. In this case large regulated firms will not necessarily have an advantage over their smaller counterparts. However, when regulation takes other forms which do not include price or entry restrictions, incentives do exist for efficient managerial decision making. In this case, managers of a regulated firm are constrained in the same way as those employed by unregulated firms in which the consideration of the goals of stockbrokers takes on importance. Managers will be forced to compare the benefits of acquiring political influence against the costs.

Recall the argument from Chapter 3 that political influence production costs in the legislature will tend to be lower for regulated firms regardless of size. The ability of the firm, the agency, and the

⁵¹See Samuel Richardson Reid for a discussion of the increasing importance of large institutional investors. Samuel Richardson Reid, The New Industrial Order: Concentration, Regulation and Public Policy (New York: McGraw-Hill Company, 1976), pp. 38-41.

legislature to influence the level of voter opposition through the strategic use of selective information forms the basis of this argument. Then the acquired political influence will be of superior durability. Large regulated firms will enjoy more favorable cost and productivity conditions than large unregulated firms. However, while it appears to be true that the legislative production costs are lower the regulatory status requires that the firm deal with an additional intermediary. The agency will likely become the vehicle through which legislature-firm deals are struck. Thus far, the bargaining process has been treated in a simplistic manner. It has been implied that the costs of acquiring political influence include only the direct costs of pecuniary and non-pecuniary remuneration that are equal to the receipts of the producing legislators. Actually, there will likely be additional expenses which might include the costs of lawyers lobbyists, etc. Consideration of the intermediary costs suggests that legislative receipts will not necessarily be equal to the expenses of the acquiring business unit for any given level of political influence. In this study it is implicitly assumed that the intermediate costs of acquiring political influence are identical for all agents or at least if these costs differ they do so in a random fashion. Regulation introduces the agency as an additional intermediary. The costs of dealing with the agency are incurred only by the regulated firm.

Regarding these costs, Richard Caves has noted that the fixed costs of acquiring and maintaining representation with the agency are quite high--perhaps too high to warrant intervention by a small

firm.⁵² He points out that the maze of rules that characterize a bureaucracy may be explained as an attempt to dissuade this sort of intervening behavior.⁵³ Thus, concludes Richard Caves large firms have an advantage when dealing with the agency.⁵⁴

Consider two regulated firms, one very small and one very large whose activities are monitored by the same agency. The argument by Noll and later by Caves suggests that these two firms may differ in the propensity to manipulate regulatory decision. Each appears to have an incentive to do so, but the magnitude of the benefits is different for each while this is not necessarily true of the costs. However, this analysis appears to ignore the possibility that the small and large firms who have a common interest will collectively seek favorable regulations. It is argued in Chapter 5 that the optimal level of political influence will be provided in most industries--collective provision should place all participants in close proximity to the agency as well as the legislature. What has been overlooked is the fact that small firms will have less demand for regulatory political influence, not because of high fixed costs as suggested above, but

⁵²Richard Caves, "Commentary" in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July 1980, pp. 315-316.

⁵³This point was first made by Roger Noll. See Roger Noll, "The Behavior of Regulatory Agencies," Review of Social Economy 29 (1971).

⁵⁴Richard Caves, "Commentary," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July 1980, p. 316.

because the monitoring task of the regulatory apparatus is centered on large firms.⁵⁵ Thus, the expected cost of non-compliance is far less for small firms. James Kimball has shown that smaller firms are more likely to violate regulations because of the low probability of being detected.⁵⁶ Small firms therefore, have less to gain from a change in regulatory rules. Since large firms have more to gain it would not be surprising to find that the Caves-Noll conclusion is correct: large firms will invest more in regulatory political influence than smaller regulated firms. Once a firm has made the required investment it need only consider the lower marginal costs of further acquisition of political influence. Since the agency is presumed to be the vehicle through which the firm acquires legislative political influence, regardless of its form, then firms who have already invested the resources required to influence agency decision making will have a greater incentive to invest in additional units of political influence.

In summary, firm size is positively related to the costs of acquiring influence and negatively related to the benefits. Thus, it is

⁵⁵James Kimball shows that enforcement as well as regulation itself, have discriminating impacts on different size firms. He demonstrates that with respect to environmental regulations, large corporations are most likely to be closely watched by the agency. Many small firms simply do not comply with regulations. Consequently compliance costs and firm size are positively correlated. See James Kimball, "The Economic Effect of Water Effluent Regulation and Enforcement Upon Firm Behavior" (Ph.D. dissertation, Virginia Polytechnic Institute and State University, 1979), Chapter 5. It is also possible that the benefits of being regulated to a large firm are more than proportional to its size because of the existence of a substantial amount of x-inefficiency behavior.

⁵⁶Ibid.

concluded that given the relatively greater benefits to be derived coupled with lower prices, small firms will seek a greater quantity of political influence unless organizational problems are overwhelming. In regulated industries the productivity of political influence is greater for large firms than would otherwise be the case. Yet, while legislative production costs are lower, total expenditures for a given level of influence will necessarily be higher than for the unregulated small firm and may be higher when compared to the costs faced by the unregulated large firm. However, marginal costs are the significant factor.

For the firm who has already invested to influence agency decision making-- one who has already incurred the high fixed costs--the relevant price to consider is the lower marginal cost of further influence. For those who have not, the relevant price is the cost of the first unit. Larger firms are presumed to be more likely to have invested the necessary resources to influence the bureaucrat so the costs of additional units of influence is presumed to be lower for them. When considering investment to acquire non-regulatory forms of political influence, the regulated firm who is already closely tied with the agency will have a cost advantage. It is therefore predicted that regulated firm size and the demand for political influence are positively related whether the investment is aimed at garnering favorable regulations or reducing the tax burden.

Welch has pointed out that the productivity of political influence increases with increases in regulation.⁵⁷ The regulatory status raises the productivity of the political influence input. Productivity of political influence may even be greater than for unregulated firms of any size. However, it is important to note that many of the pursuits of regulated firms will be geared toward regulatory areas. The substitutability of regulation for other forms of political influence suggest that it would not be surprising to find that the large regulated firm neglected influence pursuits in other areas.

Before proceeding, it will be useful to note that any factor which can be shown to have a dampening effect upon the level of counter-influence arising because of the visibility factor will alter the implications of the model. In terms of the analysis presented in Chapter 3, industry size and the degree of unionization or collective bargaining coverage may be two such factors. It was demonstrated that each may be expected to reduce voter opposition which would be expected to arise from the provision of favors for visible firms. It then follows that the resulting legislation will be more durable. Therefore, demand will be greater when increasing firm size is accompanied by greater industry size and/or unionization.

⁵⁷William P. Welch, "The Economics of Campaign Funds," Public Choice XX (Winter, 1964), pp. 83-97.

CHAPTER 5

THE INDUSTRY DEMAND FOR POLITICAL INFLUENCE

I. Introduction

The determination of the optimal level of political influence for different size firms was described as a major purpose of this dissertation. That was the task of Chapter 4. The exploration of the decision making process of the individual firm regarding the acquisition of political favors exclusively for its own benefit allowed the isolation of those factors which determine the benefits accruing to firms of different sizes from investment in a given quantity of governmental influence. The analysis of the last chapter may be extended to cover the case of collective governmental influence provision. A large firm cannot be expected to exert twice as much political power as two small firms providing political influence collectively in the case where the number of units in the industry is sufficiently small so that the "free-rider" problem would not be seriously overwhelming.

However, the industry demand for political influence cannot be studied without addressing the "free-rider" problem which has been assumed to be non-existent up to this point. Now is it necessary to extend the analysis to cover the benefits accruing to an entire industry or sub-industry in order to determine more precisely under what conditions the costly process of interest group formation will overwhelm the industry demand for political influence.

In Section II, I will present a discussion of some of the public goods aspects of political influence. In Section III, a model will be developed which is an extension of the model presented in Chapter 4. Here I will attempt to isolate those factors which determine the propensity of three different industries to pursue collective political benefits whose structures could be very loosely described as competitive, oligopolistic and monopolistic, respectively, as measured only by the number of firms composing the industries. The last section will discuss some implications of the model along with some conclusions. It will be argued that the "free-rider" effect will not normally be an overwhelming influence so that industries composed of medium size units will purchase a greater quantity of collective political influence than the single unit industry.

II. Political Influence as a Public Good

Chapter 4 was concerned with the rather unique case of political influence in which the legislation produced benefits that were confined to the firm making the investment. Thus, the benefits derived from political influence could be placed at the private end of the spectrum of goods. The lack of commonality in consumption assures that the decision making costs involved in the acquisition of a good are at a minimum. However, quite often the technological aspects of specific political favors is such that the benefits will accrue to more than one firm. The modes of business-government interaction will often convey benefits to an entire industry as opposed to a single firm. For instance, tariffs are most frequently aimed at a specific industry or

subset of industries. A tariff on imported shoes will provide benefits to all domestic shoe manufactures. Similarly, favorable regulations and special tax considerations will frequently affect a wide range of firms. In the extreme, more favorable depreciation allowances on all newly acquire capital, generally defined, may favorably affect all firms. This suggests that the political influence input is often public rather than private in nature. At issue is the fact that the decision to invest in political influence becomes burdened by new complications. Now, in the words of Davis and Whinston "...the act of paying the price is somehow separated from the act of consumption."¹ It will be helpful in the analysis that follows to discuss the public goods aspects of political influence in more detail.

Mancur Olson in his book, The Logic of Collective Action,² was concerned with the theory of group formation for the purpose of securing a collective good. Although his study did not directly address the firm size-political influence hypothesis, recognition must be given to him for explicitly noting the publicness characteristics of political favors. Olson likens a private organization to the State in that the purpose of each is the provision of collective goods to the members.³ Much of the research by political scientists and sociologists

¹Otto A. Davis and Andrew Whinston, "Externalities, Welfare, and the Theory of Games," Journal of Political Economy 70 (1962), pp. 241-262.

²Mancur Olson, The Logic of Collective Action (Cambridge, Massachusetts: Harvard University Press, 1965). Hereafter this work will be cited as The Logic of Collective Action.

³Ibid.

concerning group theory and group behavior recognizes that commonality of interests is the quintessential reason for the existence of organizations. Yet, it is often assumed that the goals of the organization will be fulfilled.⁴ Olson filled the gap in group theory by questioning the reality of this assumption. In comparing the State with other organizations, Olson points out that coercive tax arrangements rather than voluntary contributions form the basis for State financial support because of the feasibility of the former method. Individuals will likely perceive that their contributions will be such a small proportion of the total that the withholding of that contribution will not reduce the quantity of the public good provided by the State. This "free-rider" problem will exist in other organizations as well.⁵ The difference between the State and private organizations is that coercive enforcement arrangements are limited in the latter. An industry organized for the purpose of securing tariff protection may be unsuccessful, particularly if it is characterized by large numbers due to problems of organization.⁶ The simple extension of Olson's theory to business political influence groups has led some to conclude that industries characterized by large firms which are therefore presumed to be highly concentrated can be expected to be more successful

⁴See Mancur Olson, The Logic of Collective Action for an indepth discussion of the failure of the literature to adequately question group performance.

⁵Ibid., pp. 15-16.

⁶Olson's "free-rider" problem will be discussed at length in what follows.

in political influence accumulation than industry groups which are unconcentrated and composed of a large number of small firms.⁷

An evaluation of this assumption will be postponed until later. However, taking for granted that it is correct, the magnitude of the importance of the "free-rider" phenomenon would appear to depend upon the extent to which the business favor displayed public characteristics.

Consider again the case of a special depreciation allowance on capital that is specific to an industry. Once this special tax concession is secured, all producers in the favored industry who employ the type of capital affected will benefit from it. It is not possible to exclude non-paying industry members from the benefits of this investment in political influence. Given that the incentive to pursue political influence is dependent upon whether or not the distribution of the benefits can be controlled by the investor, a great amount of investment may not be observed.

Suppose the industry in question is steel and the capital to be treated in the special manner is blast furnances which are used in steel production. Further assume that following successful investment, a substantial increase in the demand for steel occurs which results in an influx of new firms to the industry. Presumably, each new firm will invest in the specially treated capital. No exclusion is possible. The entering firms as well as existing firms who failed to contribute cannot

⁷For instance, see John J. Siegfried, "The Relationship Between Economic Structure and The Effect of Political Influence: Empirical Evidence From the Federal Corporation Income Tax," (Ph.D dissertation, University of Wisconsin, 1973).

be prevented from benefiting from the previously secured tax concession. Additionally, they may do so without any further production of the political favor. Thus, the business political good may also display jointness-efficiency in production characteristics.⁸ However, it is possible to conceive of a similar tax concession which is limited to steel firms whose property is bordered by a National Seashore. This favor would, in fact, benefit only Bethlehem Steel and the extension of benefits to other firms would necessitate further production of political influence. Thus, with respect to jointness-efficiency in production, political favors may be found to be anywhere on the goods spectrum.

Consider the related characteristics of non-rejectability,⁹ and indivisibility in consumption. In the case of the favor described above, it is conceivable, but not likely that a firm qualifying for the special depreciation allowance would instruct the tax accountant not to take advantage of it. However, it may be virtually impossible for a firm to reject other types of political favors. Consider favorable regulatory measures that dampen competition among existing firms and bar entry of potential competitors by bureau directions. These measures

⁸The concepts of non-excludability and jointness-efficiency as used here are taken from John Head's definitions in "Public Goods and Public Policy," Public Finance, XVII, no. 3 (1962), pp. 197-219.

⁹Non-rejectability and indivisibility in consumption are defined in the Samuelsonian tradition. See Paul A. Samuelson, "The Pure Theory of Public Expenditure," Review of Economics and Statistics, XXVI (November, 1954), pp. 387-390 and "Diagrammatic Expositions of a Theory of Public Expenditures," Review of Economics and Statistics, XXXVII (November, 1955), pp. 350-356.

cannot be rejected by industry members unless exit from the industry is considered to be an option.

Consumption of a favor by any single firm will not necessarily involve equal consumption by everyone else. After the tax concession is secured, the benefits accruing to the industry members will not necessarily be enjoyed equally. Rather in many cases the benefits can be expected to be distributed in proportion to the market shares of the member firms. Suppose the measure effectively reduces the cost of acquiring new capital by ten percent. Assuming that K is not an inferior factor this will favorably alter the long-run average and marginal cost conditions facing each firm in the industry. Assuming that the legislation will have not direct or indirect effect upon the market shares held by the member firms, those firms can be expected to receive benefits in proportion to their market shares. Each firm will replace or add to its existing stock of capital by an amount which is in proportion to its share of the market and thus, the benefits it receives from the tax favor as a percentage of total industry benefits will also be proportional to its share of the market. Consequently, if the leading firm in the industry holds twenty percent of the market, following a doubling of industry demand the firm would be expected to double its existing stock of capital. But, the firm's addition to capital would constitute only twenty percent of the total industry's purchase of capital. Also, the ten percent reduction in the cost of that capital would constitute exactly twenty percent of the total capital cost reductions experienced by the industry. If we consider the extreme case of an infinitely large number of firms of equal size,

then equal consumption of the political favor by all firms in the industry would describe the situation.

In this way political influence differs from national defense, the classic example of a public good. If twenty-five percent of the federal budget is allocated to national defense, every individual will enjoy or despise exactly the total amount of national defense provided. The consumption of national defense by a newcomer will in no way reduce the amount of national defense consumed by others. Thus, the upper limit on the amount of national defense that can be consumed by one person is equal to the amount that can be consumed by an infinite number of other persons and is equal to the amount produced. The upper limit is determined solely by the legislative measure. This is not true for most "political goods" which convey benefits collectively to an industry. In the case of a ten percent reduction in the cost of capital, it may at first appear that the provisions of the legislative measure set an upper limit on benefits. However, the absolute value of the total benefits to be enjoyed will also depend upon the number of units of capital to be employed by the industry which in turn is positively associated with the level of demand for the industry's product and production technology. The upper limit on the value of the benefits to be enjoyed by a member firm will be determined not only by the factors mentioned above, but also by the number of units of capital to be employed by the firm which in turn, is a function of the firm's market share of the total product demand. In this discussion, the positive effects upon bounded rationality have been ignored, but the inclusion of these effects would in no way alter the argument. If the demand for the final product

increases, the value of the benefits from a specific legislative measure will rise. Given any specific legislative measure and demand for final product only a change in the market share held by a firm will alter the benefits it receives from that favor. Consequently, with no change in the level of demand, an increase in the consumption of benefits from a political favor by one firm will reduce the value of benefits received by at least one other firm in the industry.

It is evident that the specific of the legislation as well as the number of firms in the final product market place will influence the degree of publicness of special legislation. A legislative measure may be designed to alter the environment of a single firm or at the other extreme, may do so for all business organizations. With respect to the final product marketplace, political influence involves some limited degree of publicness where the number of firms affected is greater than a single firm. The problems of organizing by firms for the purpose of securing political influence may be viewed from a public goods perspective. Recognition of the publicness characteristics of political influence is useful for the derivation of the industry demand for political influence because the level of that demand will depend at least partially upon these publicness characteristics and the accompanying organizational problems which many have suggested may overwhelm the individual incentives to acquire political influence.

III. Firm Size and the Collective Demand for Political Influence

In this section the model developed in Chapter 4 will be expanded to include the industry demand for collective special interest

legislation by business in light of the public goods characteristics of the investment. It will be argued that while the "free-rider" problems may impose serious organizational difficulties upon industries characterized by a very large number of extremely small units, industries composed of "medium" size units will be likely to provide nearly optimal quantity of political influence for their members. The "truly" optimal quantity will be provided in the extreme case of an industry made up of only one firm. However, the optimal level of political influence is of a smaller magnitude for the industry composed of one firm.

To begin it is necessary to state that the following analysis will be confined to secondary political goals. To facilitate the analysis, cost and benefit functions will be developed for three different industries and their representative firm members. The industries will differ in the number and size distribution of the firms which compose them. First, the optimal quantity of political influence for an industry characterized by a very large number of small firms will be derived along with that for the representative firm member. Next, the situation facing an industry with fewer "medium" size units will be developed. This industry is assumed to be characterized by a relatively small number of firms. The firm count is small in the sense that organization and coordination of effort is possible, but not necessarily costless. Lastly, the extreme situation facing a single firm industry will be developed. It will be assumed that the sole purpose of investment in political influence is to increase profitability from the

standpoint of the individual firm. Thus, the gains are economic in nature. As noted earlier, managerial expense preference behavior may cause the actual level of investment in political influence to deviate from the optimal level for a firm. It would, therefore, have the same effect upon the level of industry investment in political influence. However, no allowance will be made for this type of behavior in the model.

Consider industry A which is characterized by a very large number of extremely small firms of equal or at least approximately equal size. The cost function for the representative firm in this industry can be defined as follows:

$$C_A = f(P_W Q_W, P_T Q_T, P_E Q_E),$$

where Q_W refers to the wealth resources of the firm, Q_T refers to time resources and Q_E refers to effort spent and measures the intensity of work while employing the time resources to secure political influence. P_W , P_T , and P_E refer to the value of wealth, time and effort, respectively. These prices are, of course, measured in terms of subjective opportunity costs and may differ among firms. To avoid complications, however, it will be assumed that the prices are the same for all firms. The quantities of the wealth, time, and effort resources required to secure political influence are, in turn, determined by other factors. Specifically,

$$Q_{PI} = f(W, T, E, CI, N).$$

Q_{PI} refers to the number of units of political influence or, alternatively, the rate at which political influence is acquired. CI measures the degree of counter-influence and N measures the number of firms in the industry. Each of these variables and the manner in which they affect the cost function will be discussed in turn.

In the usual manner, total cost will rise as the number of units of political influence purchases increases. There is no reason to believe that the technological aspects of the production of political influence is any different than the production of any other good. Additional production will involve additional costs and, therefore, total costs to the buyer will rise as the number of units purchased increases.

Counter-influence measures the level of opposition.¹⁰ As previously indicated, it may take an active or passive form. Information determines the overall level of counter-influence and information, in turn is determined by the redistribution aspects of a specific legislative matter as well as the visibility of the firm or industry seeking the special interest legislation. The latter is assumed to be determined by the economic size of the beneficiaries.¹¹ Counter-influence raises the costs of acquiring political influence. It will be assumed that the redistributive aspects of the legislation sought in the political marketplace are given and will be equal

¹⁰For a more detailed discussion of counter-influence refer to Chapter 3.

¹¹It was noted previously that other factors may contribute to the degree of counter-influence. However, these items are not important to the topic under study.

regardless of which industry or firm the legislation is aimed to aid for any given quantity of political influence. Additionally, over time the relevant range it is assumed that the redistribution is not an independent source of counter-activity. Consequently, the level of counter-influence faced by different firms in different industries will depend solely upon the visibility of the relevant business units.

