

SOME ECONOMIC ASPECTS OF CORPORATE GIVING,

by

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## CHAPTER I

### INTRODUCTION

This study examines the behavior and motivations of firms that voluntarily transfer a portion of their profits to persons holding no ownership rights in those firms. More specifically, the study will concentrate on the economic factors which describe and influence corporate giving for charitable and philanthropic purposes.<sup>1</sup>

Corporate giving in the form of contributions and gifts reported in the income tax returns of corporations increased significantly in the United States during the last few decades.<sup>2</sup> This increase represents not just an absolute dollar increase associated with the growth of total corporate activity. There has apparently been a real increase as well. Several economists have noted the increased role of corporations in the charity market and have attempted to discover its reasons. Their studies are reviewed in the next chapter.

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<sup>1</sup>Definitions of charity and philanthropy are given in Chapter II and employed in Chapter III to analyze the motives of firms that give. Use of the terms in connection with corporate giving is misleading under strict definitions of the two terms. Therefore, to avoid the connotations of charity or philanthropy, the terms "corporate giving" or simply "giving" are used to describe those transactions not involving a direct quid pro quo exchange for the corporation.

<sup>2</sup>Corporations were first allowed to deduct gifts and contributions from taxable income in 1936, subject to certain limitations. In that first year of deductability, corporations gave \$30 million. By 1969, the total amount deducted by all corporations exceeded \$1 billion.

This study is an empirical examination of the factors that influence corporate giving. As such, the study looks at the relationship of giving to such things as industrial concentration, average firm size, profits, and industrial composition using available data sources. In formulating a theoretical framework with which to evaluate the empirical results, an auxiliary issue was raised involving the relationship between corporate giving and the economics of charity in general. This related issue concerns the motives of those firms that involve their employees in charitable giving, as a condition of employment. A discussion of this issue may provide an improved understanding of the empirical results. The next chapter begins with a review of the literature dealing with the economics of charity in general.

Chapter III contains a theoretical framework of corporate giving. It relies largely on the works reviewed in Chapter II. In addition, Chapter III includes a discussion of employee giving as a condition of employment. Chapter IV describes the data and methodology used for the empirical tests. The primary data source for this study was the Internal Revenue Service's Source Book,<sup>3</sup> which contains a consistent set of economic variables which are used in the empirical work.

Chapter V presents and evaluates the empirical findings of this study. The analysis contained in this chapter relies on a multiple regression model for testing relationships between corporate giving and the major economic factors which influence giving. As such, the manufacturing sector receives more attention in the regression analysis

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<sup>3</sup>U.S. Department of the Treasury, Internal Revenue Service, Corporation Source Book of Statistics of Income.

than do the other industrial sectors for reasons which are explained in Chapter IV. Another section of Chapter V employs comparative data to deal with all industrial sectors. This is to determine whether the type of industry in which a firm operates influences its giving.

A major influence on the present study was the 1970 NBER publication of Ralph L. Nelson.<sup>4</sup> The present study adopts the methodology used in Nelson's empirical work where possible, to ease the problem of comparing the findings by Nelson with those of this study. It should be noted, however, that the approach used in Nelson's study differs from this. Nelson conducted a time-series analysis of corporate giving, as well as a cross-sectional analysis, with more emphasis placed on the former. The present study concentrates on a cross-sectional examination of corporate giving for the time period 1968 to 1970. Thus the variables examined in the two studies are different in some instances and differ in importance in others. Despite the differences, a comparison of Nelson's study with this one seems possible, and necessary, to determine whether the two are consistent.

Chapter VI summarizes the results of this and is followed by several appendices which relate primarily to the empirical data and findings of Chapter V.

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<sup>4</sup>Ralph L. Nelson, Economic Factors in the Growth of Corporation Giving (New York: National Bureau of Economic Research and Russell Sage Foundation, 1970).

## CHAPTER II

### REVIEW OF THE LITERATURE

The literature surveyed for the present study is reviewed in this chapter according to two categorical groupings. The two works cited in the first group pertain to the economics of charity in general.<sup>1</sup> They introduce some basic definitional aspects of charitable transfers and examine the motives for giving by individuals. The works are briefly reviewed for their relevancy to the issue of employee giving as a condition of employment. The second group of literature contains those works that are specifically concerned with corporate giving. This group contains several empirical studies of corporate giving, as well as some theoretical studies.