N defines the number of firms who are to participate in both the benefits and costs of securing political influence. It will be assumed that this represents the number of firms in the industry. Obviously, the greater is the number of firms sharing in the investment costs, the lower will be the cost to any single firm. Thus, the value of N will influence the cost of political influence to the firm. Of course, costs will not necessarily be shared equally by all firms.¹² The exact cost sharing arrangement will be partially determined exogenously by the structure of the industry. The cost to any group of firms seeking political influence will consist of three types: direct costs, organizational costs and decision making costs. The direct costs include such items as the physical building housing those charged with coordinating the effort, lobbyists, printing, copying costs as well as the value of pecuniary and non-pecuniary payments to legislators. Organizational costs include those ordinarily incurred to bring together the members of the group and coordinate the effort not including the costs of reaching agreements regarding the provision of collective

¹²Costs, of course, must approximate benefits in the absence of extreme coercion.

goods. Decision making costs are those incurred to bring about agreement regarding the quantity of political influence to be purchased and the distribution of total costs among members as well as the costs of enforcing that agreement.

The relationship between costs and the number of firms in a group is demonstrated in Figure 5.1. The function labeled D depicts the direct costs to the individual firm as they are spread over increasing numbers of firms under the assumptions of symmetrical cost sharing. The organizational cost curve, labeled O, is also a decreasing function of N. this is because organizational costs do not include enforcement costs which may have to be incurred in order to secure payment from the members if the group is to succeed. Total organizational costs will rise as the group size increases. However, as Olson noted, there may be economies of scale in organization and therefore, the costs per person would fall as membership rises.¹³ The G function represents decision making costs to the member firm. It is assumed that there are no economies of scale and thus, for the group as a whole, these costs will rise and beyond some point they will do so at an increasing rate. The sum of organization and decision making costs is represented by the curve labeled G+O. By vertically summing all of the separate functions G+O+D is obtained. This function represents the total costs, organizational, decision making and direct resource costs for the individual firm of a given amount of political influence as the number

¹³Mancur Olson, The Logic of Collective Action, pp. 46-47.

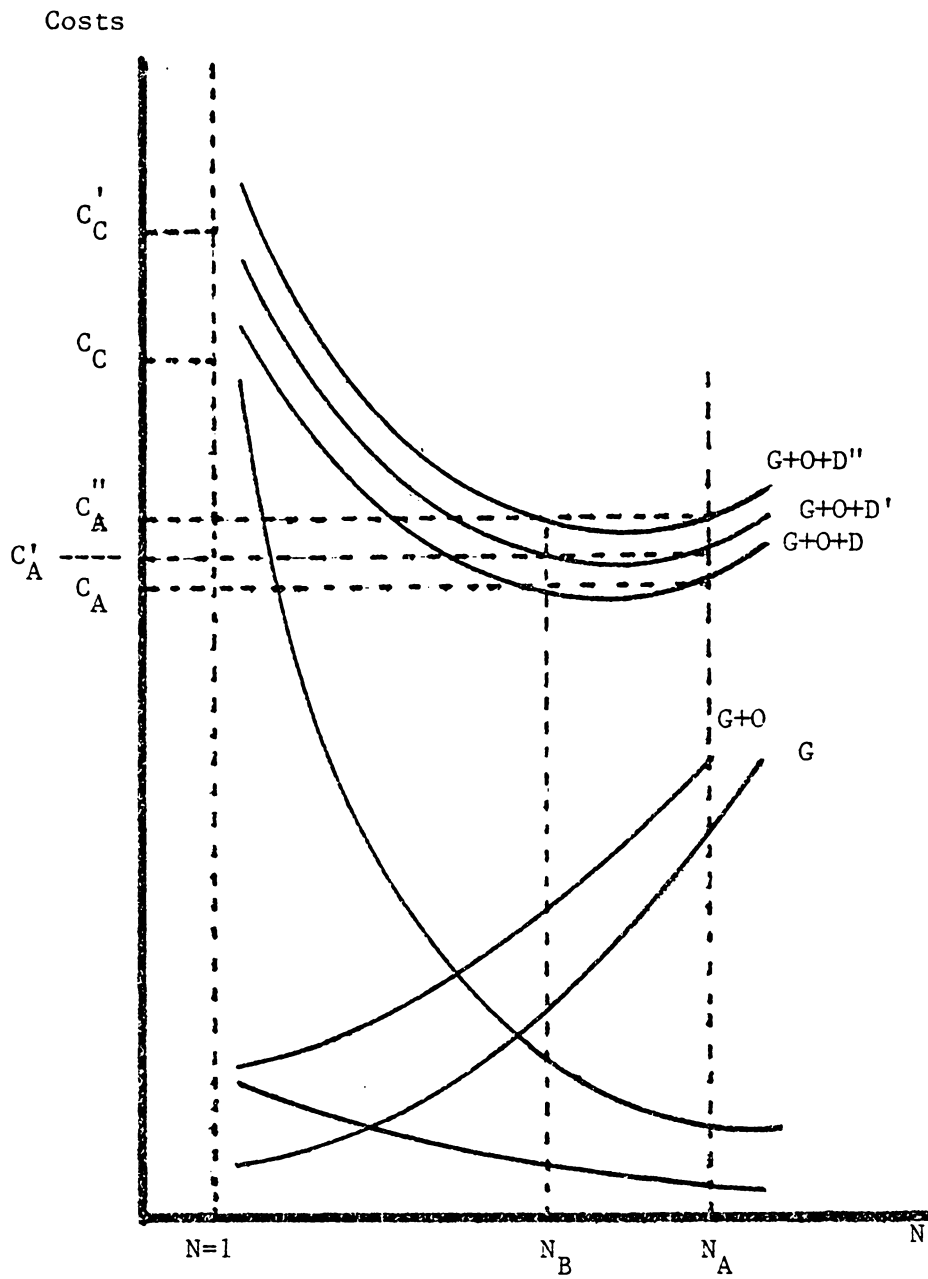


Figure 5.1

Costs Per Member as a Function of Group Size

of firms in the group varies. The minimization of costs is not relevant since N is determined exogenously. Of importance is the fact that the number of firms in the group will affect the cost of securing political influence for the individual firm in two ways. Beyond some point the rising decision making costs will overwhelm the cost reducing effects of the increasing membership.

It is now necessary to derive the firm's benefit function. In so doing, it will be helpful to rely upon the model developed in Chapter 4. Recall that the example which was employed involved a special depreciation allowance on capital that was specific to the firm. Now, allow this capital to be specific to the industry. Again, assume the firm employs only two variable inputs, namely capital and managerial resources. The firm secured an effective reduction in the price of capital and an increase in the productivity of management from the successful pursuit of political influence. Thus, the benefits to be received are economic in nature. We can then explicitly state that the firm's benefits are a function of the increase in the firm's profits which are attributable to its investment in political influence. Symbolically,

$$B = f(\Delta\pi_1),$$

where B refers to the firm's total benefits and $\Delta\pi_1$ measures the total additional profits secured from the political marketplace. The increase in profits, is determined by the extent to which the price of capital which it employs is altered and the resulting productivity increase in

its management input. These changes will alter the production situation facing the firm and ultimately the optimal combination of inputs and the optimal output level. The firm will experience an increase in profits attributable to the total productivity of political influence.

The rate at which political influence is acquired will surely affect the total productivity of political influence and thus the profit level attributable to the investment. The greater the number of units of political favors, the greater will be the total level of benefits to both the firm and the industry. However, political influence is an input in the production process which suggests that at least beyond some range the marginal productivity of political influence will fall. Alternatively viewed, in the relevant range the benefits from additional units of political influence will increase, but at a decreasing rate until some maximum level of total benefits is reached.

Counter-influence will affect the productivity of political favors for both the firm and the industry. This occurs because opposition is presumed to affect the durability of a legislative measure. Earlier it was argued that a non-durable legislative favor was not effective at reducing decision making uncertainties. Thus, internal problems involving bounded rationality were not significantly alleviated. However, it is presumed that in the absence of counter-influence, durability problems are non-existent. Recipients of a durable legislative measure may interpret it as a permanent change in their environment. Consequently, the bounded rationality problem promises

to be greatly reduced. Thus, such a firm or group of firms will experience substantial increases in the productivity of management. It follows that the benefits accruing to those firms for any given quantity of political influence will be greater than for firms with legislative durability problems.

The size of the industry seeking the special interest legislation places an upper limit on the benefits derived by that industry. The savings enjoyed from a special capital depreciation allowance are limited, not only by the number of units of influence purchased, but also by the number of units of capital and management employed by the industry which in turn is dependent upon production technology and the level of industry demand. Additionally, industry size indirectly influences the benefits enjoyed by member firms. Allow Z to represent the value of the industry's output and z , the value of the output of a single firm. Then:

$$\frac{z}{Z} = MS,$$

where MS refers to the firm's marketshare. While the number of firms sharing in the benefits of a given quantity of a collective political good may help to determine the individual firm's benefits, it will not do so independently of the marketshare of the firm. In fact, for an industry in which the number of firms is greater than one, the only conclusion that can be reached with certainty is that no single firm in the industry will enjoy one hundred percent of the benefits because its marketshare must be less than one hundred percent. However, given a

numerical value for N , no exact conclusions can be drawn regarding the distribution of the benefits. Instead, that distribution will depend directly upon the marketshares of the member firms.¹⁴

In summary, the total benefits conferred upon an industry are determined by the number of units of favors purchased and upon the level of counter-influence which will determine the durability of the legislative measure and thus, the productivity of political influence for the industry and its members. Additionally, the demand conditions facing the industry are a factor. However, while the benefits enjoyed by the member firm are determined in a similar manner by Q and CI , and the size of the industry puts upper bounds on those benefits, the amount received will finally depend upon the size of that individual member.

Return to the specifics of the situation facing the members of industry A. The total cost function can be derived by referring again to Figure 5.1. The function labeled $G+I+D$ represents the total cost to a firm from investment in a given quantity of political influence drawn on the assumption of a symmetrical cost sharing arrangement. This assumption will be temporarily maintained while discussing industry A. This does not appear to be an unreasonable assumption under the circumstances outlined since if the membership could be coerced to make payments, it would not be unlikely that agreement could be reached by

¹⁴Olson pointed out the relationship between the size of the member and the level of benefits for the individual group member. He notes that the percentage of the total benefits accruing to any individual member will be influenced by both the number of group members and the size of the individual. See The Logic of Collective Action, p. 23.

which all would assume an equal share of the costs. This is so for two reasons. First, benefits are enjoyed equally by all the members of industry A. Consequently, if one firm can derive positive net benefits from the investment, then all firms will find the purchase equally profitable. Secondly, the structure of industry A assures identical economic size among the members. Since resource availability is often thought to form a basis for the distribution of cost shares in the provision of a collective good, complications arising from unequal economic size can be avoided.¹⁵

Returning again to Figure 5.1, a series of cost function may be drawn each representing different quantities of the political favor such as $G+O+D'$ and $G+K+D''$. Then, for any given number of firms in the industry group there is an associated level of costs. Note that as the number of units of influence increases the curve labeled D shifts upward in a parallel fashion by an equal amount for each additional unit of political influence purchased. Suppose N_A represents the number of firms in industry A. Then the associated costs for the firm will be C_A , C_A' and C_A'' , respectively. By calculating the change in cost associated with each small change in quantity a marginal cost function for the representative firm can be derived and is labeled MC_A^F in Figure 5.2. The notational subscripts in Figure 5.2 indicate the identity of the industry while the superscripts indicate whether the function applies to the firm or the industry.

¹⁵James M. Buchanan, The Demand and Supply of Public Goods (Chicago: Rand McNally and Company, 1968), p. 130.

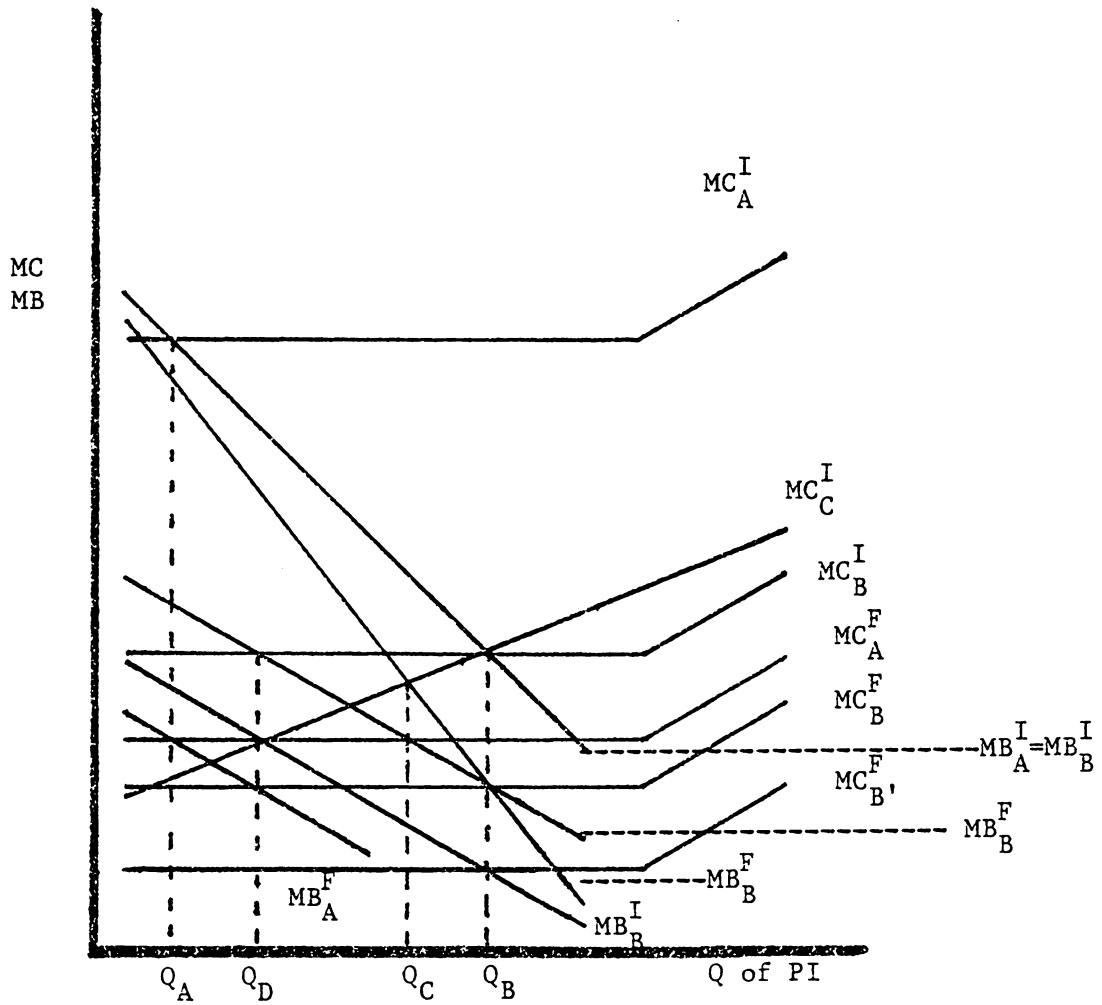


Figure 5.2

Marginal Benefits and Marginal Costs for the
Collective Provision of Political Influence
Under the Assumption that Benefit and Cost
Shares will be Equal

Costs, of course, rise as the quantity taken increases. The inconspicuous nature of A and its members suggests that visibility is not a factor to be considered over the initial range of influence accumulation. None of the firms are visible in the sense that their behavior in the political marketplace is likely to go undetected for some time and over some initial quantity of political influence purchased. Thus, the costs of producing political influence for industry A are not inflated by counter-influence arising from high visibility in the relevant range. Over this quantity range the marginal cost of an additional unit of influence is presumed to remain constant. It is assumed that lumpiness does not characterize costs. Thus, as the industry expands its purchase of the collective good the change in total cost attributable to the purchase of an additional unit is assumed to be increasing at a constant rate. Eventually, however, a point will be reached at which the industry becomes visible due to increasing awareness on the part of potential opposition groups regarding the industry's receipt of a sizeable amount of favors. Once this point is reached, we would expect that the production costs of each additional unit would be greater than the last. This will also be true for the firm's share of costs.

The curve labeled MB_A^F represents this firm's marginal benefits for different quantities of the favor. The benefits will, of course, rise until some maximum level is reached. In the case of industry A durability problems are not a factor affecting marginal benefits over the initial quantity and in the relevant range. If Z represents

industry output and z is the output of the representative firm, then $\frac{Z}{z} = N$ because of the assumptions made regarding the structure of industry A. Consequently, the marginal benefit function for the firm under study will be identical to that for every other firm in industry A. From Figure 4.2 it is immediately clear that Q_A is the preferred quantity for all firms in industry A.

To determine the optimal quantity for the industry it is necessary to construct the benefit and cost functions which represent the sum of the costs and benefits of the individual firms. In Figure 5.2 these functions are labeled MC_A^I and MB_A^I . Therefore, Q_A is also the optimal quantity for the industry.

The "free-rider" phenomenon appears to be an inherent characteristic of the behavior of industry A's members. Olson states the problem as follows:

The analog to atomistic competition in the nonmarket situation is the very large group, which will here be called the "latent" group. It is distinguished by the fact that, if one member does or does not help provide the collective good, no other one member will be significantly affected and therefore none has any reason to react. Thus, an individual in a "latent" group, by definition, cannot make a noticeable contribution to any group effort, and since no one in the group will react if he makes no contribution he has no incentive to contribute.¹⁶

The large number of firms in a "latent" group makes the attainment of what would be the optimal quantity in the absence of the "free-rider" problem impossible to achieve because each firm will consider their

¹⁶Mancur Olson, The Logic of Collective Action, p. 50.

optimal level of cost to be zero. Given the inability of the group to react to the shirking behavior, contributions will, in fact, be zero. In other words, under the existing institutional arrangement it may be impossible to reach agreement and to enforce that agreement.¹⁷

Alternatively, the extremely high decision making and enforcement costs cause total costs to be greater than the benefits to be received for every firm. When this situation materializes no political influence purchase will be made.

It is convenient to incorporate the "free-rider" phenomenon into the model in this way. It is not merely a matter of the existence of this sort of behavior which is of interest but the degree to which it exists. The condition is assumed to be an increasing function of the number of members in an industry after some point. It is assumed that these costs are of little consequence when the number of industry members is very small. At some intermediate point these costs begin to rise as the number of firms increase and eventually the costs rise exponentially. The shape of the decision making function labeled G in Figure 5.1 is determined by the "free-rider" effect. In this analysis the behavior is interpreted to impose decision-making costs of the members of the group. This phenomenon is merely a description of the behavior of decision making costs as the number in the group varies.

In the "latent" group the "free-rider" effect is overwhelming. While Olson claims this may generally be true, he has noted that there

¹⁷James M. Buchanan, The Demand and Supply of Public Goods (Chicago: Rand McNally and Company, 1968), p. 87.

may be some exceptions. If a large group provides not only collective, but private benefits for its members, it may succeed in providing at least some amount (although not necessarily the optimal amount) of the collective good. The dual purpose organization has the advantage of distinguishing between paying and non-paying members. Those who fail to contribute to the cost of the collective good can thus be prevented from enjoying the private good. In this way subtle coercion becomes a feasible method of enforcing cost payments.¹⁸ In other words, this method has the effect of reducing enforcement costs.

Industry A, as represented in Figure 5.2, does not face a situation in which the incentive to invest in political influence is totally overwhelmed by the "free-rider" problem. Note, however, that in the absence of this behavior the optimal quantity for the industry would be far greater than Q_A . However, it must be remembered that many political favors are designed to produce private benefits in the sense that they will be enjoyed by a single firm. Therefore, while industry A may not be very successful in providing collective political influence to its members, the firm may be busily engaged in securing private political benefits.

Turn now to industry B which is characterized by a relatively small number of firms compared to A. It is assumed that A and B are both of equal size as perhaps measured by employment or sales or assets. Thus, the average firm size in B will be much larger than the average firm

¹⁸Mancur Olson, The Logic of Collective Action, p. 51.

size in B will be much larger than the average firm size in A. It will also be assumed that B represents a "typical" industry in that the average member size can be described as "medium" while all firms are not identical in size.

These assumptions suggest that industry B will either fall into Olson's "intermediate" or "privileged" group categories. It is possible that this industry is a "privileged" group in the sense that each member has an incentive to produce the collective political favor even if the full cost must be borne by an individual firm or some greater subset of the industry.¹⁹ Alternatively, the industry may be classified as "intermediate" in that while no individual firm will find it profitable to provide the favor independently, the group is small enough so that shirking from payment will not go unnoticed by other firm members.²⁰

This means that the "free-rider" effect will not make collective political influence investment impossible. It is likely that agreement regarding the optimal quantity and cost shares can be reached. Even in the absence of such an agreement, it is likely that at least some quantity of collective political influence will be secured. The number of firms in industry B is small enough so that the behavior of the members may be at least limitedly monitored by the other members. Consequently, firms will be able to react to skirking by other firms and this interaction serves as a type of coercive device.

¹⁹Ibid., pp. 49-50.

²⁰Ibid., pp. 49-50.