#### The Economics of Charity

David B. Johnson

Johnson's theoretical analysis of the charity market attempts to define "charity" and "philanthropy" in an operationally useful context.<sup>2</sup> He notes the dictionary's definitions of the two terms whereby

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<sup>1</sup>Several other works provided background for the present study, although they are not reviewed in this chapter. Particularly helpful are the works by Tullock and the NBER study edited by Dickinson which are cited in this study's bibliography.

<sup>2</sup>David B. Johnson, "Some Fundamental Economics of the Charity Market," in The Economics of Charity, ed. Gordon Tullock (Blacksburg, VA: Center for Study of Public Choice, 1970), pp. 73-138.

philanthropy "is a more general word than charity. . . .

[Philanthropy] deals with the broad problems of humanity by preventing rather than allaying calamity, while charity deals with the alleviation of the suffering of the individual."<sup>3</sup> For his own purposes, Johnson defines charity in an economic context:

as it is to be used in this book, charity refers to the voluntary transfer of goods and services by one individual to other individuals or institutions below the free market price with the aim of effecting the voluntary provision of a public good.<sup>4</sup>

Johnson argues that the basic motivation for individual giving is social pressure. He discusses other motives but dismisses them as less significant than social pressure.<sup>5</sup> However, one of the alternatives is relevant to Chapter III of this study. The remainder of this section looks at that motive for giving which Johnson termed "income maintenance or betterment."<sup>6</sup>

Johnson notes the condition of employment that exists in some firms whereby an employee feels compelled "to contribute to charity in order to increase his future income stream, or to keep it from falling."<sup>7</sup> Johnson does not examine the employer's reasons for wanting his employees to give, but does state that this motive for giving "will be found only in imperfect commodity or resource markets."<sup>8</sup> This does not imply that all firms in imperfect markets require employee giving. Nor does it assume that the pressure applied to employees is the same in all firms. A relevant implication is that the firm in a perfectly competitive market

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<sup>3</sup>Ibid., p. 76.    <sup>4</sup>Ibid.    <sup>5</sup>Ibid., pp. 112-14.

<sup>6</sup>Ibid., p. 112.    <sup>7</sup>Ibid., p. 113.    <sup>8</sup>Ibid.

cannot institute such a condition of employment if it is to survive in the industry.

Thomas R. Ireland

Ireland's study of United Fund organizations examines the nature of philanthropic activity.<sup>9</sup> He designates five basic motives for philanthropic action:

- (1) A desire for public goods in terms of direct personal motives.
- (2) A desire for public goods in terms of broader public motives.
- (3) A desire to act in a "good" fashion.
- (4) The political motive.
- (5) Condition of employment.<sup>10</sup>

When the first two motives are involved, the source of utility is in the end result of the act. Thus, Ireland maintains that the free rider problem is operational in the first two. When the last three motives are considered, individual utility is derived from the "act" of giving, rather than from the "result" of giving. The free rider problem is inoperative in these motives since the individual must actually give to increase his utility.

Since the present study examines employee giving as a condition of employment, a brief review of Ireland's fifth motive follows. Ireland notes that this motive differs from his others "in that it primarily involves a specific price which the individual can pay to avoid a 'bad'

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<sup>9</sup>Thomas R. Ireland, "Charity Budgeting," in The Economics of Charity, ed. Gordon Tullock (Blacksburg, VA: Center for Study of Public Choice, 1970), pp. 11-69.

<sup>10</sup>Ibid., pp. 19-22.

result."<sup>11</sup> Ireland does not examine the employer's reasons for imposing this condition of employment. He does examine a likely form of giving for satisfying the condition. The employer incurs costs when he institutes this condition of employment and seeks ways of minimizing those costs. In most cases, these costs are minimized by having employees give to United Way fund drives.<sup>12</sup>

### Corporate Giving

Richard Eells

Eells examines the corporate rationale for giving and assesses the role of corporate giving in a constitutional government.<sup>13</sup> Eells advocates corporate giving based on the concept of corporate social responsibility. Eells views corporate giving as a social responsibility to be accepted by firms. He argues:

. . . the enlightened self-interest that must guide corporation philanthropy encompasses the balanced best interests of a number of groups: a company's share owners, its customers, its employees, its suppliers, and the public at large--and not any of these to the exclusion of the others.<sup>14</sup>

Eells develops a philosophy of corporate giving, deriving "seven general principles that underlie all sound corporation giving."<sup>15</sup> One of Eells's principles is quoted here because it relates to a later argument in this study.