Olson contends that in most "intermediate" groups, the quantity that is actually provided will be sub-optimal.²¹ His argument again rests again upon the "free-rider" phenomenon. The optimal quantity from the viewpoint of the group will be provided only if the proportion of costs borne by each firm is equal to its proportion of benefits. Olson points out, however, that the distribution of costs is more likely to be arbitrarily set. In this case, the actual level of provision will be determined by the largest member of the group. If the largest member of the industry faces a situation such that its benefits exceed the industry's costs over some quantity, it will be in the interest of that firm to provide that quantity for itself. However, after the favor is secured, all firms in the industry will enjoy the benefits and no other firm will have an incentive to provide additional units. Since the smaller firms have no incentive to provide additional units independently, they will "free-ride" on the larger firm. It is then probable that the largest firm will bear a disproportionate share of the burden. In the words of Olson, "where small groups with common interests are concerned...there is a systematic tendency for "exploitation" of the great by the small!"²² From the Olson perspective, the "intermediate" character of industry B suggests that not all firms will choose to invest in the political influence pursuit. Olson credits this fact to "free-riding."

²¹Ibid., pp. 27-33.

²²Ibid., p. 29.

For an alternative interpretation of industry B's predicament, it will be helpful to refer to an explanation offered by Norman Frohlich and Joe A. Oppenheimer.²³ The authors demonstrate that the "free-rider" problem need not accompany increases in group membership. They argue that rationality may dictate that members voluntarily contribute a fair share for the collective provision of goods. By focusing on the decision calculus of individual group members they demonstrate that the amount invested will depend upon the individual's perception of the probability that his donation will be effective. The results of the calculation depends upon the person's estimate of the probabilities associated with different levels of contributions of the other group members. This yields the individual an estimate of the effect his contribution will have upon his own welfare. They show that if a member is observed not donating in a large group it must be because he perceives that due to increases in size, his contributions would not affect the quantity of the collective good to be purchased. They argue that this is either because the member feels that the large group will be able to collect such a high level of contributions that this will unnecessary or, if the investment is lumpy, the member may feel that the probabilities of the others contributing the required amounts are so small that it will be impossible to acquire the good with or without his donation. They conclude that as long as there exists a managing mechanism which aids in coordinating the expectations that members have regarding the behavior

²³Norman Frohlich and Joe A. Oppenheimer, "I Get By With a Little Help From my Friends," World Politics 23 (October, 1970), pp. 104-120.

of others, collective goods can be supplied regardless of the size of the group.

In the Frohlich-Oppenheimer analysis there is no justification for assuming that the members of larger groups will err in estimating the behavior of other members.²⁴ In the words of the authors:

"...only if his estimates of the probable behavior of others have shifted in a particular manner can we predict an increased free-rider problem..." (with increases in group size).²⁵

If an individual does not contribute as group size grows it must be because of "positive bargaining and transactions costs and imperfect and costly information."²⁶

Underlying Olson's conclusions regarding "intermediate" group behavior appears to be the assumption that group members will not correctly estimate the behavior of others and will therefore incorrectly estimate the value of their own contributions to their individual welfare. High transactions costs and imperfect information appear to be the basis for Olson's conclusions. The "mechanism" of which Frohlich and Oppenheimer speak is an information medium which reduced or eliminated the transactions costs. Such a mechanism would exist if each member had perfect knowledge of the preferences of every other member which would equate their marginal benefits and costs. In

²⁴Ibid., p. 114.

²⁵Ibid., p. 116.

²⁶Ibid., p. 113.

the absence of such information, even in the small numbers case in which all participants of the groups are identifiable, the optimal quantity of a public good will not be purchased because individuals will be able to withhold contributions on the grounds that their preferences are below the "true" level. However, if "true" preferences are known, shirking would be identified by all. Knowledge that for some, the benefit share exceeds the cost share would mean that to others the situation was reversed. For the latter group no contributions would be expected to be forthcoming. Thus, in the case of a lumpy investment, an individual would conclude that a voluntary contribution would be irrational since it is not possible to acquire the good. In this case, provision of the collective good appears to be an all-or-none situation. If it is not lumpy he may contribute anyway toward what he knows to be a profitable but less than optimal level of the collective good.

It is evident that "...price" differentials among separate demanders of public goods must reflect differentials in preferences, even down to the individual level, if the necessary conditions for optimality are to be satisfied."²⁷ In the relatively small numbers case, the mechanism, which equated "price" differentials and preference differentials at the individual level is the knowledge held by each group member regarding the preference differentials across all other members.

²⁷James M. Buchanan, The Demand and Supply of Public Goods (Chicago: Rand McNally and Company, 1968), pp. 129-130.

The application of the Frohlich-Oppenheimer model to the subject under study implies that a sufficient amount of pressure will be forthcoming to assure that either none or the optimal quantity of political influence will be provided. The publically held knowledge of each member's benefits in addition to the costs of attaining the optimal level of the public good forces the realization that individual benefits cannot be maximized unless a voluntary contribution equating marginal benefits and costs are made. This gives the individual the necessary information regarding the effect of his contributions on his personal benefits.

Political influence accumulation is lumpy in character. Industry B is sufficiently small so that identification of individual group members is possible. The technological nature of most forms of business political influence causes industry benefits to be distributed in a predictable manner exactly according to industry shares. Consider again, the depreciation allowance on capital peculiar to an industry. It was shown that the percent of industry capital employed by a firm will determine the percent of industry benefits captured by a firm. If costs are also divided in a manner which reflects market share then costs will vary among firms in a manner identical to the variation in benefits and wealth. If costs are not divided in this fashion all will know that many others will not contribute and either none or a very sub-optimal quantity will be provided. If all members are rational, each will contribute the optimal share.

In order to determine the optimal level of investment for industry B and its members, we will employ the same procedure as that followed for industry A. Assume that the political favor sought by industry B is identical in every way to that sought by industry A. First consider the largest firm in industry B which by assumption would be classified as nearly "medium" in size over all industries. The marginal cost function for this firm is labeled MC_B^F . This includes direct organizational and decision making costs. Marginal benefits are represented by the function labeled MB_B^F . MC_B^I and MB_B^I represent the cost and benefit function for industry B. Note that each firm in the industry is considered to be identical in all respects except size. Thus, the benefits will vary in a similar fashion for different quantities of political influence for all firms. The magnitudes of the costs and benefits will be different, but these will vary proportionately among firms according to market shares.²⁸

In the usual manner, costs will rise as the quantity purchased increases. Like A, because of its relatively low public profile, industry B's marginal costs will not rise, at least over the initial range of political influence accumulation. However, as the total transfers received by this industry increase beyond some level the cost will begin to rise. Additionally, counter-influence will not reduce the durability of influence. The marginal benefit and cost curves for the largest firm in industry B reflects its market share and for this firm

²⁸Mancur Olson, The Logic of Collective Actions, p. 143.

marginal benefits equal marginal costs at quantity Q_B . Similarly, if we allow MB_B^F and MC_B^F to represent the situation facing a smaller firms in industry B we observe that the equality holds at the same quantity. The quantity for the group will also be Q_B as represented by the intersection of the industry marginal cost and benefit functions labeled MC_B^I and MB_B^I , respectively.

Consider Olson's scenario, however. Should the largest firm of industry B bear all of the costs, Q_D will be the quantity provided by the firm independently. This is a sub-optimal quantity, but it is important to note that the "free-rider" problem does not completely overwhelm the industry's incentive to secure political influence. However, it is contended that the situation facing B is either more or less bleak than Olson's hypothesis indicates. It is quite possible that political influence investment is lumpy in nature which would suggest that the largest firm in industry B would be rational to contribute nothing since the firm would have knowledge that others were not contributing an amount sufficient to acquire the political good. It is still in the interest of the member firms to secure additional units of political influence and due to the small number of firms comprising B, it is likely that an agreement could be reached whereby cost shares more closely resembled benefit shares. Each firm may perceive its failure to contribute as a source of the inability to secure the good.

Now, consider industry C which is equal in size to both A and B, but is composed of one very large firm. The process of developing the marginal cost and benefit functions for C is straightforward. The

situation facing the industry is identical to that facing the firm and the cost and benefit functions are labeled MC_C^I and MB_C^I , respectively. Total costs rise at an increasing rate over all quantities due to counter-influence which is a serious factor affecting the costs of political influence for this time. It is highly visible and its conspicuousness means that its actions are monitored and its receipt of favors made public. For any given quantity of political influence for the firm, the production costs to legislators is much higher than for either A or B. This is reflected graphically by rising marginal costs. Over the initial quantity range marginal costs for C are below that for industry B because C incurs only the direct costs of political influence investment. It encounters no organizational or decision making complications.

Counter-influence also has a depressing effect upon the firm's benefits. The non-durable product purchased by C implies it enjoys much lower productivity of political influence than either A or B. The situation facing C causes the optimal level of political influence, Q_C , to be smaller than the quantity which satisfied the optimality conditions in industry B.

IV. Conclusions

When evaluating the implications of the model it is important to differentiate between disproportional political influence between industries and disproportional influence between firms. First, consider influence between industries when industry B provides for its members the optimal amount of political influence which is by definition,

collective in nature. Industry B will always choose to purchase a greater amount of political influence than C as long as both industries are of equal size. Likewise, B will always choose to purchase a greater amount than A because of extremely high transactions costs and a lack of information in A. This would seem to imply that industry political influence would rise with increases in average firm size and would then fall after visibility began to seriously influence the costs and benefits derived from the provision of the collective good. Industries characterized either by a small number of highly visible firms or a very large number of extremely small firms would be expected to possess a disproportionately small amount of political power. If the political activities of industry B are greatly complicated by organizational difficulties which is a possibility suggested by the Olson hypothesis, then we would expect rising firm size to be accompanied by a disproportionately great amount of political power.

The arguments presented in the last section reject the last possibility. Olson, himself admits that the "typical" industry is unlikely to encounter substantial organizational difficulties.²⁸ In the next chapter this hypothesis will be put to an empirical test. From what has been said we predict that medium size firms will exhibit the greatest demand for political influence. Thus, we would expect rising firm size to first be accompanied by increases and ultimately decreases in political influence. However, it is interesting to note

²⁸Mancur Olson, The Logic of Collective Action, p. 143.

that most empirical samples would be expected to be composed primarily of observations which did not exhibit substantial "free-rider" problems because of data availability. Thus, we would predict a negative association between firm size and political influence. Most of the observed differences will be between industries characterized by "medium" and "larger" size firms.

Now, consider the proportionately question between firms. Since the firm, regardless of its industry classification, is the unit of observation it becomes necessary to define the quantity of favors as the sum of collective and exclusive units of political influence from which the firm benefits. Thus, the total amount of political "favors" secured by a firm is equal to the collective units it employs due to independent or group provision plus the exclusive units which it purchases independently. The implications of the model suggest that a conspicuous large firm will invest in a disproportionately small amount of exclusive political influence. The lower costs faced by a smaller non-visible firm accompanied by greater than proportional benefits for any given quantity of political influence suggests the smaller firm will purchase a disproportionately large amount of political influence. Consider a large visible firm with assets of eighty million dollars and two smaller less visible firms each of which possess assets of forty million dollars. Each of these firms is exactly one half the size of the larger firm. The model predicts that each of the smaller firms would possess more than one-half as much influence providing exclusive benefits when compared to the larger firm. Whether the sum of

collective and exclusive benefits will be disproportionately great for the small firm will depend upon the proportion of total influence units which are collective.

The expressed purpose of this study has been at least partially fulfilled. A model has been developed to explain the relationship between firm size and political influence. This model demonstrated that, *ceteris paribus*, rising average firm size across industries need not be associated with disproportionate increases of political influence. In fact, it has been shown that in the absence of organizational problems of the "free-rider" type, large firm size will be accompanied by a disproportionately small amount of political influence. Furthermore, rational behavior on the part of members of the "typical" industry in the United States dictates that the optimal amount of political influence will be provided.

Additionally, consider the effects of the size distribution of firms upon the industry demand for political influence. Olson points out that given two groups with the same number of members, the group characterized by a more unequal size distribution among its members is likely to secure a greater amount of the collective good than the other group.²⁹ This is true because the larger the firm, the larger the absolute level of expected benefits. Thus the largest firm will be better able to bear the total cost of collective political influence if organized provision is not possible. Observation suggests that in the

²⁹Ibid., pp. 28-29.

"typical" industry variance in size distribution is quite substantial. The greater is the variability in firm size, the closer the industry will come to providing the optimal level of political influence for its members despite any "free-rider" behavior on the part of smaller members of the industry.

Finally, this chapter has been confined to political influence of the secondary type. However, the topic of primary political influence is worthy of at least a brief discussion. While the "free-rider" effect may dampen an industry's incentive to invest in political influence, it would appear to be stronger the more generally dispersed are the benefits. Primary political goals promise to convey benefits over many or all industries and conceivably, over all citizens. The level of provision of primary political influence would promise to be sub-optimal. It is clear that small firms will have an incentive to concentrate their political influence pursuits on secondary goals. Given the collective attributes of primary political incentive to pursue such matters. This is true because the generalized benefits promised by the primary measure implies that counter-influence and thus costs will be smaller than for secondary issues. Additionally, greater durability implies greater benefits. When these considerations are accompanied by the overall enormous absolute level of benefits to be captured by large firms on such issues it appears obvious that most resources devoted to primary pursuits will arise from relatively large firms.

CHAPTER 6

AN EMPIRICAL TEST

I. Introduction

Having put forth a theory regarding the demand and supply for business political influence, it is appropriate that the predicted relationships be put to an empirical evaluation. The task is to test the supply and demand specifications presented in the preceding chapters. The following section will present a very brief review of the theoretical demand and supply models. Section III discusses the empirical methodology as well as the data. The final section is devoted to the empirical results.

II. A Review of the Theory

Chapter 3 developed a model of the supply side of the market for legislative business political influence. In the usual way, the quantity supplied is presumed to be a function of input prices as well as the price of political influence. To reiterate:

$$Q_s = f(P, V, GD, UN, I, REG, T, J, E),$$

where: Q_s = quantity of business political influence supplied

P = price of political influence

V = visibility of the recipient business unit

GD = geographical dispersion

UN = unionization

I = industry size

REG = regulatory status of the business recipient

T = legislative tenure

J = judiciary

E = executive governmental branch

It was hypothesized that holding the price paid for political influence constant, the quantity supplied will vary across business units in a manner which reflects differing production costs. It was demonstrated that the visibility of the recipient will help to determine the extent to which counter-influence will reduce the re-election probabilities of supporting legislators. Two competing theories regarding the effects of geographical dispersion upon legislative production costs were presented. The first suggested that greater dispersion will increase the probability that the firm or industry will acquire the support of the necessary number of legislators.¹ From this perspective, greater geographical dispersion promises to reduce the amount of vote-trading that is required to insure passage of special-interest legislation for business. The alternative theory suggests a positive association between locational concentration and the quantity supplied. Other things being equal, the behavior of a geographically concentrated industry is likely to have pervasive effects upon the local environment. It is reasonable to assume that voter-

¹See J. J. Pincus, "Pressure Groups and the Patterns of Tariffs," Journal of Political Economy 83 no. 4 (August, 1975): 757-778.

citizens in the same district will view special-interest legislation for the local corporate unit with favor.² Thus, the legislators in the district would be predicted to support any special-interest legislation designed to benefit the local firm or industry since to do so would not deteriorate re-election probabilities. In fact, under certain circumstances, support may be expected to actually enhance these probabilities.

Union coverage and the bargaining position of the union may influence the quantity supplied to a firm or industry. The bargaining power of the employee group relative to that of the corporate entity will help to determine the final distribution of political benefits.³ Production costs will therefore be lower when production takes place for a business unit facing a large and powerful union than would otherwise be the case. Voters who perceive themselves as being fellow-recipients of special-interest favors for their employers will not be a likely source of counter-influence.

Industry size is included because the lack of a collective bargaining agreement does not preclude the possibility that employees will reap some of the rewards of successful investment in political

²See John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence from the Federal Corporation Income Tax Program" (Ph.D. Dissertation, University of Wisconsin, 1972). (Hereafter cited as "The Relationship Between Economic Structure and the Effect of Political Influence.")

³Richard Posner, "Theories of Economic Regulation," Bell Journal of Economics and Management Science 5 no. 2 (Autumn, 1974), p. 347.

influence. Consequently, larger industries, as measured by the number of employees, may enjoy more favorable supply conditions.⁴

Regulatory status is another important determining factor on the supply side of the market for political influence. Once a non-regulated industry becomes regulated, the costs of producing further political influence for it may be reduced. The legislature, through the administrative agency which it creates becomes more closely tied with the affected business units as a result of the decision to regulate. Stigler's theory suggests that regulation itself is a form of business political influence. Consequently, regulation has a unique effect upon production costs when compared with other possible forms of business-government interaction.⁵ Legislative benefits produced for firms facing economic regulation are more easily defended to the electorate than would otherwise be the case. For instance, a special tax allowance may be explained as a move to avoid the necessity of passing cost increases on to the consumer. Production for firms facing non-economic or social regulatory constraints may also be less costly. Even though market forces may determine price, it is quite likely that some of the costs of the regulatory burden will be believed to be shifted to consumers. Consequently, measures viewed as being designed to compensate for such burdens are less likely to be met with a great amount of voter opposition.

⁴This is in the spirit of John Siegfried.

⁵George Stigler, "The Theory of Economic Regulation," Bell Journal of Economics and Management Science 2 no. 1, (Spring, 1971): 3-21.

There are three remaining variables in the supply function whose roles will be briefly reviewed. First, production costs and tenure are expected to vary inversely across legislators. Thus, the seniority status of producing legislators is expected to be a source of cost differentials. *Ceteris paribus*, more highly tenured legislators encounter lower production costs. Similarly, the overall tenure of the legislative body and costs will vary in a like manner throughout time.⁶ The role of the executive and judicial branch in the cost function becomes evident as soon as it is recognized that these governmental bodies may favorably or negatively alter the quality of the legislative product. Employing the Landes-Posner and Crain-Tollison theories regarding the judicial and executive branches respectively, it is hypothesized that legislative production costs will be influenced over time according to whether or not judicial decisions and executive vetoes tend to enhance the durability of special-interest legislation.⁷

From the model presented in Chapters 4 and 6, the demand function for special-interest legislation by business may be defined as follows:

$$Q_D = g(P, V, I, C, UN, REG, J, E),$$

⁶W. Mark Crain and Robert D. Tollison, "The Influence of Representation on Public Policy," The Journal of Legal Studies VI no. 2 (June, 1977), p. 355.

⁷See William M. Landes and Richard A. Posner, "The Independent Judiciary in an Interest Group Perspective," The Journal of Law and Economics 875 (1975): 875-918 and W. Mark Crain and Robert D. Tollison, "The Executive Branch in an Interest Group Theory of Government," Journal of Legal Studies VIII no. 3 (June, 1979): 555-568.

where P , V , I , UN , REG , J and E are defined above. The quantity of business political influence demanded is represented by Q_D and C denotes industrial concentration.

Business political influence is an input in the production process of the firm or industry and thus, the demand is considered to be a derived demand. The final demand function consists of the price, factors influencing the productivity of political influence for the acquiring firm as well as the price of related inputs. A brief review of the role of the above-mentioned factors in the demand function will be the topic of the following paragraphs.

Visibility affects the productivity of the input political influence because greater visibility impedes the ability of the firm to effectuate transaction cost reductions within the firm which is a normal by-product of the employment of political influence. This arises due to the fact that a political favor will normally be less durable the more visible is the beneficiary.

Industry size is included in the demand function primarily for the purpose of control in accessing the effects of firm size on the political influence market. Additionally, it has been proposed that *ceteris paribus*, favors produced for larger industries, will arouse less opposition and will therefore be more desirable. If these suspicions are correct, then larger industrial beneficiaries will enjoy greater productivity in the use of the input.

Since employee bargaining power may help to determine how the benefits from successful investment in political influence are

distributed, it is therefore a factor setting bounds on the overall size of those acquired benefits to a firm or industry. However, durability and thus the productivity of political influence was said to be a function of unionization. Empirical evaluation will hopefully shed light upon the net effect.

The regulatory status of a firm or industry helps to determine the durability and therefore the productivity of the political influence input. *Ceteris paribus*, a regulated firm can consider a political favor to be a more durable product than that produced for an unregulated firm. This is because regulation has been shown to eliminate many of the sudden changes to which a firm must adjust. These changes are associated with greater competition. To the extent that regulation reduces counter-influence because of the use of selective information, it also positively affects the productivity of political influence. It should be recalled that there is an alternative, although not competing observation made by Richard Caves regarding the effects of industrial regulatory status and political influence.⁸ He notes that the fixed costs of maintaining a voice in decision-making may be especially high relative to the expected benefits for the small regulated firm. The cumbersome and lengthy rules and operating procedures of regulatory agencies may actually be the outcome of attempts to reduce the net benefits of tampering with the

⁸Richard E. Caves, "Commentary" in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Washington, D. C., July, 1980, p. 316.

agency's decision-making process, notes Caves.⁹ From this perspective, Caves concludes that the resulting high fixed costs give an advantage to large firms. To the extent that the agency is the vehicle through which attempts to acquire political influence are channeled, it is possible to conclude that large firm size is an advantage if the firm is regulated. This proposition will be tested empirically. Concentration is presumed to affect an industry's demand for political influence in the manner described in the last chapter.

Finally, the price of judicial and executive political influence enter the demand function to account for the possibility that these branches are substitutes for the legislature.

III. The Empirical Methodology and The Data

The model must now be transformed so that it is suitable for empirical testing. The object is to discern whether those factors identified in the last section do, in fact, largely determine the demand and supply of political influence in the manner predicted.

The choice of the base from which to measure political influence is a difficult one. The theory regarding the demand and supply for political influence is general and relates to all of the forms which political influence might take. Clearly, there is a high degree of substitutability among different forms of political influence and the unique environment of each industry will determine the productivity of

⁹This point was first made by Roger G. Noll, "The Behavior of Regulatory Agencies," 29 Review of Social Economy, 5 (1971).

the different forms for each. For this reason, the results of an empirical model employing only one form of political influence to represent the total quantity received must be interpreted with caution. An industry may exert very little political influence in the particular business-government interaction mode chosen for study and yet may enjoy enormous political benefits in other areas. This would suggest that the most promising empirical study would attempt to measure all political benefits regardless of the medium through which they arise. However, the inclusion of all forms of possible business political influence would involve overwhelmingly difficult measurement problems and complicate the analysis.

The chosen base from which the quantity of political influence is measured is tax rates at the national level. It seems reasonable to assume that all firms, regardless of their product markets, stand to benefit from favorable tax treatment. This is not necessarily true for other forms of political benefits. For instance, import restrictions may convey enormous benefits to an industry suffering from serious international competition. However, other domestic industries may view import restrictions as unnecessary. The productivity of favorable tax treatment appears to be less sensitive to differing product market environments among industries. In addition to the fact that all firms can benefit from favorable tax treatment, it is well known that corporate tax law does not treat all firms and industries in a like manner. It therefore appears that differential tax treatment is an excellent candidate for measuring the quantity of political influence.

To the extent that specialized tax reductions represent non-generalized benefits to individual firms, they are purely secondary in nature. However, to the extent that legislative tax measures affect all agents they may be described as purely primary in that the benefits are collective. In general, the legislature's tax treatment of business will produce benefits for an industry or group of industries. These benefits can be defined as primary across the affected portion of the business community and secondary across all economic agents. Members of the same industry have common interests employing similar ratios of capital to labor, similar types of inputs and they deal in the same wholesale and retail markets. Thus, special tax measures can be expected to affect industry members similarly. The extent to which tax treatment is asymmetrical across industries is assumed to be the result of the interaction of demand and supply forces in the political influence market. The unit of observation in this study is the industry as classified by the Internal Revenue Service. It is possible that a similar empirical experiment employing firms as the unit of observation would also yield revealing insight into the questions under study. However, for reasons of privacy, some of the important data needed for this experiment are not available on a firm by firm basis. There is an advantage to be derived from observing industries rather than firms. It was noted that many political favors are collective in nature over an entire industry. This is generally true for measures involving special tax treatment which is to be studied here. Observing industries as opposed to firms will facilitate the testing of the hypothesized

"free-rider" effects. Cross-sectional data is employed in the models which follow to examine the demand and supply of political influence. All of the data, with one exception to be discussed below pertains to the 1976-1977 time period.

The tax data used in this study is published by the Internal Revenue Service in the Statistics of Income - 1977, Corporation Income Tax Returns.¹⁰ The industries which form the observations are those defined by the IRS in the Statistics of Income series hereafter referred to as SOI industries.¹¹ The IRS classifies 183 different SOI industries. All agricultural, banking, wholesale, service, transportation and public utility industries were eliminated because a substantial portion of the necessary data was unavailable, leaving 102 SOI industries. Further data problems reduced the sample size to 60 observations for which all of the data were available. The sample includes mining, construction, manufacturing and retailing industries although manufacturing industries make up the majority of the observations. It should be noted that the 60 observations actually cover 63 SOI industries. Reporting techniques differed according to data sources in the beverage industry. To insure accuracy in the calculation of the variables, the sub-industries making up the more comprehensive beverage industry were combined. For the same

¹⁰Internal Revenue Service, Statistics of Income - 1977, Corporation Income Tax Returns, U.S. Government Printing Office, Washington, D. C., 1981.

¹¹Ibid.

reason, grocery stores and other food stores, SOI 5410 and 5490 respectively, were combined.¹²

The sample employed here includes a wider range of industries than those used in some of the other empirical studies conducted thus far.¹³ A broader sample can only serve to add substance to the rather bare-boned empirical offerings which exist. The political influence hypothesis does not rest upon any assumptions concerning the industrial classification of the business unit. There are no a priori theoretical grounds upon which judgments to exclude non-manufacturing industries can be made. Casual observation suggests that construction and retailing are likely to be less concentrated than either mining or manufacturing. Thus, inclusion of these industries in the sample should provide greater variability of the values among the exogenous variables. Greater variation in the values should aid in determining the usefulness of our a priori expectations.¹⁴

The effects of tenure upon production costs will not be incorporated in any of the empirical models. While the absolute tenure level may be

¹²Specifically, SOI industries 2081, 2088 and 2089 which are respectively, malt liquors and malt, alcoholic beverages and bottled soft drinks and flavorings were combined. The combination industry is labeled 2080 and referred to as Beverages in the accompanying tables. Grocery Stores and Other Food Stores were also combined to form one observation which is referred to as SOI industry 5410, and labeled Food Stores.

¹³For instance, the Siegfried work was based upon a sample consisting of mining and manufacturing. Cynthia Glassman's study was based solely on the banking industry. For complete citations and other examples see Chapter 3.

¹⁴Henry J. Cassidy, Using Econometrics: A Beginner's Guide, (Reston, Virginia: Reston Publishing Company, 1981).

expected to affect production costs, this is essentially a time-series concept and given the cross-sectional nature of the data, this value will be the same for all observations. Also, the cost differentials across legislators arising from differing levels of tenure is a useful concept in a study designed to explain variations in production levels across supplying legislators. However, it is unnecessary for the purpose at hand in which supply is considered in the aggregate.

Neither are judicial decisions or the executive veto included in the supply or demand equations of the models. First, consider the role of these variables in the supply equation. The tendency for judicial decisions and the executive veto to reinforce previously passed legislation may vary over time, thus affecting legislative production costs. The recognition of the role of the other two branches of government is important to any explanation of the determinants of the durability of legislative output. However, due to the cross-sectional nature of the data, the variables need not be included in the empirical version of the supply equation.

These variables are also excluded from the demand equation although they were entered in the theoretical counterpart to account for the possibility that they are substitutes for legislative political influence. The traditional view points to the idea that the separation of powers increases the probability that influence seekers will have their views represented. In this sense, the judicial and executive branches represent substitutes and this suggests that the prices of influence from the two alternative sources should be included in the

demand equations.¹⁵ However, from the standpoint of the theory presented by Landes and Posner, substitutability is non-existent. They argue that decisions of an independent judiciary are made in light of the intention of the passing legislature. Appealing to judicial decisions provides some convincing evidence in favor of their arguments. The case of *Brown Shoe Co., Inc. v. United States* is exemplary.¹⁶ In considering the competitive effects of a vertical merger, the Court noted that the shoe industry was essentially atomistic but said that even if competition remained vigorous after the merger, it could not be condoned if the trend in the industry was toward oligopoly. Congress had revised the law to preserve competition and prevent oligopolistic markets from developing and based upon this the Court found the merger to be undesirable. Chief Justice Warren noted that *Brown Shoe Co. Inc.*, had a policy of forcing its own shoes upon its retail subsidiaries and that this coupled with a trend toward oligopoly may foreclose competition.¹⁷ Peter Asch has interpreted this decision to reflect the Court's strict reading of Congressional intent.¹⁸ This lends support to the Landes-Posner hypothesis which is accepted as the preferred argument. It is also

¹⁵See Martin Shapiro, Law and Politics in the Supreme Court: New Approaches to Political Jurisprudence (New York, Free Press of Glencoe, 1964).

¹⁶*Brown Shoe Co., Inc. v. United States*, 370 U.S. 294 (1962).

¹⁷Werner Z. Hirsch, Law and Economics: An Introductory Analysis (New York: Academic Press, 1979), pp. 252-253.

¹⁸Peter Asch, Economic Theory and the Antitrust Dilemma (New York: Wiley, 1970), p. 300.

doubtful that a meaningful proxy of the price of national judicial or executive influence across industries could be developed.¹⁹

Data

The tax measure is calculated from the above-mentioned Statistics of Income - 1977, Corporation Income Tax Returns published by the IRS.²⁰ The SOI industries classification scheme by the IRS generally conforms with the Enterprise Standard Industrial classification by the Office of Information and Regulatory Affairs.²¹ Both of these classification schemes are less detailed than the more familiar Standard Industrial Classification (SIC) of the Census Bureau. However, except for the degree of detail, the SOI and SIC systems are very similar. The major distinction is that the SOI scheme is based upon classification of "companies" while the SIC system classifies separate "establishments" which comprise the "companies."²²

Under the existing federal corporate tax law in 1977, firms were taxed 20 percent on the first \$25,000 of taxable income, 22 percent on

¹⁹In fact, after consulting an expert in the area of corporate law, I became convinced that the required data was unavailable, at least at any reasonable resource cost.

²⁰Internal Revenue Service, Statistics of Income - 1977, Corporation Income Tax Returns, U.S. Government Printing Office, Washington, D.C., 1981.

²¹The Office of Information and Regulatory Affairs is a branch of the Office of Management and Budget.

²²For a discussion see Internal Revenue Service, Statistics of Income - 1977, Corporation Income Tax Returns, U.S. Government Printing Office, Washington, D.C., 1981, p. 15.

the next \$25,000 and 48 percent on the remainder of taxable income.²³ These rates applied to calculated income after all allowable deductions and were the same for all industries. These nominal tax rates differ from "effective" tax rates which are based upon income before allowance for special deductions. It is the "effective" tax rates which are expected to differ across industries because industries are unable to take equal advantage of special tax allowances. Successful investment in political influence for the purpose of securing tax relief will be reflected in the quantity and magnitude of special tax allowances. Increases in tax relief for an industry will result in a lower tax rate when this rate is calculated as taxes paid as a percent of income net of "true" costs. The "effective" tax rate is calculated as follows:

$$\frac{\text{Taxes Paid}}{\text{Business Receipts} - \text{Costs of Sales and Operations}}$$

Business receipts are defined by the IRS as "the gross operating receipts of the corporation reduced by the cost of returned goods and allowances."²⁴ The cost of sales and operations includes the direct costs incurred by the corporation in producing goods or providing services as well as some indirect costs.²⁵ Thus, the denominator represents net income before allowance of special deductions because the

²³Ibid, p. 105.

²⁴Ibid, p. 97.

²⁵Ibid, p. 99.

object is to measure the importance of these deductions to different industries. Alternatively the denominator may be considered the base of each industry's tax capacity. The calculated rate reflects the tax effort exerted by the government on the industry.

It may be objected that many corporate tax deductions are founded on economic justification. Capital depreciation allowances are a primary example. Yet this matter is not the concern of this study. Strong economic justification may facilitate the passage of legislation, but it is not necessarily the motivating factor. If it were and neutrality was an additional consideration, investments in human capital would be treated in a manner similar to investment in physical capital. It is important, however, that somehow physical assets are controlled for in the experiments which follow. Since assets contribute to the value of the denominator of this measure we can expect that greater assets would be associated with greater net income and lower effective tax rates as calculated. In order to control for this, assets are included in the empirical models which follows. Industry assets were recorded directly from the same source for each SOI industry.

Also note that taxes paid are calculated before subtracting certain allowable credits. Taxes before credits rather than taxes after credits were chosen as the superior measure of tax liabilities for the purpose at hand. The difference between these two measures and as reported by the IRS is the dollar value of the foreign tax, U.S. possessions tax, investment, work incentive (WIN) and new jobs credits. It can be argued that some of these credits are examples of the successful procurement of

primary political influence providing generalized benefits. This is particularly true for the work incentive (WIN) and new jobs tax credits. The use of tax liabilities after credits in the calculation of the effective tax rate would seem to attribute a portion of the variation in the tax rates to the pursuit of secondary political influence by business when, in fact, this may not be the case. The preferred measure of taxes paid would be that which was calculated by subtracting out the U.S. possessions tax and investment tax credits while maintaining the other three in the tax liability measure. Unfortunately, the manner in which the data are reported does not allow this type of calculation.

In light of the discussion throughout this dissertation, the natural candidate to capture differences in visibility among industries is a firm size variable. The measurement base for the firm size variable is sales. Alternative bases from which to measure firm size might include assets, value-added or employment. The object is to capture the essence of visibility as fully as possible so the most appropriate base is the one which best represents those attributes that are most likely to determine counter-influence for any given level of political favors. It is contended that the level of sales as opposed to the alternative measures more closely captures that visibility phenomenon. Additionally, consideration of data availability lends further support to the choice of sales as a measurement base. However, a measure based on assets or value-added would be expected to move in a similar manner.

Even the existence of one very large firm in an industry which is otherwise composed of small firms may impose impediments upon the ability

of the industry to acquire political influence. For this reason the firm size variable is defined as the mean firm size in an industry. The advantage of the mean rather than median firm size in this situation results from what is usually considered to be its major drawback. Namely, the mean is distorted by the skewness of the firm size distribution and this is precisely what is desired in light of the theory. It is beneficial to have a measure of firm size which reflects the extreme firm sizes in an industry. Unfortunately, the IRS does not publish the needed data according to the SOI classification scheme at this date.²⁶ For this reason the data were compiled from the 1977 Enterprise Statistics General Report on Industrial Organization²⁷ and converted to the IRS SOI classification scheme. The firm size variable is computed in the following way. Thirteen different size classes are reported in Enterprise Statistics.²⁸ Since a frequency distribution was employed to calculate the mean, the midpoint was used as the estimate of the class mean for each size class. The number of firms in each

²⁶Periodically, the Department of Commerce publishes a document designed to measure the degree of comparability between Census Bureau and IRS industrial data entitled Enterprise Statistics, Link of the Census Establishment and IRS Corporation Data. The information which this contains would be helpful in the calculation of the variables. Unfortunately, this publication is still in the preparation stage.

²⁷Bureau of the Census, 1977 Enterprise Statistics: General Report on Industrial Organization, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C., 1981, Table 4. (Hereafter cited as 1977 Enterprise Statistics.)

²⁸Ibid.

Enterprise industry was used as a weight in the following computation of the arithmetic mean:

$$\bar{F} = \frac{1}{N} \sum_{i=1}^{13} md_i n_i,$$

where $\bar{F}$ refers to the estimated mean firm size in the industry, md is the class midpoint, n is the number of firms in each size class and N is the number of firms in the industry.

It was then necessary to convert the Enterprise industry size variable to conform with the SOI classification scheme. Enterprise industry employment as reported in the same source was used as a weight in the calculation of weighted averages for each SOI industry.²⁹ Specifically,

$$\bar{F}_{SOI} = \frac{1}{N} \sum_{i=1}^n \bar{F}_i n_i,$$

where $\bar{F}_i$ is the calculated mean firm size in each Enterprise industry, n_i is the employment in that industry, and N is the total employment for all of the relevant Enterprise industries.

The only exception to the above process occurred with the calculation of the firm size variable for mining industries. Instead, it was calculated from the Bureau of the Census' 1977 Census of Mineral

²⁹Ibid.

Industries.³⁰ The Bureau of the Census reports nine size classes. The mean was calculated in a manner similar to that described above. The sign on the firm size variable is predicted to be positive in both equations.

The percent of all workers covered by collective bargaining in each SOI industry is employed as a measure of unionization. The union variable was taken directly from the work of Richard B. Freeman and James L. Medoff in their article "New Estimates of Private Sector Unionism in The United States."³¹ The variable represents the percent of all workers who were covered by union-management agreements for three-digit 1967 SIC industries. The authors calculated these union coverage rates from the Bureau of Labor Statistics survey Expenditures for Employee Compensation (1968-1972).³² The union coverage rate was converted from three-digit SIC industries to the SOI industry classification scheme in the manner described in the calculation of the firm size variable.

Since these statistics are for an earlier period and do not coincide with the time under study, it can only be hoped that relative differences in union coverage did not change significantly during this span of time.

³⁰Bureau of the Census, 1977 Census of Mineral Industries: Subject, Industry and Area Statistics, Department of Commerce, U.S. Government Printing Office, August, 1981, Table 3. (Hereafter cited as 1977 Census of Mineral Industries.)

³¹Richard B. Freeman and James L. Medoff, "New Estimates of Private Sector Unionism in the United States," Industrial and Labor Relations Review 32 no. 2 (January, 1979): 143-174.

³²Bureau of Labor Statistics, 1968, 1970, 1972 Expenditures for Employee Compensation Summary, Washington, D.C.

It must be recognized that collective bargaining coverage which this variable measures is not necessarily indicative of the bargaining power of the union and it is the latter which is likely to be the primary determinant of the distribution of political benefits. However, it is assumed that union coverage and bargaining power are highly and positively correlated. It is predicted that this variable will have a negative sign in both the demand and supply equations. However, in the demand equations the coefficient of the union variable will be subjected to a two-tailed test of significance because two competing hypotheses have been implied.

Employment was chosen as the measurement base for the geographical dispersion index. The proposition to be tested is whether greater locational dispersion favorably or unfavorably affects supply conditions in the business political influence market. Since it is the reaction of voters which is predicted to govern the extent of counter-influence as a result of more or less locational concentration, industry employment across states appears to be an appropriate measurement base. Production costs will rise or fall with increases in geographical dispersion as measured by employment depending upon the extent to which counter-influence and transactions costs change. The a priori hypothesis accepted here predicts that greater dispersion will result in greater access to political influence. This implies that increasing geographical dispersion is expected to effectuate a reduction in transactions costs which will overwhelm any increase in counter-influence, *ceteris paribus*.

Following the suggestion of Siegfried,³³ a Herfindahl-Herschman index is used to calculate the extent of geographical dispersion. It is:

$$GD = \sum_{i=1}^{51} \left(\frac{\text{Employment in state}_i \text{ in industry}_n}{\sum_{i=1}^{51} \text{Employment in state}_i \text{ in industry}_n} \right)^2 .$$

The i's represent the 50 different states and The District of Columbia and the n's represent SIC three-digit industries.

The data were compiled from The U.S. Bureau of the Census' 1977 Census of Manufacturers, Mining, Retail and Construction for three-digit SIC industries.³⁴ Once calculated, the geographical dispersion index was converted to the SOI industry classification scheme through the use of weighted averages. The weights were based on industry employment and were recorded from the same source.

Note that the value of the geographical dispersion index will fall as the number of states with employees in the industry rises. Conversely, it will increase as concentration increases. In summary, greater locational dispersion will be reflected in a smaller value for

³³John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence," p. 212.

³⁴Bureau of the Census, 1977 Census of Manufacturers III, U.S. Department of Commerce, U.S. Government Printing Office, August, 1981. (Hereafter cited as 1977 Census of Manufacturers), Bureau of the Census, 1977 Census of Retail Trade, Department of Commerce, U.S. Government Printing Office, November 1980, II. (Hereafter cited as 1977 Census of Retail Trade), and Bureau of the Census, 1977 Census of Construction Industries, Department of Commerce, July 1981. (Hereafter cited as 1977 Census of Construction Industries.)

the index. Given the theory favored here, a positive sign on the coefficient is predicted. The coefficient of this variable will be subjected to a two-tailed test for significance given that two alternative hypotheses have been offered.

The industry size variable is measured as the number of employees in each SOI industry in 1977. The effects of unionization and geographical dispersion upon production costs and political influence productivity arise from the counter-influence hypothesis. The affects of industry size are presumed to arise in the same manner. The choice of employment as the base from which to measure industry size will further facilitate the testing of this hypothesis.

The data for the industry size variable were collected from four census sources.³⁵ This variable was then converted to satisfy the SOI industry classification scheme by employing weighted averages. The predicted sign in both equations is negative.

The concentration variable is the estimated four-firm concentration ratio in each SOI industry in the sample. Due to the fact that the theory is being tested at the national level, the concentration ratios are uncorrected for regional markets.³⁶ Correction in the manner of

³⁵Bureau of the Census, 1979 Census of Manufacturers, 1977 Census of Mineral Industries, 1977 Census of Retail Trade, 1977 Census of Construction Industries.

³⁶In his study, Russel Pittman concluded essentially the same thing regarding the correction of concentration ratios. See "Market Structure and Campaign Contribution," Public Choice XXXI (Fall, 1977), p. 45.