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<sup>11</sup>Ibid., p. 26.      <sup>12</sup>Ibid., pp. 31-32.

<sup>13</sup>Richard Eells, Corporation Giving in a Free Society (New York: Harper & Brothers, 1956).

<sup>14</sup>Ibid., p. xi.      <sup>15</sup>Ibid., p. 135.

A major objective is to fortify the vital private sectors of our economy as protective of the corporate donor's interests and as an expression of his philosophy of a free society.<sup>16</sup>

A predominate theme in Eells's analysis is that corporate giving exerts a beneficial political effect. Eells assigns the corporation some responsibility to maintain the balance of power between the public and private sectors of the U.S. economy. This is done by contributing to areas in the private sector such as education, private welfare agencies, or medical research.<sup>17</sup> The alternative to this is governmental assumption of responsibility for funding these areas. Eells views governmental action with alarm. A larger role assumed by government weakens the constitutional balance of power in the economy. This reduces individual freedom and free enterprise, according to Eells.

The above review briefly states the corporate social responsibility concept and indicates one facet of it which is examined in Chapter III. Overall, the policies and arguments given by Eells advocate a social and political environment which is beneficial and conducive to the corporate form of enterprise. This does not seem inconsistent with long-run profit maximization.

#### Henry G. Manne

Manne critically examines the concept of corporate social responsibility. He sees corporate giving as the primary manifestation of the concept. This section reviews three of Manne's works. All reflect his basic contention that social responsibility does not serve well as a motivation for corporate behavior.

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<sup>16</sup>Ibid.    <sup>17</sup>Ibid., p. 137.

A journal article treats several aspects of the corporation, social responsibility included.<sup>18</sup> Manne's initial criticism of the social responsibility concept is that corporate managers possess no comparative advantage over anyone else in making non-business decisions concerning social welfare. The decision-making process used by the firm for profit maximization differs substantially from the process used to determine efficiency in public goods provision. So do the standards used to evaluate the success of each process. Further, an efficient provision of public goods is unlikely as each firm attempts to meet its responsibilities using the resources under its control.<sup>19</sup>

Manne offers two possible explanations for corporate giving. "The first is that the corporation has achieved some monopoly power, perhaps illegally."<sup>20</sup> Alternatively, when "there is monopoly power and the firm survives in the long-run despite substantial giving, it must be because the shareholders have agreed to operate something other than a purely business association."<sup>21</sup>

Manne's second paper deals exclusively with corporate social responsibility.<sup>22</sup> Manne argues that many corporate acts commonly identified as social responsibility can be explained instead as profit maximizing behavior. For example, Manne cites the actions of corporate

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<sup>18</sup>Henry G. Manne, "The 'Higher Criticism' of the Modern Corporation," Columbia Law Review 62 (March 1962): 399-432.

<sup>19</sup>Ibid., p. 416.    <sup>20</sup>Ibid., p. 417.    <sup>21</sup>Ibid.

<sup>22</sup>Henry G. Manne, "Corporate Responsibility, Business Motivation, and Reality," The Annals of the American Academy of Political and Social Science 343 (September 1962): 55-64.

managers to forestall government sanctions or restrictive legislation. While these acts might reflect an enlightened attitude by corporate managers to serve society, they are actually undertaken to avoid other actions which would be more detrimental to the firm.

Corporate giving involves an additional effect. The favorable tax treatment accorded corporate giving by existing legislation provides some motivation for giving. In addition, Manne feels that corporate giving is motivated to a large extent by profit oriented considerations. "Restricted grants to universities for research in areas of importance to the business bear an obvious benefit to the donor."<sup>23</sup> Corporate gifts to local community projects benefit the firm by alleviating "the problem of getting along with local political powers."<sup>24</sup> In addition, giving serves "an important public-relations function."<sup>25</sup> Thus Manne views the majority of corporate giving as motivated by reasons other than pure social consciousness.

Corporate giving undertaken for purely philanthropical motives is subject to market restraints facing the firm. Manne argues:

If the corporation were in a perfectly competitive industry, in the sense suggested by a static equilibrium model, no amount of charitable giving could be tolerated. Any increase in costs over those of competitors would result in the inability of the firm to survive.<sup>26</sup>

A final observation implies that social responsibility may be disguised profit maximization:

Fads and styles are very much a part of our dynamic economic process. Few businessmen have the time, ability, or interest carefully to analyze and understand either the origins or the

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<sup>23</sup>Ibid., p. 60.