Weiss would defeat the purpose at hand since we wish to test the "free-rider" hypothesis at the national, not the local or state level.³⁷

The ratios for the manufacturing retailing and construction industries were taken from Census Bureau data.³⁸ The ratios for mining industries were taken from Enterprise Statistics.³⁹ These ratios were converted to the SOI industry classification scheme in the manner described for the other variables. Industry employment was used as the weight. Thus, except for mining, the concentration ratio for SOI industries is measured as a weighted average of the percent of sales in 1977 accounted for by the four leading firms in the three-digit industries comprising each SOI industry. In mining, the concentration ratios were converted from the Enterprise industry classification to the SOI scheme. Holding constant all relevant variables, it is expected that increases in concentration will result in a greater demand for political influence and therefore a negative sign on the coefficient of the concentration variable is predicted.

The regulation variable is a dummy which takes a value of one if the SOI industry is considered to be highly regulated and zero otherwise. The values of the regulation variable were assigned after consulting

³⁷Leonard W. Weiss, "Concentration and Labor Earnings," American Economic Review 56 no. 1 (March 1966): 96-117.

³⁸Bureau of the Census, 1977 Census of Manufacturers, 1977 Census of Retail Trade, 1977 Census of Construction Industries.

³⁹Bureau of the Census, 1977 Census of Mineral Industries.

Pittman's classification of regulated industries.⁴⁰ Table 6.1 lists those SOI industries which are considered to be highly regulated in this study. The table closely coincides with Pittman's classification of regulated industries with some minor adjustments.

It was hypothesized that a regulated industry would encounter favorable supply conditions and would enjoy higher productivity of the political influence input. Thus, a negative sign is predicted on this variable in both equations.

Three additional variables which have not yet been discussed were created and are employed in the empirical tests. The first of these, FRGI, is an interaction term calculated by multiplying the regulation dummy by the firm size variable for each industry. It was noted that a large firm which happened to be regulated might enjoy an advantage over smaller firms in the political influence market due to the large fixed costs which must be incurred to actively participate in the regulatory apparatus. The inclusion of this interaction term will allow this hypothesis to be tested while simultaneously determining if, as predicted, increasing firm size for unregulated industries will result in higher effective tax rates. In summary, it is hypothesized that increasing firm size negatively alters both the demand and supply of political influence unless the firm is regulated. The coefficient of the firm size regulation variable is expected to attain a negative sign.

⁴⁰Russell Pittman, "Market Structure and Campaign Contributions," Public Choice (Fall, 1977), p. 41.

Table 6.1

Regulated Industries

SOI Classification	Industry
1010	Iron Ores
1070	Copper, Lead and Zinc, Gold and Silver Ores
1330	Crude Petroleum, Natural Gas & Natural Gas Liquids
1380	Oil and Gas Field Services
1430	Dimensions, Crushed and Broken Stone; Sand and Gravel
1498	Other Nonmetallic Minerals, Except Fuels
2020	Dairy Products
2030	Preserved Fruits and Vegetables
2040	Grain Mill Products
2060	Sugar and Confectionary Products
2096	Other Food and Kindred Products
2625	Pulp, Paper and Board Mills
2699	Other Paper Products
2815	Industrial Chemicals, Plastics Materials & Synthetics
2830	Drugs
2850	Paints and Allied Products
2898	Agricultural and Other Chemical Products
2910	Petroleum Refining (Including Integrated)
2998	Petroleum and Coal Products, n.e.c.
3370	Ferrous Metal; Miscellaneous Primary Metal Products
3380	Nonferrous Metal Industries
3460	Metal Forgings and Stampings
3710	Motor Vehicles and Equipment

An additional interaction term was constructed to measure the effect of regulation on the strength of concentration. This variable is simply the SOI four-firm concentration ratio multiplied by the regulation dummy. The empirical models employing this variable will test the hypothesis that concentration will have a larger effect upon the demand for political influence when the industry is regulated compared to when it is not. The hypothesized sign is negative.

In some of the empirical experiments which follow, the profit rate of the industry is included in the demand equation because it has been contended that an industry's profit rate may influence the demand for political influence. Siegfried proposed two competing theories regarding industrial profit rates and political influence acquisition.⁴¹ First, he proposed that firms earning relatively high profits may choose to forego involvement in the political arena for the purpose of securing a reduction in their tax liabilities for fear of arousing attention which might result in even higher tax rates or perhaps regulation. Alternatively, Siegfried suggests that firms earning higher profit rates enjoy a greater amount of absolute dollar profits, *ceteris paribus*. Consequently, these industries may have an incentive to actively seek a tax rate reduction because they have more at stake.⁴² It is desirable that Siegfried's contentions be tested with the data gathered there.

⁴¹John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence," p. 20.

⁴²*Ibid.*

There is an additional consideration which leads to the inclusion of profit rates in some of the models. Victor Goldberg, among others, has suggested that successful acquisition of political influence is likely to occur only after some thresholds of expenditures is met. If this is correct, financial resources availability may be a determining factor in the acquisition of political influence.

The 1977 profit rate for each SOI industry is calculated directly from IRS data in Statistics of Income - 1977 Corporate Income Tax Returns.⁴³ The profit rate, PR, is defined as:

$$PR = \frac{\text{Receipts} - \text{Costs}}{\text{Assets}}$$

This study has not presented any theoretical basis upon which a prediction can be made regarding the sign on the coefficient of the profit rate variable. However, the contention that industries with higher profit rates have more to gain from a reduction in tax rates has more appeal and does not seem to contradict the Goldberg hypothesis. Both suggest that industries with higher profit rates will enjoy lower effective tax rates and thus, the hypothesized sign is negative.

In the usual way, the quantity of political influence demanded is a function, not only of the calculated variables mentioned, but the cost to the industry of acquiring the favor--the price. Similarly, the

⁴³Internal Revenue Service, Statistics of Income - 1977, Corporation Income Tax Returns, U.S. Government Printing Office, Washington, D.C., 1981.

supply of political favors is determined by production costs as well as the price the legislators may command. It is therefore necessary to control for price in the empirical models. The next question which arises is: What is a good proxy for the price of acquiring a unit of favorable tax treatment?

There is actually no direct way of measuring the price of acquiring a political favor and a proxy is what must be used. The actual costs of acquiring political influence include such things as expenditures on lobbying, legal as well as illegal campaign contributions or any other form of quid pro quos as well as the costs of preparing technical reports and papers explaining or rationalizing an industry's stance on issues relevant to it or the expenditures devoted to other types of grass-roots efforts. The actual quantity demanded is a function of the true level of expenditures necessary to acquire a unit of influence. Similarly, the quantity supplied is a function of the true level of pecuniary and non-pecuniary remuneration--that which is actually received.

It is not possible to calculate the true price of political influence. Recall that the quantity of influence is confined to a single form because of data limitations. For the same reason, the proxy for the price variable is likewise confined to legal campaign contributions made by corporate political action committees to legislative candidates. The measure of corporate expenditure to acquire favorable legislative treatment which is employed here is more narrow than would be desired. However, this data is more readily

available than lobbying data while measures of illegal expenditures or grass-roots efforts across industries are impossible to obtain.

The Federal Election Campaign Act of 1971 and the amendments to that Act in 1974 had the effect of greatly increasing the importance of political action committees (hereafter referred to as PACs) by business. The campaign finance laws of the 1970's amounted to attempts to control the level of corporate involvement in the political arena. The information stemming from the Watergate investigations painted a picture of a corporate controlled political environment.⁴⁴ The new law greatly limited individual campaign contributions to \$1000 per election and placed the cumulative to total \$25,000 per year.⁴⁵ At the same time these laws provided for strict disclosure of funds. Prior to the enactment of these laws, "money from business related sources could legally enter the electoral arena, almost undetected in almost unlimited amounts in the form of individual contributions by wealthy persons affiliated with corporations and other business organizations."⁴⁶ Thus, the federal election laws of the 1970's had the effect of drastically

⁴⁴Michael J. Malbin, "Of Mountains and Molehills: PACs, Campaigns, and Public Policy," in Parties, Interest Groups, and Campaign Finance Laws, Michael J. Malbin, ed., A Conference Sponsored by The American Enterprise Institute, Washington, D.C., 1980, p. 156.

⁴⁵For a brief explanation of the law see Federal Election Commission, The FEC and the Federal Campaign Finance Law, U.S. Government Printing Office, 1980.

⁴⁶Edwin M. Epstein, "Business and Labor Under the Federal Election Campaign Act of 1971," in Parties, Interest Groups and Campaign Finance Laws, Michael J. Malbin, ed., A Conference Sponsored by The American Enterprise Institute, Washington, D.C., 1980, p. 111.

increasing the importance of PACs as a vehicle for the channeling of campaign funds.⁴⁷

In light of the above observations, it is reasonable to employ campaign contributions by corporate political action committees to the 1976 national legislative elections as the variable to measure corporate expenditures for the purpose of acquiring political influence.⁴⁸

The Federal Election Commission Disclosure Series of 1977 lists campaign contributions by business PACs in the 1976 elections according to the name of the PAC and its corporate affiliation.⁴⁹ Participating in the 1976 campaign were 450 corporate-related PACs which reported spending \$5,803,415 during the period January 1, 1976 through December 31, 1976. Fourteen of the 450 PACs were not covered in the FEC study because the corporations with which they were affiliated were without capital stock.⁵⁰ The reported campaign expenditures for each PAC were recorded and identified with the affiliated corporation. Since these dollar amounts included contributions to the presidential campaign, it was

⁴⁷Ibid.

⁴⁸In the 1976 elections, national congressional candidates received 20 percent or more than \$20 million of the total \$104.7 million in contributions received from nonparty committees. Approximately 25 percent of the \$20 million originated from business PACs. See Federal Election Commission, 1976 and 1977 Federal Election Commission Annual Reports, Washington, D.C., 1980.

⁴⁹Federal Election Commission, FEC Disclosure Series, No. 8: Corporate-Related Political Action Committees Receipts and Expenditures, 1976 Campaign, Washington, D.C., September 1977.

⁵⁰Ibid.

necessary to adjust the dollar figures downward. Another Federal Election Commission document in the same series lists all contributions to candidates for the presidential election by business PACs during the period covered.⁵¹ The appropriate amounts were subtracted from the total level of federal contributions by business PACs previously recorded. The resulting amounts represent the total level of contributions to federal legislative elections by each business PAC.

Each corporate giver was then categorized into the three-digit SIC industry which represented the greatest source of company receipts. Standard and Poor's was consulted for the purpose of industrial classification of the companies.⁵² For each corporation, Standard and Poor's Corporation Records lists the industrial affiliation of companies in order of importance. This is the industry to which each corporation is assigned. The total PAC contributions in each three-digit SIC industry were then calculated. These figures were converted to the SOI classification scheme by summing all of the contributions of the detailed SIC industries which make up the broader SOI industries.

In the empirical models which follow, industry PAC contributions may be viewed as the level of industry expenditures devoted to acquiring favorable tax treatment. Some of the difficulties of this assumption have already been discussed. PAC contributions may be made to pursue

⁵¹Federal Election Commission, FEC Disclosure Series, No. 6, Washington, D.C., 1977.

⁵²Standard and Poor's, Corporation Records (New York, McGraw-Hill, 1978).

some other form of political influence and PAC contributions do not necessarily represent the total level of expenditures for the expressed purpose. The other difficulty which arises from employing contributions in lieu of information regarding price per unit is the interpretation of the resulting coefficient.

In most empirical market analyses one of the main objects is to estimate the elasticities of demand and supply. These studies are usually of a time-series nature in which variations in price over time and the accompanying changes in quantity are observed. The coefficient on price in the supply equation will normally be positive while in the demand equation the coefficient is expected to be negative, holding constant all other things which would normally be expected to be a major source of change in demand or supply. There is often a problem in attempting to estimate cross-sectional data in the same way. Describing the cross-sectional data problem, Milton Friedman notes that in order to construct an empirical demand curve, it is necessary that the supply conditions vary considerably among the observations. Since in most markets supply conditions are close to being identical for all consumers, construction is not possible.⁵³ This problem should not appear here because if the theory is correct, supply conditions will vary considerably among the observations in the sample.

The argument is similar in the empirical construction of the supply curve. In this study, it is contended that the supply conditions and

⁵³Milton Friedman, Price Theory: A Provisional Text (Chicago: Aldine Press, 1962), p. 35.

thus price differ among buyers. Likewise, the productivity of political influence and thus the demand conditions will vary for the producing legislature. Consequently, by the assumptions, a crucial requirement of the empirical estimation of the equations is fulfilled.

However, a degree of difficulty still exists regarding the interpretation of the coefficient of the PAC variable. If, in fact, price was presumed to be the same for all would-be purchasers of political influence, it would be logical to simply predict that a higher level of expenditures would be associated with lower effective tax rates. The coefficient on the PAC variable would be expected to be negative. However, this is not the case. The coefficient on the PAC variable may be interpreted as the "expenditure elasticity of demand."⁵⁴ While the data cannot yield direct information regarding the price elasticity of demand, it may be possible to make some general observations once the relationship between price elasticity and the calculated expenditure elasticity is recognized. The connection can be made in the following way.

Marginal revenue is defined as:

$$MR = \frac{\partial PQ}{\partial Q}.$$

The coefficient of the PAC variable as calculated is:

$$\frac{\partial PQ}{\partial Q} \cdot \frac{Q}{PQ}.$$

⁵⁴The basic models are estimated in double-log form so that the coefficients may be interpreted as elasticities. The rationale for the use of the double-log specification will be discussed subsequently.

Since:

$$MR = P(1 + \frac{1}{\eta})$$

where η represents the price elasticity of demand, it follows that the coefficient of PAC contributions is related to the price elasticity of demand in the following way:

$$\frac{\partial PQ}{\partial Q} \cdot \frac{Q}{PQ} = (P(1 + \frac{1}{\eta})) \frac{Q}{PQ}.$$

It is evident that the expenditure elasticity coefficient will be positive if demand is elastic and will be negative if demand is inelastic. Consequently, although the data is not easily lent to the calculation of the price elasticity of demand, it is nevertheless possible to make inferences regarding that elasticity.⁵⁵

Of course, the elasticity of supply is a useless concept unless the market is competitive.⁵⁶ The unique characteristics of the supply side of the market for political influence strongly suggest that it cannot be described as such. Not only is collusion possible, but it is necessary because political influence must be jointly supplied.

⁵⁵I found the interpretation of the PAC coefficient to be a very difficult matter. It is important to remember that the curve which is being fit consists of different equilibrium points, each of which is unique for every industry. However, the regression process should collapse each individual demand and each individual supply curve into one. Nevertheless, the accuracy of the coefficient of the expenditure and thus the price elasticity is not clear.

⁵⁶Milton Friedman, Price Theory: A Provisional Text (Chicago: Aldine Press, 1962), p. 138.

However, it is interesting to note that the model presented strongly suggests that legislative political influence is an increasing cost industry. An expansion of the supply of business political influence increases the costs associated with further output in the industry.

As a final point, consider the observations made by others which suggest that political influence pursuits may not only be geared toward improving one's position vis-a-vis others, but also may be directed toward warding off attempts by other groups to impose costs on oneself.⁵⁷ This possibility is certainly not precluded by the theory developed here. It has been contended that certain firm and industry characteristics may both negatively influence the supply of beneficial favors and make those favors a less reproductive input than would otherwise be the case. However, if these influences are stronger than formerly suggested, certain firms and industries may have to direct their political influence efforts to the task of preserving rather than improving upon their economic positions. In other words, greater expenditures might not result in an observable reduction in effective tax rates, but rather a maintenance of the status quo, or even worse from the viewpoint of the industry, a smaller increase in effective tax rates than would otherwise be the case.

⁵⁷See James M. Buchanan and Gordon Tullock, The Calculus of Consent (Ann Arbor: The University of Michigan Press, 1962) and H. Michael Mann and Karen McCormick, "Firm Attributes and the Propensity to Influence the Political System" in the Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, 300-313.

A change in effective tax rates may arise because of the efforts of the acquiring industry, or because of the passive or active behavior of others whose interests are contrary to those of the industry, or from the interaction of both. It is most likely to be the latter. To the extent that the measured exogenous variables pick up the essence of the variance in counter-influence, the latter and thus price are effectively being controlled in the experiments which follow. Realistically, however, it is unlikely that the data will pick up all such effects. Since the level of counter-influence is expected to be associated with higher effective tax rates and PAC contributions may be positively correlated with counter-influence, it may be that the coefficient of the PAC variable is actually less strong than the statistical results indicate. Likewise, since the price of substitute forms of political influence is not included in the equations, the PAC variable may be picking up these effects as well.

Table 6.2A shows the simple correlations between the exogenous variables. The correlations between PAC contributions and the exogenous variables are shown in Table 6.2B. All of the data which are employed in the empirical tests, with the exception of the interaction variables, are listed in the Appendix.

Information regarding the proper functional form of the empirical model can be derived by appealing to theoretical considerations. It is well known that if the exogenous variables are specified in an additive manner, the effect of each is assumed to be independent of the others. In light of the interactive relationship between most variables designed to measure industry structure, the additive specification

Table 6.2A

Simple Correlations Between Exogenous Variables for the Sample of 60
Statistics of Income Industries

	IND	UNION	GD	REG	FIRM	PROFIT RATE	CON	ASSETS
IND	1.000							
UNION	-.2738	1.000						
GD	-.2075	.1185	1.000					
REG	-.2519	.2496	.2403	1.000				
FIRM	-.0879	-.0116	.1078	.2630	1.000			
PROFIT RATE	.6042	-.4188	-.2970	-.3053	.2217	1.000		
CON	-.3196	.4391	.4609	.2807	.0256	-.3337	1.000	
ASSETS	-.5976	-.1269	-.2391	-.0112	.1333	-.0613	-.0727	1.000

TABLE 6.2B

Simple Correlation Between Exogenous Variables and
PAC Contributions for the Sample

	PAC
PAC	1.000
IND	-.0459
UNION	.2259
GD	.2071
REG	.2745
FIRM	.0415
PROFIT RATE	-.1505
CON	.3681

appears to be inappropriate.⁵⁸ Additionally, plots of the data lend support to the contention that a log-linear model is appropriate.⁵⁹

For the above mentioned reasons the following general multiplicative specification of the most basic demand and supply equations was adopted:

$$Q = a \cdot x_1^{b_1} \cdot x_2^{b_2} \cdot \dots \cdot x_n^{b_n} \cdot \epsilon,$$

where ϵ is a stochastic error term. Therefore, the model is intrinsically linear in that the equations are linear in the parameters and the logarithms of the variables.⁶⁰ It is assumed that the error term is multiplicative rather than additive. This assumption is made for simplicity since an additive error term negates the possibility of linear estimation.⁶¹

⁵⁸In the paper which I co-authored with Professor Tullock, we suggested that the relationship between firm size, industry size and industry concentration is intricately related such that a change in one would be accompanied by a change in either or both of the others. Specifically, we stated that firm size was an approximate interaction term between concentration and industry size. Richard Caves in a commentary presented at the same FTC conference, suggested that there is an identity associating firm size, industry size and concentration. In any case, the dependency implies that an additive specification is inappropriate. See Gordon Tullock and Cathleen Collidge, "Firm Size and Political Power," and Richard Caves, "Commentary," both in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, 43-71.

⁵⁹Damodar Gujarati, Basic Econometrics (New York: McGraw-Hill Book Company, 1971), p. 458.

⁶⁰Jan Kmenta, Elements of Econometrics (New York: MacMillan Publishing Company, 1971), p. 458.

⁶¹Robert S. Pindyck and Daniel L. Rubinfeld, Econometric Models and Economic Forecasts (New York: McGraw-Hill Book Company, 1981) p. 109.

The multiplicative equation may then be transformed by taking the natural logarithms of the endogenous and exogenous variables in the equation to obtain:

$$\ln Q = a^* + b_1 \ln X_1 + b_2 \ln X_2 + \dots + b_n \ln X_n + \epsilon.$$

The most basic model to be estimated, excluding any interaction terms and the profit rate variable, is represented by the following three equations:

$$\begin{aligned} \ln Q_S = a^* + b_1 \text{REG} + b_2 \ln \text{FIRM} + b_3 \ln \text{IND} + b_4 \ln \text{GD} + b_5 \ln \text{UNION} \\ + b_6 \ln \text{PAC} + b_7 \ln \text{ASSETS} + \epsilon, \end{aligned}$$

$$\begin{aligned} \ln Q = c^* + d_1 \text{REG} + d_2 \ln \text{FIRM} + d_3 \ln \text{IND} + d_4 \ln \text{UNION} + d_5 \ln \text{CON} \\ + d_6 \ln \text{PAC} + d_7 \ln \text{ASSETS} + \epsilon, \end{aligned}$$

and

$$\ln Q_S = \ln Q.$$

Substituting the equality condition into the supply equation, the model is reduced to the following two equations:

$$\begin{aligned} \ln Q = a^* + b_1 \text{REG} + b_2 \ln \text{FIRM} + b_3 \ln \text{IND} + b_4 \ln \text{GD} + b_5 \ln \text{UNION} \\ + b_6 \ln \text{PAC} + b_7 \ln \text{ASSETS} + \epsilon, \end{aligned}$$

and

$$\begin{aligned} \ln Q = c^* + d_1 \text{REG} + d_2 \ln \text{FIRM} + d_3 \ln \text{IND} + d_4 \ln \text{UNION} + d_5 \ln \text{CON} \\ + d_6 \ln \text{PAC} + d_7 \ln \text{ASSETS} + \epsilon. \end{aligned}$$

Note that the bivariate regulation variable is entered additively. Also, given the unusual interpretation of the PAC coefficient, and the fact that the dominant interest is with quantities, the effective tax rate is the normalized variable in all equations.

It is evident from the model specification and the discussion thus far that the equations must be solved simultaneously.⁶² The type of empirical model employed in any study usually depends upon the problem to be investigated as well as data availability. It is the purpose of this study to see how variations in firm size and market structure across firms or industries affect both the long-run demand and the supply of political influence as predicted by the model. Cross-section estimates such as that employed here are usually interpreted to represent the long-run behavior between the exogenous and endogenous variables. Yet, simultaneity cannot be assumed away since the long-run elasticities calculated from the model are the outcome of the forces of demand and supply.⁶³

It is assumed that PAC expenditures reflect the most current price of acquiring a reduction in tax rates. Further, it is assumed that all adjustments of supply in response to campaign donations take place before the end of 1977, the moment in time when all of the other variables are measured. If these assumptions are correct, then the results of ordinary least squares should be biased when campaign

⁶²The simultaneous nature of the relationship was brought to my attention by Professor Joseph Reid.

⁶³Henry J. Cassidy, Using Econometrics: A Beginner's Guide (Reston, Virginia: Reston Publishing Company, 1981), p. 217.

donations are included in the equations. This is because PAC expenditures are expected to influence the equilibrium effective tax rate and the latter to influence the level of PAC expenditures. Consequently, ordinary least squares is inappropriate since the expenditure variable on the righthand side of the equation is theoretically determined to be endogenous and will therefore be correlated with the error term.⁶⁴

All other variables are considered to be exogenously determined. It should be briefly noted that it has been argued by Mann and McCormick that the direction of causation has not really been determined.⁶⁵ The authors argue that many of the structural variables to be included in the equations such as firm and industry size and concentration may be the result of favorable treatment in the political sphere. This is a possibility that should not be ignored. However, since empirical evaluation is incapable of demonstrating causality, no proof can be offered regarding the direction of the effects. Yet, the chosen empirical specification implies causation from the exogenous to the endogenous variables. It is believed that there exists substantial theoretical justification for the specification chosen here.

The political influence market displays some peculiar characteristics not yet discussed which distinguish it from markets as traditionally

⁶⁴Ibid, p. 220-221.

⁶⁵H. Michael Mann and Karen McCormick, "Firm Attributes and the Propensity to Influence the Political System," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, p. 303.

conceived. The markets for most commodities exhibit perfect or nearly perfect symmetry between payment and the receipt of goods. When such symmetry is lacking, uncertainty will significantly interfere with the exchange process. The resultant transactions costs can be at least partially eliminated when it is possible to agree to an enforceable contract governing all of the terms of the exchange. This is clearly not possible in the market for legislative political influence, most obviously because the illegal status of such contracts makes them unenforceable. The nature of repetitive dealings should eliminate much of the uncertainty, however. The magnitude of campaign contributions positively influences the probability of acquiring a political favor but it in no way guarantees success. A payment may be made to eager politicians to ensure their support and therefore increase the firm's probability of success in acquiring special interest legislation. However, the timing between the receipt of campaign contributions and the attainment of the political goal may not be easily traceable. A favor of a given size may not be attained until several, perhaps many legislative sessions have passed. Or, a given reduction in effective tax rates may be accomplished by a series of sequential tax reductions.

It is also possible that legislative support on issues important to business is given with the implicit understanding that the beneficiaries will offer financial support in future campaigns. In other words, benefits received may precede payments.⁶⁶ This latter possibility

⁶⁶It is interesting to consider the failure of the Equal Rights Amendment in Illinois in light of this observation. Passage of the ERA

presents no problem for the simultaneity assumption of the model. However, the suggestion that the receipt of benefits may follow the receipt of campaign expenditures only after a long period of time has passed throws shadow on the assumption of simultaneity. The peculiar technology which governs the production of political influence leads to the possibility that business PAC contributions in 1976 may be irrelevant to the explanation of effective tax rates in 1977. It would then follow that what was observed in this 1977 data set is the product of a slow adjustment to a long-run equilibrium situation in which the effective tax rates have adjusted to past gifts (prior to the 1976 election) after controlling for relevant factors. In this case, enough time would not have passed to allow adjustment to the more recent payments. Thus, to the extent that adjustments in the quantity supplied occur only after a long period of time has passed, the designation of the PAC variable as endogenous may be a misspecification. This is not the assumption accepted here, however. It was found that the inclusion of the PAC variable in the following models adds significant explanatory value. It is hoped that this suggest the simultaneity assumption is not incorrect.

in this state was considered to be essential to its success nationally. Proponents of the amendment, including the National Organization of Women followed a policy of contributing heavily to legislators who had previously voted against ERA, presumably in the hope of changing their stance in the second round of voting. However, these groups failed to reward those legislators who had last supported ERA and the amendment was defeated in the state legislature for the second time. The failure can perhaps be attributed to result from the fact that the women's groups actually lost the votes of many state legislators who had previously supported the ERA because they had not been rewarded for their past support. See Chicago Tribune, "The ERA Battle of Brankroll" (November 2, 1980).

Rather, it is assumed that the contributions of 1976 reflect either payments for past favors or payments to effectuate nearly immediate favorable legislative changes. Thus, this cross-sectional study may be viewed as revealing the long-run equilibrium situation for each industry. The coefficient of the PAC variable represents the elasticity of expenditures in 1976 with respect to the effective tax rate in 1977. The year 1977 was chosen because of the unique technological nature of political influence production just described.

Even if the assumption requiring that all adjustments take place before the period under study does not strictly hold, the long-run equilibrium interpretation may still be relevant. It may be that supply has not completely adjusted to campaign receipts and/or demand to the receipt of benefits. However, as long as the disequilibrium occurs across industries in a random fashion, no problems of interpretation should arise. It is likely that the data will show long-run equilibrium when comparing one industry with another from the sample data.⁶⁷

The method chosen for the estimation of the simultaneous equations is two stage least squares. This estimation procedure offers a means of obtaining a solution for over-identified equations. Many of the models involve over-identified equations so this technique is appropriate. In those models in which both equations are exactly identified, two stage least squares is used for consistency although it is recognized that this

⁶⁷See Henry J. Cassidy, Using Econometrics: A Beginner's Guide (Reston, Virginia: Reston Publishing Company, 1981), p. 81 and Edwin Kuh, Capital Stock Growth: A Micro-Econometric Approach (North Holland, 1963, pp. 182-188.

procedure has no advantage over indirect least squares when all equations are exactly identified.⁶⁸ Identification of the various equations was determined according to the order rule.⁶⁹

Another problem which should be considered before the results are presented is multicollinearity among the explanatory variables. This condition is characterized by "a lack of independence among the predetermined variables."⁷⁰ A problematical degree of multicollinearity suggests that the usual interpretation of the regression coefficients as representing the distinct and independent effect of a particular variable is not necessarily correct.⁷¹ In the words of James L. Murphy, "The separate estimate of each parameter depends on the separate estimates of the other parameters. If one coefficient is changed, all those associated with the collinear variable must change."⁷²

Multicollinearity is not an uncommon problem in empirical work, particularly in the realm of industrial organizational studies. This is

⁶⁸James L. Murphy, Introductory Econometrics (Homewood, Illinois: Richard D. Irwin, Inc., 1973), p. 466.

⁶⁹For a discussion of the order rule versus the rank condition see Teh-wei Hu, Econometrics (Baltimore: University Park Press, 1973), pp. 134-135. The order condition for identification is satisfied if the number of predetermined variables excluded from an equation is equal to or greater than one less than the number of endogenous variables in the equation. Hu notes that this is only a necessary and not a sufficient condition for identifiability. However, to determine if the rank condition is fulfilled requires the calculation of a reduced form matrix. Due to the tediousness of the task, Hu notes that the counting rule is more widely used than the rank condition.

⁷⁰James L. Murphy, Introductory Econometrics (Homewood, Illinois: Richard D. Irwin, 1973), p. 355.

⁷¹Ibid., p. 369.

⁷²Ibid.

evident when the previously mentioned interaction or identity relationship between firm size, industry size and concentration is recalled.⁷³ Usually, however, the estimated coefficients will be unbiased and efficient but their standard errors will tend to be much greater when multicollinearity is high than when it is not.⁷⁴

Unfortunately, there is no clear-cut way to deal with this problem. In many empirical studies one or more of the variables is dropped from the model if they are considered to be relatively unimportant to the theoretical model. This process will be followed in some of the empirical experiments which follow. In the cases in which this method of reducing multicollinearity is employed, the selection procedure will be discussed.

The final consideration concerns the possibility of measurement errors in the variables. The necessary conversion of the calculated variables to the SOI industrial classification is quite likely to result in some degree of measurement error. This is quite unfortunate, but it appears that nothing can be done to remedy the situation. In the future it may be possible to attempt to reduce any existing errors in the variables by "matching" the IRS and Census Bureau data. The Census Bureau's Link Project attempts to do just that but unfortunately the

⁷³Richard E. Caves, "Commentary" in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, p. 317.

⁷⁴James L. Murphy, Introductory Econometrics (Homewood, Illinois: Richard D. Irwin, Inc., 1973), p. 371.

publication linking 1977 data will not be ready for publication for some time to come.⁷⁵

IV. Empirical Results

The thrust of this study has been the identification and explanation of the forces which are likely to govern demand and supply behavior in the business political influence market. It is the behavioral equations which will shed light on the hypothesis which have been developed. The complete results of the alternative models using two stage least squares is reported in Table 6.3

The dependent variable in all equations is the logarithm of the calculated effective tax rates. Generally, no overall measures of goodness of fit are presented in empirical studies employing two stage least squares. Note that this convention has been followed here. The t-statistics are reported and appear directly below the coefficients in parentheses. The standard errors of the coefficients have not been included in order to conserve space. Of course, these may be computed directly from the reported coefficients and t-statistics. The t-statistics produced by estimates using this technique do not necessarily have the exact distribution that is considered appropriate for hypothesis testing.⁷⁶ However, it has been shown that in the small sample case, t-statistics may be approximately correct.⁷⁷ Additionally, the accuracy

⁷⁵Refer to footnote no. 26.

⁷⁶Henry J. Cassidy, Using Econometrics: A Beginner's Guide (Reston, Virginia: Reston Publishing Company, 1981), p. 230.

⁷⁷See D.H. Richardson and R.J. Rohn, "Distribution of a Structural t-Statistic for the Case of Two Included Endogenous Variables," Journal of the American Statistical Association 66 no. 334 (June 1971) pp 375-82.

Table 6.3

Two Stage Least Squares

Dependent Variable = Log Effective Tax Rate

	Model 1		Model 2		Model 3	
	Supply	Demand	Supply	Demand	Supply	Demand
REG	5.2981 (3.761)***	5.1702 (2.25)**	-.3670 (-1.21)	.8543 (.51)	-1.6456 (-4.04)***	.1927 (.46)
FIRM	.1649 (2.43)***	.1553 (1.31)*	-.0411 (-.83)	-.1315 (-2.79)***	-.0101 (-.23)	-.1264 (-2.47)***
INDUSTRY	.0131 (.09)		-.1992 (-1.07)	-.3747 (-1.81)**	.6034 (2.38)**	-.3742 (-1.76)**
UNION	-.3154 (-2.01)**	-.2549 (-1.98)*	-.1346 (-.67)	.0356 (.22)	-.9569 (-3.60)***	.0151 (.07)
GD	-.0494 (-1.07)		.0158 (.29)		-.1885 (-2.73)**	
PROFIT RATE						
CONCENTRATION		-.0481 (-.155)		.7417 (3.50)***		.7163 (2.73)***
FRGI	-.3674 (-4.00)***	-.3586 (-2.30)**				
RC				-.1818 (-.34)		
ASSETS	-.5294 (-1.45)**	-.4179 (-1.50)*	-.0171 (-.03)	.8920 (1.40)*	-2.5370 (-3.36)***	.8755 (1.27)
PAC	.7892 (2.66)**	.7020 (2.17)**	.3564 (.84)	-.5284 (-.90)	2.4975 (3.94)***	-.5155 (-.82)
INTERCEPT	-3.0987	-3.6736	-1.8956	-7.6292	10.1902	-7.9154

Table 6.3 (Continued)

	Model 4		Model 5		Model 6	
	Supply	Demand	Supply	Demand	Supply	Demand
REG	5.3013 (3.86)***	4.2447 (1.65)*	-.4052 (-1.42)*	1.0764 (.67)	-1.3615 (-3.87)***	.0752 (.20)
FIRM	.1676 (2.50)***	.0941 (.67)	-.0902 (-.82)	-.1442 (-2.91)***	-.0170 (-.38)	-.1368 (-2.54)**
INDUSTRY	.0239 (.17)		-.1758 (-1.00)	-.2543 (-1.43)*	.4249 (1.94)**	-.2511 (-1.36)*
UNION	-.3260 (-2.13)**	-.2392 (-1.85)*	-.1592 (-.84)	-.0314 (-.21)	-.7742 (-3.36)***	-.0638 (-.35)
GD	-.0522 (-1.16)		.0097 (.19)		-.1431 (-2.35)*	
PROFIT RATE		-.1789 (-.88)		-.2463 (-1.26)		-.2511 (-1.28)***
CONCENTRATION		.0963 (.27)		.7173 (3.52)***		.6782 (2.27)***
FRGI	-.3718 (-4.11)***	.2939 (-1.67)*				
RC				-.2745 (-.54)		
ASSETS	-.5613 (-1.60)*	-.2724 (-.81)	-.0924 (-.20)	.6586 (1.19)	-1.9772 (-3.11)***	.6296 (1.04)
PAC	.8162 (2.86)***	.5201 (1.31)*	.4204 (1.09)	-.3659 (.70)	2.0213 (3.79)***	-.3431 (.61)
INTERCEPT	2.4889	-4.0177	-1.5346	-6.5908	-7.5051	-6.2451

N = 60 in all equations of all models.

***Significant at the 99 percent level of confidence using the appropriate test and degrees of freedom.

**Significant at the 95 percent level of confidence using the appropriate test and degrees of freedom.

*Significant at the 95 percent level of confidence using the appropriate test and degrees of freedom.

of the t-statistics increases as the number of observations becomes greater.⁷⁸ The sample size of sixty should generate t-statistics which quite closely approximate the t-distribution that is appropriate for the testing of hypotheses.

For the purpose of clarity, it will be helpful to view the statistical demand and supply equations separately. Consider first, the demand equations beginning with Model 1. It was hypothesized that the effects of firm size upon the demand and supply of political influence may depend upon whether the corporate unit is regulated. For this reason, Model 1 and its counterpart, Model 4 are considered to be the preferred models because each includes an interaction term which allows for the separation of these effects.

The expressed purpose is to test not only the effects of firm size on the demand for political influence, but also the effect of regulation on the strength of the firm size variable. It appears that the inclusion of the interaction term, FRGI, is a serious source of the multicollinearity in the demand equations of both models. In order to deal with the multicollinearity problem, the industry size variable was excluded from the demand equations. It is hoped that this does not result in a serious specification error. Industry size is of less theoretical importance than any of the exogenous variables included in the basic demand equation. Recall that it is considered necessary to control for industry size in order to determine the effects of firm size.

⁷⁸Henry J. Cassidy, Using Econometrics: A Beginner's Guide (Reston, Virginia: Reston Publishing Company, 1981), p. 230.

From this perspective, the calculated industry size variable is a convenient one to drop because assets effectively act as a control variable for the same purpose. Assets and employment are alternative measures of industry size. As expected, these variables are highly correlated and it is expected that any of the effects of employment size on the effective tax rate will be picked up by the asset variable. The exclusion of the measured industry size variable noticeably reduced the multicollinearity.

It was hypothesized that regulation will positively affect the level of political influence while firm size will negatively affect it. The interaction term, FRGI, which is simply the logarithm of the firm size variable multiplied by the regulation dummy, measures the effect of regulation on the strength of the visibility factor. The coefficient of FRGI indicated by how much the firm size elasticity coefficient of regulated industries differs from the firm size elasticity coefficient of non-regulated industries. The simple firm size coefficient then measures the effects of firm size on the demand for lower effective tax rates for unregulated industries. This coefficient suggests that a one percent increase in firm size among unregulated industries can be expected to result in a .16 percent increase in effective tax rates which may alternatively be considered to be a reduction in the demand for favorable tax treatment. The FRGI coefficient indicates that a one percent increase in firm size among regulated industries is associated with a .36 percent decrease in effective tax rates.

These results seem to indicate that any negative effects of increasing visibility on the productivity of political influence are

overwhelmed by the reduction in bounded rationality which accompanies regulation. In summary, regulation appears to overcome the impeding effects of increasing firm size. Since the coefficient of FRGI measures the differential effect, the summation of the FRGI and firm size coefficients will yield an estimate of the full effect of regulation and firm size. In the manner suggested by Gujarati, we may separate the equation, writing two new equations, one for unregulated and one for regulated industries.⁷⁹ It is necessary to consider only the regulation and firm size variables since the coefficients of the other variables will not differ among regulated and unregulated industries in this specification. The estimated coefficients are given in Table 6.4A. The simple firm size coefficient is significant at the 90 percent confidence level, while the coefficient of FRGI is significant at the 95 percent level of confidence.

Consider Model 4 which is identical to Model 1 except that profit rate is included as an exogenous variable. Rewriting the coefficients, the constant and firm size coefficient for unregulated and regulated industries are respectively obtained and listed in Table 6.4B.

The results of the two models are not vastly different. However, in Model 4 the coefficient of the simple firm size variable is not significantly different from zero while the coefficient of FRGI is significant at the 90 percent level of confidence. Also note that the

⁷⁹Damodar Gujarati, "Use of Dummy Variables in Testing for Equality Between Sets of Coefficients in Linear Regression: A Generalization," American Statistician 24 no. 5 (December, 1970), pp. 18-22.

TABLE 6.4A

Demand Equation - Model 1

	Unregulated Industries	Regulated Industries
Constant	-3.6736	1.4966
Firm Size	.1553	-.2033

TABLE 6.4B

Demand Equation - Model 4

	Unregulated Industries	Regulated Industries
Constant	-4.0177	.0370
Firm Size	.0941	-.1998

TABLE 6.4C

Supply Equation - Model 1

	Unregulated Industries	Regulated Industries
Constant	-3.0987	2.1494
Firm Size	.1649	-.2025

TABLE 6.4D

Supply Equation - Model 1

	Unregulated Industries	Regulated Industries
Constant	-2.4889	2.8124
Firm Size	.1676	-.2042

regulation dummy is positive in all six models. However, the differential intercept coefficient is of a much smaller magnitude and is never statistically different from zero unless the FRGI interaction term is included. It is possible for this to arise from the fact that the simple correlation between the regulation dummy and FRGI is .98.

Next, observe Model 2. The purpose of this model is to test the hypothesis that the predicted effects of concentration are more strong when the industry is regulated than when it is not. Due to potential multicollinearity problems, it was considered unwise to include both interaction terms in the same regressions. Therefore, in Model 2, there is no firm regulation interaction term. The coefficient of the firm size variable is negative and significant, indicating a one percent increase in firm size is associated with a .13 percent reduction in the effective tax rate. Model 3 which includes no interaction terms yields similar results. Models 5 and 6 are identical to Models 2 and 3, respectively, except that the former include the profit rate as an exogenous variable. Observe that the coefficient and the firm size variable is of approximately the same magnitude and equally significant in these models.

There is still a question about the explanatory value of the theory relating firm size and the demand for political influence developed in this study. The answer to that question rests upon which empirical specification of the demand equation is considered superior. There does appear to be theoretical justification for the belief that the slope as well as the intercept will differ between regulated and unregulated industries. This appears to have been borne out by the data lending

support to the contention that Models 1 and 4 are closest to the "true" specification. Consequently, it can be concluded that the theory developed in this study cannot be rejected by the data. If this reasoning is correct, then policy aimed at reducing potential manipulation of the legislature by the corporate sector may be better aimed at reducing regulations as opposed to reducing firm size.

In all of the demand equations in which industry size is included, the sign is negative as predicted and is significant at the 90 or 95 percent levels. The union variable attains a negative sign in all models except 2 and 3. A two-tailed test is appropriate for the coefficient of the union variable in the demand equations because two alternative hypotheses were offered. The preferred models, 1 and 4, suggest that the greater unionization-greater durability argument outweighs any loss in benefits associated with the potential redistribution which might be expected to accompany unionization. While the coefficient in these two models is significant at the 90 percent confidence level, it is insignificant in all other cases.