<sup>24</sup>Ibid.

<sup>25</sup>Ibid.

<sup>26</sup>Ibid.

impact of their expressed view. There are style-setters and taste-makers in the industrial society as there are in the cultural one. Once a pattern is set and identified in the minds of executives with business success and survival, they will imitate, embellish, and implement the new ideal. The casual observer may easily be misled into believing that the underlying process has in some profound way been altered.<sup>27</sup>

In the third work, Manne attempts to define corporate social responsibility.<sup>28</sup> In effect, he delimits the concept to encompass only corporate giving. Manne specifies three conditions which corporate giving must meet to qualify as socially responsible behavior. The first is that "the expenditure or activity be one for which the marginal returns to the corporation are less than the returns available from some alternative expenditure."<sup>29</sup> Otherwise, the act is simply profit maximizing. Second, the act must be voluntary.<sup>30</sup> This eliminates corporate acts which appear to be socially responsible but which, in reality, are motivated by threats of government intervention or other actions. Finally, "the activity must be that of a corporation, not that of an individual. Meaningful 'corporate' social behavior must connote something different from individual contributions being made through a corporate conduit."<sup>31</sup> While Manne's definition of corporate social responsibility clarifies the philanthropic motive for corporate giving, it lacks operational content.<sup>32</sup>

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<sup>27</sup>Ibid., p. 63.

<sup>28</sup>Henry G. Manne and Henry C. Wallich, The Modern Corporation and Social Responsibility, Rational Debate Series of the American Enterprise Institute (Washington: American Enterprise Institute for Public Policy Research, 1972), pp. 1-34.

<sup>29</sup>Ibid., p. 4.      <sup>30</sup>Ibid., p. 5.      <sup>31</sup>Ibid., pp. 6-7.

<sup>32</sup>Ibid., p. 8.

## Orace Johnson

In one article, O. Johnson examines firms that make contributions of their own products.<sup>33</sup> Product giving is a special case of corporate giving. Such giving may yield a net profit to the firm because of its present income tax treatment.<sup>34</sup> Johnson feels that the profit-inducement of product giving is significant for some firms. The present study does not distinguish between product and monetary corporate giving due to data limitations. However, the profit possibilities of product giving should be considered in the analysis of total corporate giving.

Johnson deals with corporate giving more generally in a second article.<sup>35</sup> He examines the relationship of corporate giving to industry structure and firm size to determine the firm's motive for giving. Johnson evaluates profit maximization and social responsibility as alternative explanations of corporate giving. His analysis is conducted with IRS Source Book data for the period 1936-1961.

Johnson's dependent variable throughout is the contribution ratio, which is simply corporate giving as a percentage of before-tax profit for various groupings of firms. All of Johnson's tests utilize highly aggregated data. In most instances, Johnson presents his findings graphically. Regression analysis is not employed in the study.

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<sup>33</sup>Orace Johnson, "Corporate Giving: A Note on Profit Maximization and Accounting Disclosure," Journal of Accounting Research 3 (Spring 1965): 75-85.

<sup>34</sup>Ibid., pp. 77-78.

<sup>35</sup>Orace Johnson, "Corporate Philanthropy: An Analysis of Corporate Contributions," Journal of Business 39 (October 1966): 489-504.

Johnson first examines the relationship between corporate giving and industry structure, as measured by industrial concentration. His basic hypothesis is "that there is a positive relationship between an industry's concentration ratio and its contribution ratio."<sup>36</sup> This, in accord with the social responsibility concept, assumes that concentration is directly related to market power. Power, in turn, generates social responsibilities for the industry. To test this, Johnson calculates the contribution ratios of several industries for which concentration ratios are available.<sup>37</sup> Contrary to the hypothesis, he finds an inverse relationship between concentration and the contribution ratio. However, the test is inconclusive because the methods used to determine the concentration ratios are questionable, as is discussed in Chapter IV of this study.