The "free-rider" hypothesis strongly indicates that greater concentration should be associated with a greater demand for lower effective tax rates. The statistical results strongly suggest otherwise. In five of the six models, greater concentration is associated with higher effective tax rates and the coefficients are significant at the 99 percent level in four instances. In models 2 and 5, an interaction term, RC was included to test the hypothesis that the strength of the concentration variable might depend upon whether or not the industry was

regulated. Pittman tested a similar, although not identical hypothesis.⁸⁰ He demonstrated that concentrated regulated industries made significantly greater campaign contributions than unconcentrated firms. The results here suggest that concentrated, unregulated industries face higher tax rates than their unconcentrated counterparts. Further, the sign on the coefficient of the RC interaction term indicates that a one percent increase in concentration is associated with an effective tax rate reduction between .18 and .27 percent. However, this result is not significant at any level. No attempt is made to rewrite the equations in Models 2 and 5. This is because the coefficient is insignificant in both of these models and the magnitude and significance of the simple concentration coefficient does not appear to change when the RC term is omitted.

The sign of the profit rate variable in Models 4, 5 and 6 supports the a priori hypothesis. Industries with higher profit rates have more to gain from lower effective tax rates. Recall that the negative sign was predicted also because a higher rate of profits would tend to suggest a greater source of internally generated funds which could be employed for investment in political influence. The relevance of these findings is not convincing, however, since the coefficient is never significant at any acceptable level of confidence. Assets are included as a control variable and no theoretical significance was offered. The coefficient displays the predicted negative sign in four of the six models.

⁸⁰Russell Pittman, "Market Structure and Campaign Contributions," Public Choice XXXI (Fall, 1977), pp. 37-52.

The elasticity of expenditures with respect to effective tax rates is negative in four of the six models but never significant when the sign takes a negative value. The PAC variable is positive and significant in Models 1 and 4, the preferred models. The coefficients in these cases suggest that a one percent increase in PAC is associated with either a .52 or .70 percent increase in the effective tax rate. This indicates that a reduction in quantity is associated with an increase in marginal revenue. This may imply that the price elasticity of demand is inelastic in the range observed. Extreme caution must be exercised in the interpretation of this coefficient, however, for all of the reasons mentioned above.

In summary, in Models 1 and 4, the firm size, profit rate, union, FRGI and assets variables all attain the predicted sign. The RC interaction term is never significant lending no support for the contention that an industry's regulatory status may enhance the effects of concentration. Although the intercept for regulated industries is positive and this result was not predicted, there appears to be an advantage for larger firms who are regulated. When industry size is included, the sign is negative as predicted.

Now consider the supply equations beginning with the effects of firm size on the supply of favorable tax treatment. The results of the preferred Models 1 and 4 are consistent with the a priori predictions. The regression results are again rewritten to form two equations for unregulated and regulated industries. The new coefficients are listed in Tables 6.4C and 6.4D relating to Models 1 and 4, respectively.

An increase in firm size among unregulated industries is associated with increases in the effective tax rate, while for regulated industries the opposite is true. In both cases, the regulation dummy, the firm size variable and the interaction term are highly significant. The models which exclude FRGI show a negative sign on the firm size coefficient demonstrating that increases in firm size are associated with decreases in the effective tax rate, but this sign is never significant.

The industry size variable is positive in Models 1 and 4 indicating greater industry employment is associated with increases in the effective tax rate which is contrary to the hypothesis offered here. The coefficient is not significantly different from zero, however. In Models 3 and 6, the coefficient is positive and significant at the 95 percent level of confidence. The coefficient attains a negative sign when the RC interaction term is included but it is insignificant. There appears to be insufficient support to accept the hypothesis that industry size, as measured by employment will effect the costs of producing political influence.

Greater unionization appears to favorably enhance the supply conditions of political influence. The sign is negative and significant in preferred Models 1 and 4 as predicted. This is also true in two of the other four models giving further support to these results.

It was predicted that greater geographical dispersion would be likely to result in lower effective tax rates although another hypothesis was offered. Employing a two-tail significance test, the

coefficient of the geographical dispersion index is significant in only the two models containing no interaction terms and the sign is negative. These results imply that greater geographical concentration is associated with either a .18 or .14 percent reduction in the effective tax rate. None of the other models support these results, however. Note that since one of the alternative hypotheses was rejected on an a priori basis it would not be incorrect to subject the coefficient of this variable to a less rigorous one-tail test. When this is done the conclusions regarding the insignificance of the coefficients in the other models does not change, however. This is interpreted to mean that there is no consistent relationship between the level of effective tax rates and geographical dispersion.

Finally, the coefficient of the assets variable is negative as expected in the supply equations of all six models. The PAC coefficient is positive and significant in Models 1 and 4. This is true of all of the models except for those employing the RC interaction term.

It is interesting to briefly compare the results of this study with other empirical work. Siegfried found that the increases in firm size were accompanied by decreases in the deviation of the effective tax rate from the norm although this amounted to less than one-tenth of one percent.⁸¹ Mann and McCormick found that large firms spent

⁸¹John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence From the Federal Corporation Income Tax Program," (Ph.D. dissertation, University of Wisconsin, 1972).

proportionately less than small firms on lobbying in the state of California.⁸² Cynthia Glassman in a study of state-wide banking power found that firm size and political power were inversely related.⁸³ The results are clearly contradictory. While this study does not offer conclusive evidence regarding the firm size-political influence hypothesis, it does appear to offer an improvement over past approaches. First, to my knowledge, no attempt has ever been made to empirically investigate the effects of regulation upon the strength of firm size in the acquisition of political influence. The simple large firm size--greater political influence hypothesis is exactly that--too simple. On the basis of the theory presented here large firm size cannot be assumed to be accompanied by greater political influence. There are other factors, regulation being only one, which can detract from or enhance the hypothesized effect of increasing firm size. Thus, it is not firm size per se which gives an advantage in the political marketplace, but some other attributes, the effects of which may be amplified when accompanied by increasing firm size.

This also appears to be the first attempt to discern the separate behavioral effects of demand and supply in the political influence

⁸²H. Michael Mann and Karen McCormick, "Firm Attributes and the Propensity to Influence The Political System" in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, pp. 300-313.

⁸³Cynthia Glassman, "The Impact of Banks' Statewide Economic Power on Their Political Power: An Empirical Analysis" (unpublished, Federal Reserve Board, Washington, D.C., 1979).

market. The results as interpreted here suggest that increasing firm size by itself is an impeding factors on both sides of this market.

Siegfried found industry size to be associated in no definite way with political influence.⁸⁴ The conclusions reached here are consistent with Siegfried's findings.⁸⁵ Generally speaking, the coefficient of the geographical dispersion index has been found to be negative but overall insignificant in this study. The negative sign indicates that greater geographical dispersion can be expected to be associated with higher effective tax rates. The sign is consistent with Siegfried's findings although his results are not consistently significant either. To the contrary, Pincus' study of the 1824 tariff structure suggested that geographical dispersion made for a more favorable supply of tariff duties.⁸⁶

Industry profit rate and effective tax rates were found to be unrelated in this study although observing only the sign, a negative relationship is suggested. This is in contrast to the study by Siegfried in which he found statistical support for his "higher-profits-more-to-gain" hypothesis.⁸⁷

⁸⁴John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence."

⁸⁵Ibid.

⁸⁶J.J. Pincus, "Pressure Group and the Patterns of Tariffs," Journal of Political Economy 83 no. 4 (August, 1975), pp. 757-778.

⁸⁷John J. Siegfried, "The Relationship Between Economic Structure and The Effect of Political Influence: Empirical Evidence from the Federal Corporation Income Tax Program" (Ph.D Dissertation, University of Wisconsin, 1972), p. 265.

While the effects of concentration upon effective tax rates are surprising at a theoretical level, the results do not contradict other findings. Siegfried found concentration and political influence to be negatively related.⁸⁸ Also, Charles C. Cox discovered that price controls pushed prices down further in industries which were concentrated compared to the unconcentrated case.⁸⁹ Yet, Pittman, in his study of lobbying expenditures found that highly concentrated industries contributed more than unconcentrated industries.⁹⁰ In a paper mentioned earlier, we suggested that one possible explanation is that concentrated industries may focus their efforts in the anti-trust arena, foresaking investment in other forms of political influence.⁹¹ This may very well be true and may explain the relatively weak demand for lower effective tax rates.

⁸⁸Ibid.

⁸⁹Charles C. Cox, "The Enforcement of Public Price Controls" (unpublished, Texas A&M, September, 1979).

⁹⁰Russell Pittman, "Market Structure and Campaign Contributions," Public Choice XXXI (Fall, 1977), pp. 37-52.

⁹¹Gordon Tullock and Cathleen Coolidge, "Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980, p. 62.

CHAPTER 7

CONCLUSIONS

The theory which is usually offered to explain why increases in firm size can be expected to be accompanied by disproportionate increases in political power rests upon two propositions. First, since wealth and firm size are normally positively related, larger firms are thought to have better access to political influence markets. Second, it is generally argued that since many political favors are collective in nature, groups composed of larger numbers of smaller firms will be unable to overcome organizational difficulties which is necessary in order to orchestrate acquisition.

The major task of this study was to develop a more solid conceptual framework from which predictions regarding the distribution of political influence among firms could be made. Employing a demand and supply approach, a model was developed to explain how the behavior of elected representatives and firms, the latter acting individually and as a group, simultaneously influence policy. We have shown that any relative advantage larger firms may have with respect to wealth, and organization may be offset by the relatively unfavorable supply and productivity conditions which large firms face. Neither economies or diseconomies appear to be associated with firm size in the legislative political influence market.

The model as well as the empirical results suggest that it is not increasing firm size, in and of itself, which is the source of the acquisition and maintenance of a disproportionate amount of political power. Rather, it is the presence of other attributes which when accompanied by increases in firm size appear to form the basis for empirical observations such as Siegfried's.¹ The observations we have made regarding the effects of regulatory status on the strength of the firm size factor strongly suggest that the failure to go beyond the usual wealth and "free-rider" considerations may be a source of confusion.

We have shown that increasing firm size has no discernable effect upon political power in industries which are unregulated. In those industries which were classified as highly regulated, increasing firm size appears to be an advantage in the legislative political influence market.

It is hoped that this modest attempt to uncover the relevant factors determining the cost of producing political influence and especially the productivity of that influence is a step in the right direction. It is encouraging to note that the results of the effort to empirically test the model do not suggest that it be rejected. The findings are by no means conclusive, but they do lend support to the studies of others who find no consistent relationship between the size

¹John J. Siegfried, "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence from the Federal Corporation Income Tax Program" (Ph.D. dissertation, University of Wisconsin, 1972).

of an economic unit and either policy outcomes or the level of political activity.²

It appears that any attempt to constrain the growth of firms on the grounds that failure to do so will result in undesirable accumulations of political power is unfounded. However, even if this were not true no such attempts should be made unless the costs of such legislation in terms of economic considerations are fully determined and found to exceed the benefits. The average size of corporate units has increased significantly during this century and this has occurred at a time during which the political impact of the corporate sector has also grown. Perhaps it is not surprising that the claims of a cause and effect relationship materialized. However, we have simultaneously observed a period of rapid governmental growth and this has been accompanied by an exponential growth in regulations. The concern with firm size as an important factor determining the distribution of political benefits appears to be misplaced. The implications of our observations suggest that policy may be better directed toward the curtailment of the growth of government as opposed to the growth of firms.

This should not be interpreted to mean that corporate activities in the political sphere are unworthy of concern. In fact, most corporate

²H. Michael Mann and Karen McCormick, "Firm Attributes and the Propensity to Influence the Political System" in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference Sponsored by The Bureau of Economics, Federal Trade Commission, July 1980, pp. 300-313; Cynthia A Glassman, "The Impact of Banks' Statewide Economic Power on Their Political Power: An Empirical Analysis" (unpublished, Federal Reserve Bank, 1979).

attempts to manipulate the political mechanism are probably undesirable from the perspective of the theory of "rent-seeking."³ "Rent-seeking" as defined by Gordon Tullock is "the activities of an individual who invests in something that will not actually improve productivity or will actually lower it, but that does raise his income because it gives him some special position or monopoly power."⁴ Clearly, the activity we have been studying, the expenditure of resources in the pursuit of favorable legislation is often rent-seeking behavior. This successful attainment of favorable regulations to control price or entry, etc. will most likely result in a net reduction of economic efficiency.⁵

Political influence pursuits may also produce changes which involve only redistribution and have no direct effects upon efficiency. Consider a reduction in business tax rates. This may actually alter incentives in such a way that productivity will increase. However, if in order to maintain the same level of revenues, the tax rates of others are raised there may be no net efficiency gains. However, as Tullock notes, the actual costs of this transfer include the value of the resources wasted

³Anne O. Krueger, "The Political Economy of the Rent-Seeking Society," American Economic Review LXIV no. 3 (June, 1974), pp. 291-303.

⁴Gordon Tullock, "Rent-Seeking as a Negative Sum Game," in Toward a Theory of the Rent-Seeking Society, James M. Buchanan, Robert D. Tollison, and Gordon Tullock, eds. (College Station: Texas A&M Press, 1980), p. 17.

⁵ It is possible to conceive of situations in which the change which is sought will produce efficiency-enhancing effects. However, this is not often the case.

to effectuate it.⁶ This is particularly true in light of the counter-influence which political activity arouses. In addition to any reduction in productive efficiency which may result directly from the change in rules, resources will be expended by both supporting and opposing forces. Those who find that their positions have been violated by the final governmental decision will experience a zero return on their investment.⁷ The social costs may be particularly high when we consider an observation by Tullock regarding the quantity of resources which are likely to be expended in rent-seeking activity.⁸ He demonstrates that the costs may range from an amount less than the value of the expected rent to an amount that is actually in excess of that value. It is clear that operating under uncertainty, the competitors in the political market place will bid up the price so that the successful participant will likely find that the costs of success nearly equal the value of the rents to be received.

It is not possible to make inferences regarding the level of reductions in net social product that can be attributable to rent-

⁶Gordon Tullock, "The Welfare Costs of Tariffs, Monopolies, and Theft," in Toward a Theory of the Rent-Seeking Society, James M. Buchanan, Robert D. Tollison, and Gordon Tullock, eds. (College Station: Texas A&M Press, 1980), p. 44.

⁷Gordon Tullock, "Rent-Seeking as a Negative Sum Game," in Toward a Theory of the Rent-Seeking Society, James M. Buchanan, Robert D. Tollison, and Gordon Tullock, eds. (College Station: Texas A&M Press, 1980), pp. 17-19.

⁸Gordon Tullock, "Efficient Rent-Seeking" in Toward a Theory of the Rent-Seeking Society, James M. Buchanan, Robert D. Tollison, and Gordon Tullock, eds. (College Station: Texas A&M Press, 1980), pp. 97-112.

seeking behavior in the political market place. Intuitively, it appears to be great. The elimination of this wasteful activity requires that the expected pay-off be reduced. The laws to regulate campaign finances of the 1970's were intended to do just that. As is often the case, however, the actual and intended effects of legislation are quite different. The major accomplishment was the re-channeling of campaign donations through corporate political action committees. In so far as the pursuit of self-interest does occur, a reduction in the wasteful political activities we have been studying calls for the narrowing of the avenues of business-government interaction. Unfortunately, it is not in the interest of those who make the policy to support such change.

BIBLIOGRAPHY

- Abrams, Burton A., "Legislative Profits and the Economic Theory of Representative Voting: An Empirical Investigation," Public Choice XXXI (Fall, 1977): 111-120.
- Alexander, Herbert E., Studies in Money and Politics, series nos. 1-7 (Princeton, New Jersey: Citizen's Research Foundation, 1970).
- Asch, Peter, Economic Theory and the Anti-Trust Dilemma (New York: Wiley, 1970).
- Bain, Joe S., Barriers to New Competition (Cambridge, Massachusetts: Harvard University Press, 1965).
- Bartlett, Randall, "An Economic Theory of Political Behavior: Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980: 282-299.
- _____, Economic Foundations of Political Power (New York: The Free Press, 1973).
- Baumol, William J., Business Behavior, Value and Growth (New York: Harcourt, Brace, and World, Inc., 1967).
- Bentley, Arthur F., The Process of Government (San Antonio, Texas: Principia Press, 1949).
- Buchanan, James M., The Demand and Supply of Public Goods (Chicago: Rand McNally and Company, 1968).
- Buchanan, James M. and Gordon Tullock, The Calculus of Consent (Ann Arbor: University of Michigan Press, 1962).
- Bush, Winston C., "Some Disturbing Aspects of Political Entrepreneurship," in Essays on Unorthodox Economic Strategies, Arthur T. Denzau and Robert J. Mackay, eds., (Blacksburg, Virginia: University Publications, 1976): 65-74.
- Cassidy, Henry J., Using Econometrics: A Beginner's Guide (Reston, Virginia: Reston Publishing Company, 1981).

Caves, Richard E., "Commentary," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C. July, 1980: 314-318.

_____, "Economic Models of Political Choice: Canada's Tariff Structure," Canadian Journal of Economics IX no. 2 (May, 1976): 278-300.

Chicago Tribune, "The ERA Battle of Bankrolls," (November 2, 1980).

Coase, Ronald, "The Nature of the Firm," Economica, New Series, 386 (1937): 386-405.

Coolidge, Cathleen and Gordon Tullock, "Firm Size and Political Power," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980: 43-71.

Cox, Charles C., "The Enforcement of Public Price Controls," (unpublished, Texas A & M, September, 1979).

Crain, W. Mark, "Cost and Output in the Legislative Firm," The Journal of Legal Studies, VIII no. 3 (June, 1979): 607-621.

Crain, W. Mark, T. H. Deaton and Robert D. Tollison, "On the Survival of Corporate Executives," Southern Economic Journal 43 no. 3 (January, 1977): 1372-1375.

Crain, W. Mark and Robert D. Tollison, "The Sizes of Majorities," Southern Economic Journal 46 no. 3 (January, 1980): 726-734.

_____, "The Executive Branch in an Interest Group Theory of Government," Journal of Legal Studies VIII no. 3 (June 1979): 555-568.

_____, "The Influence of Representation on Public Policy," The Journal of Legal Studies VI no. 2 (June, 1977): 355-362.

Dahl, Robert A., "Business and Politics: A Critical Appraisal of Political Science," in Social Science Research on Business: Product and Potential, Robert A. Dahl, Mason Haire and Paul F. Lazarfeld, eds., (New York: Columbia University Press, 1959): 1-44.

Davies, J. Clarence, III and Barbara S. Davies, The Politics of Pollution, (New York: Pegasus, 1970).

Davis, Otto A. and Andrew Whinston, "Externalities, Welfare, and the Theory of Games," Journal of Political Economy 70 no. 3 (June, 1962): 241-262.

Downs, Anthony. An Economic Theory of Democracy (New York: Harper and Row, 1957).

Edwards, Corwin D., "Conglomerate Bigness as a Source of Power," Business Concentration and Price Policy, National Bureau of Economic Research Special Conference Series No. 5 (Princeton, New Jersey: Princeton University Press, 1955): 331-60.

Ehrbar, A. F., "'Bigness' Becomes the Target of the Trustbusters," Fortune (March 26, 1979).

Epstein, Edwin M., "Business and Labor Under the Federal Election Campaign Act of 1971," in Parties, Interest Groups and Campaign Finance Laws, Michael J. Malbin, ed., A Conference Sponsored by The American Enterprise Institute, Washington, D.C., 1980: 109-124.

_____, "Firm Size and Structure, Market Power and Business Political Influence: A Review of the Literature," in The Economics of Firm Size, Market Structure, and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July 1980: 240-281.

_____, The Corporation in American Politics, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969).

Feldman, Julian and Herschel E. Kanter, "Organizational Decision-Making," in Handbook of Organizations, James G. March, ed. (Chicago: Rand McNally, 1965): 45-65.

Finger, J. M., H. Keith Hall, and Douglas R. Nelson, "The Political Economy of Administered Protection," American Economic Review 72 no. 3 (June, 1982): 452-466.

Freeman, Richard B. and James L. Medoff, "New Estimates of Private Sector Unionism in the United States," Industrial and Labor Relations Review 32 no. 2 (January, 1979): 143-174.

Friedman, Milton, Price Theory, A Provisional Text, (Chicago: Aldine Publishing Co., 1962).

Frohlich, Norman and Joe A. Oppenheimer, "I Get By With A Little Help From My Friends," World Politics 23 (October, 1970) pp. 104-120.