Johnson then reexamines the relationship under assumptions that do not involve concentration measures. Johnson assumes that the firm in a perfectly competitive industry cannot give if it is to survive in its industry. In the absence of perfect competition, corporate giving is possible. "But the absence of competition is only a necessary but not a sufficient reason for contributions."<sup>38</sup> Johnson defines "rival" industries to include oligopoly, imperfect, or monopolistic competition. He predicts that rival firms give at relatively high levels since they "are more likely to seek a comparative advantage over each other by means that the atomistically competitive firms cannot, and the monopolistic firms need not employ."<sup>39</sup> He assumes that corporate

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<sup>36</sup>Ibid., p. 494.    <sup>37</sup>Ibid.    <sup>38</sup>Ibid., p. 497.    <sup>39</sup>Ibid.

giving is a form of nonprice competition among rival firms. Finally, he predicts that monopolists have relatively low contribution ratios. Presumably, he is testing the profit motive for giving in this analysis. The monopolist has a low contribution ratio because he faces no direct competition from other firms.

To test his predictions, Johnson assumes agriculture to be competitive; manufacturing, services, trade, and construction to be rival industries; and utilities, finance, and mining to be monopolistic. Using Source Book data, he computes contribution ratios for the industries within each industry structure. The findings substantiate Johnson's predictions. Rivalry industries, in the aggregate, as well as separately, consistently contribute at higher levels than the competitive or monopolistic industries.

With regard to firm size, Johnson hypothesizes that the largest and smallest corporations give at relatively low levels, while middle-sized firms have relatively high contribution ratios. The Source Book's asset class size distribution serves as a measure of firm size. Johnson calculates contribution ratios for each asset class using data provided in the distribution. The findings, presented graphically,<sup>40</sup> support his predictions. Middle-sized firms have higher contribution ratios. By implication, this result supports the profit maximizing motive for corporate giving.

A final test by Johnson combines the findings of the industry structure and firm size examinations. Basically, he looks at the

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<sup>40</sup>Ibid., p. 501.

relationship between giving and firm size within each of the three industry structures (i.e., rivalry, competition, and monopoly). Graphically, he derives one curve for each of the structures. Johnson finds the rivalry curve to be substantially above the monopoly and competition curves within each asset class. The relationship between firm size and giving for each market structure is also consistent with his earlier predictions.<sup>41</sup>

#### R. A. Schwartz

Schwartz examines two alternative explanations of corporate giving in his empirical study.<sup>42</sup> First, he attempts to equate corporate giving with through-the-firm individual philanthropy. As such, an individual owner or manager of a firm satisfies his personal philanthropic desires through corporate giving. Alternatively, corporate giving may be "motivated by the expectation of an increased monetary return"<sup>43</sup> for the firm. This second explanation is similar to Johnson's profit maximization motive for giving.

In his empirical analysis, Schwartz attempts to discover the nature of corporate giving by examining its response "to changes in a set of independent variables."<sup>44</sup> The independent variables are "price, net income, cash flow, advertising expenditure, and a time trend factor."<sup>45</sup>

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<sup>41</sup>Ibid., pp. 500-503.

<sup>42</sup>R. A. Schwartz, "Corporate Philanthropic Contributions," Journal of Finance 23 (June 1968): 479-97.

<sup>43</sup>Ibid., p. 480.    <sup>44</sup>Ibid.    <sup>45</sup>Ibid., p. 483.

The "price" of giving is defined as the net after-tax cost of a one dollar contribution. The price of giving, therefore, is functionally related to the marginal tax rate paid by the donor. Schwartz demonstrates this relationship in the following:

. . . the net cost of a gift ( $D_n$ ) differs from the gross cost ( $D_g$ ) by the relationship

$$(1) \quad D_n = D_g (1 - t_m)$$

where  $t_m$  is the marginal tax rate paid by the firm. The net cost relative to the gross amount given determines the price of donations ( $P_d$ ). Therefore,

$$(2) \quad P_d = \frac{D_n}{D_g} = \frac{D_g (1 - t_m)}{D_g} = 1 - t_m. \quad 46$$

Schwartz argues that corporate giving represents through-the-firm consumption when there is a significant relationship between price and corporate giving. Alternatively, corporate giving is profit oriented if no relationship exists.

Schwartz's empirical testing uses IRS data for the period 1936-1961. Both time-series and cross-sectional analysis of the variables are performed. Schwartz finds price to be significantly and negatively related to giving, his tests indicating that corporate giving is price elastic. This result supports his hypothesis that corporate giving can be explained as through-the-firm consumption. Income and cash flow, taken separately, are positively related to giving. These two independent variables are interpreted as alternative measure of the resource constraint facing the firm. Schwartz finds giving to be more responsive to cash flow than to

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<sup>46</sup>Ibid., p. 481.

income. He reasons that if giving is more responsive to cash flow than to income, it is profit oriented. In the cross-sectional analysis, a rather strong relationship is exhibited between giving and advertising expenditure. This Schwartz interprets as further support of the profit motive. He argues that "factors which lead some firms to advertise more than others can also cause them to give more."<sup>47</sup> Overall, Schwartz's findings are inconclusive insofar as determining any one best explanation for corporate giving.

#### Ralph L. Nelson

Nelson identifies three determinates of corporate giving in his time-series analysis of giving.<sup>48</sup> The first is corporate income. The second is the price of giving, as defined by Schwartz in the previous section. The third factor is a "group of other factors that effect giving, of which the giving propensity of corporations is presumably the major component."<sup>49</sup>

With respect to income, Nelson reasons:

It is legitimate to regard philanthropic contributions as an input in the profit-maximizing process, in the sense that they may directly or indirectly benefit the corporation and so contribute to long-run profit.

Although corporate giving is properly regarded as an input, there is little in the theory of the corporation to suggest what amount of giving might be optimal. It will be taken as a working hypothesis that the size of giving, other factors taken into account, is proportional to the size of corporate activity, that is, the scale elasticity of giving is one.<sup>50</sup>

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<sup>47</sup> Ibid., p. 482.

<sup>48</sup> Ralph L. Nelson, Economic Factors in the Growth of Corporation Giving (New York: National Bureau of Economic Research and Russell Sage Foundation, 1970).

<sup>49</sup> Ibid., p. 8.      <sup>50</sup> Ibid., pp. 38-39.

Nelson's evaluation of the price effect differs from that of Schwartz. Nelson holds that any exhibited relationship between giving and price changes can be fully consistent with the profit motivation for giving. Given the indefinite and unpredictable ways in which corporate giving may positively affect firm profits, "the more important is likely to be the immediate and certain tax saving that accompanies such expenditures."<sup>51</sup>

In addition to the scale and price effects, Nelson attempts to measure the influence of other factors. He reasons that changes over time in corporate attitudes toward giving might be the most important. In this regard, Nelson cites the liberalization of legal restraints on corporate giving and the increased number of corporate officials voicing their support of corporate giving.<sup>52</sup> Implicit in this discussion is the concept of corporate social responsibility.

Nelson employs multiple regression analysis to test the strength of these factors. His data source is the IRS Statistics of Income series for the years 1936 to 1963. The regression analysis supports Nelson's hypothesis concerning the scale effect. The scale elasticity values that he obtains are close to one. With regard to the price effect, "the observed response of contributions to changes in tax rates (i.e., "price") produced elasticity coefficients that ranged around -1.0. This finding suggests that tax rate changes . . . were an important factor in explaining the variation in giving."<sup>53</sup> To measure the influence of attitudinal changes on giving, Nelson includes a proxy

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<sup>51</sup>Ibid., p. 42.    <sup>52</sup>Ibid., pp. 43-47.    <sup>53</sup>Ibid., p. 9.

trend variable in his analysis. Finding a significant relationship between the trend variable and giving, he concludes "that developments association with the passage of time, other than scale and price, made an important contribution to the growth of giving."<sup>54</sup>

Nelson extends his examination of corporate giving with a cross-sectional analysis. The analysis is conducted with data contained in the IRS Source Book and is limited to the minor industry classes in the manufacturing sector. Nelson's multiple regression model specifies six independent variables. They are, by industry: (1) the number of firms in each industry, (2) before-tax income, (3) net worth, (4) officers' compensation, (5) dividends, and (6) industry employment.<sup>55</sup>

Nelson devotes considerable attention to the scale effect. Possibly, this is because the scale elasticity values obtained in the cross-sectional analysis are somewhat inconsistent with those noted in the time-series analysis. In question is "the broad empirical finding that, as corporate size increases, the percentage of income given declines."<sup>56</sup> Nelson examines biases in the data that might lead to this result and employs alternative definitions of income to demonstrate that larger firms are just as generous, if not more so, than smaller firms.

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<sup>54</sup>Ibid., p. 10.