- Glassman, Cynthia A., "The Impact of Banks' Statewide Economic Power on Their Political Power: An Empirical Analysis," (unpublished paper, Federal Reserve Board, Washington, D.C., 1979).
- Goldberg, Victor, "Institutional Change and the Quasi-Invisible Hand," Journal of Law and Economics 17 no. 2 (October, 1974): 461-92.
- Gujarati, Damodar, Basic Econometrics (New York: McGraw Hill Book Company, 1978).
- _____, "Use of Dummy Variables in Testing for Equality Between Sets of Coefficients in Linear Regression: A Generalization," American Statistician 24 no. 5 (December, 1970): 18-22.
- Hayek, Friedrich A., Individualism and Economic Order, (Chicago: University of Chicago Press, 1948).
- Head, John, "Public Goods and Public Policy," Public Finance XVII no. 3 (1962): 197-219.
- Heard, Alexander, The Costs of Democracy (Durham, North Carolina: Seeman Printery, 1960).
- Hicks, J. R., The Theory of Wages (New York: Macmillan, 1932).
- Hill, Christopher T. and James M. Utterback, eds., Technological Innovation for a Dynamic Economy (New York: Pergamon Press, 1979).
- Hinich, Melvin J. and Peter C. Ordeshook, "Plurality Maximization vs. Vote Maximization: A Spatial Analysis with Variable Participation," American Political Science Review 64 no. 3 (September, 1970): 788-789.
- Hirsch, Werner Z., Law and Economics: An Introductory Analysis (New York: Academic Press, 1979).
- Horwitz, M., The Transformation of American Law 1780-1869 (Cambridge: Harvard University Press, 1977).
- Hu, Teh-wei, Econometrics (Baltimore: University Park Press, 1973).
- Keating, Barry, "Pressure Group Influence: An Economic Case Study," (Notre Dame, Department of Economics, unpublished paper).
- Kimball, James, "The Economic Effect of Water Effluent Regulation and Enforcement Upon Firm Behavior," (Ph.D. dissertation, Virginia Polytechnic Institute, 1978).
- Kmenta, Jan, Elements of Econometrics (New York: Macmillan Publishing Company, 1971).

- Krueger, Anne O., "The Political Economy of the Rent-Seeking Society," American Economic Review LXIV no. 3 (June, 1944): 291-303.
- Kuh, Edwin, Capital Stock Growth: A Micro-Econometric Approach (North Holland, 1963).
- Landes, W. M. and R. A. Posner, "The Independent Judiciary in an Interest-Group Perspective," Journal of Law and Economics XVIII no. 3 (December, 1975): 875-902.
- Leavitt, Harold J., William R. Dill and Henry B. Eyring, The Organizational World (New York: Harcourt Brace Jovanovich, Inc., 1973).
- Leibenstein, H., "Allocative Efficiency vs. X-Efficiency," American Economic Review 56 (June, 1966): 392-415.
- Lewellan, W. G. and B. Huntsman, "Managerial Pay and Corporate Performance," American Economic Review 60 no. 4 (September, 1970): 710-720.
- Lieberson, Stanley, "An Empirical Study of Military-Industrial Linkages," in Testing the Theory of the Military Industrial Complex, Steven Rosen, ed. (Lexington, Mass.: Lexington Books, 1973): 61-84.
- Lindbloom, Charles, "Commentary," in The Economics of Firm Size, Market Structure, and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by The Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980: 319-324.
- Lindbloom, Charles, Politics and Markets (New York: Basic Books, 1977).
- Linowes, R. Robert and Donald T. Allensworth, The Politics of Land Use (New York: Praeger, 1976).
- Madison, James, The Federalist Papers, nos. 10 and 51.
- Malbin, Michael J., "Of Mountains and Molehills: PACs, Campaigns, and Public Policy," in Parties, Interest Groups, and Campaign Finance Laws, Michael J. Malbin, ed., A Conference Sponsored by The American Enterprise Institute, Washington, D.C., 1980: 140-161.
- Mann, H. Michael and Karen McCormick, "Firm Attributes and the Propensity to Influence the Political System," in The Economics of Firm Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a Conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980: 300-313.

- Manne, Henry G., "Mergers and the Market for Corporate Control," Journal of Political Economy, 72 No. 2 (April, 1965): 110-120.
- Marx, Thomas, "Political Consequences of Conglomerate Mergers," (unpublished, General Motors Co., 1980).
- Masson, R. T., "Executive Motivations, Earnings, and Consequent Equity Performance," Journal of Political Economy 79 no. 6 (November/December 1971): 1278-1292.
- McGuire, J. W., J. S. Chin and S. O. Elbing, "Executive Incomes, Sales, and Profits," American Economic Review LII no. 4 (September, 1962): 753-761.
- Mintz, Morton and Jerry Cohen, America, Inc. (New York: Dell Publishing Company, 1971).
- Nadel, Mark V., Corporations and Political Accountability (Lexington: Heath Publishing Co., 1976).
- Needham, Douglas, The Economics of Industrial Structure Conduct and Performance (New York: St. Martin's Press, 1978).
- Niskanen, William, Bureaucracy and Representative Government (Chicago: Aldine Press, 1971).
- Noll, Roger, "The Behavior of Regulatory Agencies," Review of Social Economy, 29 no. 1 (March, 1971): 15-19.
- Olson, Mancur, The Logic of Collective Action (Cambridge, Mass.: Harvard University Press, 1965).
- Ornstein, Norman J. and Shirley Elder, Interest Groups, Lobbying and Policymaking (Washington, D.C.: Congressional Quarterly Press, 1978).
- Orren, Karen, Corporate Power and Social Change: The Politics of the Life Insurance Industry (Baltimore: Johns Hopkins University Press, 1974).
- Pechman, J. A. and B. A. Oker, Who Bears the Tax Burden (Washington, D.C.: The Brookings Institution, 1974).
- Pfeffer, Jeffrey and Gerald Salancik, The External Control of Organizations: A Resource Dependence Perspective (New York: Harper and Row Publishers, 1978).
- Pincus, J. J., "Pressure Groups and the Patterns of Tariffs," Journal of Political Economy 83 no. 4 (August 1975): 757-778.

Pindyck, Robert S. and Daniel L. Rubinfeld, Econometric Models and Economic Forecasts (New York: McGraw-Hill Book Company, 1981).

Pittman, Russell, "Market Structure and Campaign Contributions," Public Choice XXXI (Fall, 1977): 37-52.

_____, "The Effects of Industry Concentration in Three 1972 Senate Campaigns," Public Choice XXVII (Fall, 1976): 71-80.

Posner, Richard, "Theories of Economic Regulation," The Bell Journal of Economics and Management Science 5 no. 2 (Autumn 1974): 335-358.

Preston, Lee E., "Corporation and Society: The Search for a Paradigm," Journal of Economic Literature XIII no. 2 (June, 1975): 434-453.

Reid, Samuel Richardson, The New Industrial Order: Concentration, Regulation and Public Policy (New York: McGraw-Hill Company, 1976).

Richardson, D. H. and R. J. Rohn, "Distribution of a Structural t-Statistic for The Case of Two Included Endogenous Variables," Journal of The American Statistical Association 66 no. 334 (June 1971): 375-382.

Rose, John T., "Aggregate Concentration in Banking and Political Leverage: A Suggested Methodology," (unpublished, Board of Governors of the Federal Reserve, 1976).

Salamon, Lester M. and John J. Siegfried, "Economic Power and Political Influence: The Impact of Industry Structure on Public Policy," American Political Science Review LXXXI, no. 3 (September, 1977): 1026-1043.

Samuelson, Paul A., "Diagrammatic Exposition of A Theory of Public Expenditure," Review of Economics and Statistics, XXXVII (November, 1955): 350-356.

_____, "The Pure Theory of Public Expenditure," Review of Economics and Statistics XXXVI (November, 1954): 387-390.

Schattschneider, E. E., The Semisovereign People (New York: Holt, Rinehart and Winston, 1960).

_____, Politics, Pressure and the Tariff (New York: Prentice Hall, 1935).

Sethi, S. P., Advocacy Advertising and Large Corporations: Social Conflict, Big Business Image and Mass Media and Public Policy, (Englewood Cliffs, New Jersey: Prentice-Hall, 1977).

Shapiro, Martin, Law and Politics in the Supreme Court: New Approaches to Political Jurisprudence (New York: Free Press of Glencoe, 1964).

Siegfried, John J., "The Relationship Between Economic Structure and the Effect of Political Influence: Empirical Evidence From the Federal Corporation Income Tax Program," (Ph.D. dissertation, University of Wisconsin, 1972).

Simon, Herbert, Models of Man (New York: John Wiley and Sons, 1957).

Standard and Poor's, Corporation Records (New York: McGraw-Hill, 1978).

Stigler, George, "Economic Competition and Political Competition," Public Choice XIII (Fall, 1972): 91-106.

_____, "The Theory of Economic Regulation," The Bell Journal of Economics and Management Science 2 no. 1 (Spring, 1971): 3-21.

Truman, David, The Governmental Process (New York: Alfred A. Knopf, 1951).

Tullock, Gordon, "Efficient Rent-Seeking," in Toward a Theory of the Rent-Seeking Society, James M. Buchanan, Robert D. Tollison and Gordon Tullock, eds. (College Station: Texas A&M Press, 1980: 97-112.

_____, "Rent-Seeking as a Negative Sum Game," in Toward a Theory of Rent-Seeking Society, James M. Buchanan, Robert D. Tollison, and Gordon Tullock, eds. (College Station: Texas A&M Press, 1980): 16:36.

_____, "The Welfare Costs of Tariffs, Monopolies, and Theft," in Toward a Theory of the Rent-Seeking Society, James M. Buchanan, Robert D. Tollison and Gordon Tullock, eds. (College Station: Texas A&M Press, 1980): 39-50.

U.S. Bureau of the Census, 1977 Census of Construction Industries, Department of Commerce, U.S. Government Printing Office, July, 1981.

_____, 1977 Census of Manufacturers III, U.S. Department of Commerce, U.S. Government Printing Office, August, 1981.

_____, 1977 Census of Mineral Industries: Subject, Industry and Area Statistics, Department of Commerce, U.S. Government Printing Office, August, 1981.

_____, 1977 Census of Retail Trade, Department of Commerce, U.S. Government Printing Office, November 1980.

U. S. Bureau of the Census, 1977 Enterprise Statistics: General Report on Industrial Organization, Department of Commerce, U.S. Government Printing Office, Washington, D.C., 1981.

U. S. Federal Election Commission, The FEC and the Federal Campaign Finance Law, U.S. Government Printing Office, Washington, D.C. 1980.

_____, 1976 Federal Election Commission Annual Report, U.S. Government Printing Office, Washington, D.C., 1980.

_____, 1977 Federal Election Commission Annual Report, U.S. Government Printing Office, Washington, D.C., 1980.

_____, FEC Disclosure Series, No. 8: Corporate-Related Political Action Committees Receipts and Expenditures, 1976 Campaign, U.S. Government Printing Office, Washington, D.C., September 1977.

_____, FEC Disclosure Series, No. 6, U.S. Government Printing Office, Washington, D.D., 1977.

U. S. Internal Revenue Service, Statistics of Income - 1977, Corporation Income Tax Returns, U.S. Government Printing Office, Washington, D.C., 1981.

Wagner, Richard E., "Pressure Groups and Political Entrepreneurs: A Review Article," Papers on Non-market Decision-Making, (Charlottesville, Virginia: University of Virginia, 1967), pp. 161-170.

Weiss, Leonard W., "Concentration and Labor Earnings," American Economic Review 56 no. 1 (March 1966).

Welch, William, "The Economics of Campaign Funds," Public Choice XX (Winter, 1964): 83-97.

Williamson, Oliver, "Commentary," in The Economics of Firm Size, Market Size, Market Structure and Social Performance, John J. Siegfried, ed., Proceedings of a conference sponsored by the Bureau of Economics, Federal Trade Commission, Washington, D.C., July, 1980: 78-88.

_____, "The Economics of Antitrust: Transactions Costs Considerations," University of Pennsylvania Law Review 22 no. 1 (June, 1974): 1439-1496.

_____, "Managerial Discretion and Business Behavior," American Economic Review 53 no. 5 (December, 1963): 1032-1057.

APPENDIX

Variables Employed in Empirical Analysis

SOI Industry Code	PAC Contribution
1010	Iron Ores 26350
1070	Copper, Lead and Zinc, Gold and Silver Ores 58195
1330	Crude Petroleum, Natural Gas & Natural Gas Liquids 235890
1380	Oil and Gas Field Services 33658
1430	Dimension, Curshed and Broken Stone; Sand & Gravel 4157
1498	Other Nonmetallic Minerals 16032
1510	General Building Contractors 27099
2020	Dairy Products 7001
2030	Preserved Fruits and Vegetables 15539
2040	Grain Mill Products 54352
2060	Sugar and Confectionary Products 22239
2096	Other Food and Kindred Products 18344
2080	Beverages 187086
2228	Weaving Mills and Textile Finishing 7250
2298	Other Textile Mill Products 5584
2415	Logging, Sawmills and Planing Mills 111089
2430	Millwork, Plywood and Related Products 66105
2500	Furniture and Fixtures 24218
2625	Pulp, Paper and Board Mills 190209
2699	Other Paper Products 4000
2720	Periodicals 11900
2799	Commercial & Other Printing & Printing Trade Services 14376
2735	Books, Greeting Cards & Miscellaneous Publishing 7032
2815	Industrial Chemicals, Platics Materials & Synthetics 522255
2830	Drugs 72220
2840	Soap, Cleaners and Toilet Goods 15435
2850	Paints and Allied Products 19346
2898	Agricultural and Other Chemical Products 43802
2910	Petroleum Refining (Including Integrated) 112115
2998	Petroleum and Coal Products n.e.c. 83550

Variables Employed in Empirical Analysis

SOI Industry Code		PAC Contribution
3050	Rubber Products; Plastics, Footwear, Hose & Belting	1502
3070	Miscellaneous Plastic Products	60627
3225	Glass Products	26675
3370	Ferrous Metal; Miscellaneous Primary Metal Products	292191
3380	Nonferrous Metal Products	112014
3410	Metal Cans and Shipping Containers	24014
3428	Cutlery, Handtools, Hardware; Screw Machine Products	1300
3430	Plumbing & Heating, Except Electric & Warm Air	875
3440	Fabricated Structural Metal Products	4576
3460	Metal Forgings and Stampings	7047
3470	Coating, Engraving and Allied Services	2000
3490	Miscellaneous Fabricated Metal Products	2000
3598	Other Machinery, Except Electrical	23478
3520	Farm Machinery	91310
3530	Construction and Related Machinery	2837
3560	General Industrial Machinery	40829
3570	Office, Computing and Accounting Machines	37080
3698	Other Electrical Equipment	109582
3630	Household Appliances	171146
3665	Radio, Television and Communication Equipment	6125
3710	Motor Vehicles and Equipment	140348
3725	Aircraft, Guided Missiles and Parts	314963
3798	Other Transportation Equipment, Except Motor Vehicles	24026
3845	Optical, Medical and Ophthalmic Goods	5035
3998	Miscellaneous Manufacturing (Recreation & Jewelry)	4818
5300	General Merchandise Stores	11894
5410	Food Stores	29929
5800	Eating and Drinking Places	4850
5912	Drug Stores and Proprietary Stores	2550
5995	Other Retail Stores	27925

Variables Employed in Empirical Analysis

SOI Industry Code	Union	Four-Firm Concentration Ratio	Geographical Dispersion Index	Effective Tax Rate
1010	80.00	69.10	.31892	.066242
1070	65.13	42.30	.42848	.095324
1330	26.33	69.00	.18642	.381130
1380	3.00	17.07	.16705	.193424
1430	57.20	29.10	.04269	.062206
1498	44.00	35.10	.14053	.040346
1510	26.59	2.53	.00001	.063519
2020	41.00	23.56	.04112	.149645
2030	53.00	33.96	.07835	.079878
2040	44.00	50.50	.05458	.105725
2060	39.00	51.38	.07316	.059661
2096	50.43	32.90	.05235	.089661
2080	47.00	33.76	.04112	.091176
2228	18.20	40.95	.20438	.104290
2298	47.86	30.75	.06513	.088197
2415	38.23	19.87	.06153	.244314
2430	28.00	17.11	.05274	.107110
2500	40.72	19.57	.08214	.044642
2625	72.06	28.23	.05335	.045652
2699	47.38	30.94	.03007	.103366
2720	18.00	22.10	.20273	.088225
2799	38.58	15.42	.06137	.067412
2735	15.35	21.07	.09612	.051474
2815	56.36	42.20	.07434	.106783
2830	22.00	28.29	.08153	.160091
2840	27.00	45.28	.07581	.144496
2850	34.00	35.14	.07063	.078542
2898	44.75	31.70	.03549	.139103
2910	31.00	30.30	.13881	.139103
2998	56.43	33.60	.04986	.115278

Variables Employed in Empirical Analysis

SOI Industry Code	Union	Four-Firm Concentration Ratio	Geographical Dispersion Index	Effective Tax Rate
3050	49.02	47.36	.07982	.073273
3070	32.00	29.68	.08316	.082443
3225	72.99	61.80	.07137	.094375
3370	75.64	43.06	.12540	.047445
3380	64.59	43.96	.05034	.054732
3410	90.00	54.70	.06902	.093500
3428	20.19	26.72	.05545	.106514
3430	67.00	26.88	.06237	.129090
3440	44.00	16.08	.04511	.105101
3460	53.00	39.10	.11740	.097377
3470	24.00	12.44	.07064	.058830
3490	54.00	16.28	.05696	.098339
3598	80.00	29.55	.11626	.092217
3520	57.00	44.08	.08489	.076034
3530	53.00	39.01	.01030	.144977
3560	48.00	26.93	.06233	.111277
3570	10.00	47.40	.12381	.256887
3698	43.22	46.81	.06608	.110826
3630	68.00	64.51	.11639	.119698
3665	47.67	20.85	.08869	.101309
3710	72.00	62.44	.19784	.157863
3725	35.34	60.54	.27939	.409896
3798	51.69	56.58	.15634	.110381
3845	31.01	35.70	.08626	.111006
3998	45.00	26.30	.08967	.079369
5300	9.00	42.76	.05580	.049617
5410	49.00	9.00	.05363	.026578
5800	8.00	4.14	.05514	.021013
5912	9.00	14.10	.05421	.037873
5995	18.00	3.90	.05937	.036475

Variables Employed in Empirical Analysis

SOI Industry Code	Industry Size	Profit Rate	Firm Size	Assets
1010	8075	.139064	16613402	3090666
1070	37150	.075006	11207792	7786243
1330	152050	.832135	2082578	44347578
1380	190850	.288459	1301093	13130156
1430	70025	.425742	648930	3746996
1498	41300	.199229	1407803908	3564403
1510	977242	.238745	325094	40458653
2020	173600	.307435	10385666	11311424
2030	235050	.359141	69511440	13667905
2040	108375	.466344	17619388	12310329
2060	106000	.362472	8538166	7068323
2096	189132	.510909	6613335	11538233
2080	195000	.532078	13287684	22188461
2228	351550	.360739	16621254	6991024
2298	284800	.399563	7609704	9948054
2415	294175	.296354	1676729	13936886
2430	195125	.400560	1952114	10041505
2500	465875	.567511	1774025	7106788
2625	213750	.315037	125329184	22584903
2699	526575	.498736	5216183	11721710
2720	68375	.537578	1963267	4041063
2799	498500	.650300	807341	9251975
2735	160375	.508711	1838562	7319339
2815	41065	.384529	47946664	52903142
2830	128875	.421391	23007372	25318996
2840	116700	.641548	8129780	10383679
2850	60925	.600973	4407672	2658102
2898	166375	.307870	3323174	14139778
2910	101825	.237332	1011968461	23556021
2998	46725	.461882	2861088	2279869

Variables Employed in Empirical Analysis

SOI Industry Code	Industry Size	Profit Rate	Firm Size	Assets
3050	253000	.443059	17938732	14577560
3070	249700	.531583	2114668	7281653
3225	178300	.404549	9920758	8676780
3370	710675	.290763	107593744	5039812
3380	239500	.176952	29273688	42104099
3410	72200	.352560	38500968	6893506
3428	315300	.559785	3290648	6761234
3430	52400	.486697	3151939	3752953
3440	418550	.417489	2467430	12239208
3460	287900	.497132	3927594	4825189
3470	87000	.535681	34695024	1848321
3490	258225	.478236	1928058	14589511
3598	543500	.477372	7129248	10362991
3520	147475	.311260	8574886	10041358
3530	932825	.375729	15252816	21056207
3560	313450	.403910	2407135	10213841
3570	217025	.235799	2422689	28875625
3698	625550	.375570	11798030	3738874
3630	123900	.460310	17806636	7917164
3665	514950	.291064	12321602	26098955
3710	779225	.347771	29758780	10259012
3725	362375	.315119	13063148	28875625
3798	115607	.405897	4628571	3738874
3845	169075	.561037	2285536	6440487
3998	440400	.504161	1240329	15119601
5300	1794468	.612041	141349649	52359599
5410	1662124	.928911	904042	24722281
5800	3405735	.928424	210557	16838205
5912	388307	.890363	569295	5791723
5995	1046704	.743564	167690	22389350

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