<sup>55</sup>Ibid., p. 60. Employment figures are not disclosed in the Source Book. Nelson relies on another source for industry employment. This and other aspects of the employment variable are discussed in Chapter IV of the present study.

<sup>56</sup>Ibid.

Overall, he concluded, "when allowance is made for the biases . . . , the inference of a scale elasticity not far from +1 appears to be reasonable."<sup>57</sup>

Nelson does not discuss his findings concerning the relationship between giving and the number of firms in each industry. However, the correlation coefficients that he obtains are all positive. For reasons that are examined in Chapter III, a negative relationship between giving and the number of firms in an industry would have been expected. The relationship between giving and net worth is inconclusive in Nelson's analysis, probably due to statistical problems.<sup>58</sup> Employment has a positive and significant effect on giving. The result might be expected since corporate giving, particularly in the local community, benefits the firm's employees in many instances. This may increase labor productivity on the job, a fact probably recognized by the firm. Finally, Nelson finds a rather high correlation between giving and dividends. He offers two alternative explanations for this result. First, it may simply be due to the high correlation of dividends to other variables, mainly income and net worth. The second explanation is that corporate managers tend to change dividends and giving in parallel fashion, at least to the extent of avoiding increases in giving during a period when dividends are unchanged or even decreased.<sup>59</sup>

Armen A. Alchian and Reuben Kessel

Alchian and Kessel examine the behavior of individuals within regulated firms.<sup>60</sup> They provide an interesting explanation of non-profit

<sup>57</sup>Ibid., p. 66.    <sup>58</sup>Ibid.    <sup>59</sup>Ibid., pp. 68-72.

<sup>60</sup>Armen A. Alchian and Reuben A. Kessel, "Competition, Monopoly,

maximizing behavior by decision-makers in these firms. Alchian and Kessel do not expressly treat corporate giving. However, their paper contains implications that assist in understanding corporate giving.

Alchian and Kessel hypothesize that the monopolist may engage in "utility maximizing through non-pecuniary gains."<sup>61</sup> This occurs when pecuniary profits cannot be maximized because of the fear of regulation. Several examples of utility maximizing through-the-firm are given, some involving corporate giving.<sup>62</sup> The Alchian and Kessel paper expands the scope of Schwartz's explanation of corporate giving as through-the-firm consumption. Further implications of the Alchian and Kessel argument apply to employee giving as a condition of employment. They are examined in Chapter III.

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and the Pursuit of Money," in Aspects of Labor Economics (Princeton, NJ: Princeton University Press for National Bureau of Economic Research, 1962), pp. 157-75.

<sup>61</sup>Ibid., p. 163.

<sup>62</sup>Ibid., pp. 164-67.

## CHAPTER III

### THEORETICAL IMPLICATIONS OF CORPORATE GIVING

This chapter contains three sections. The first examines the economics of corporate giving. It specifies an economic model of giving. The second considers employee giving as a condition of employment. The final section summarizes the findings of a survey that was conducted as part of this study.

#### Corporate Giving

Descriptions of corporate giving as charitable or philanthropic are incorrect if strict definitions of the terms are employed. The firm is without emotion;<sup>1</sup> it cannot possess the motives that result in altruistic behavior. Although a "person" in the eyes of the law, the corporation does not act on its own, except through the direction of humans. Thus, when corporate giving is viewed as an activity of the firm, separate and apart from the motives of its decision makers, it cannot properly be termed either charitable or philanthropic. Additional support for this seems to be provided by law. As a creation of the state, corporations can engage only in those activities allowed by law. At

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<sup>1</sup>Bert S. Prunty, Jr., "Love and the Business Corporation," Virginia Law Review 46 (April 1960): 467-76.

present, corporations may enter the charity market only if some benefit, however indirect, accrues to them as a result of their giving.<sup>2</sup>

Previous studies suggest three different motives for corporate giving. They are: (1) through-the-firm consumption, (2) corporate social responsibility, and (3) profit maximization. Each accounts for some giving. Conceivably, all three are involved in any one particular instance of corporate giving.

The first motive views corporate giving as a substitute for individual personal giving. Apparently, there is only one consistent explanation of this motive. It is that corporate managers or owners substitute corporate giving for personal giving because of relative cost savings. Assuming a greater marginal tax rate for the firm than for the individual, the after-tax cost of a corporate gift is less than that of a personal gift of equal amount.<sup>3</sup> In addition to tax-related cost savings, Alchian and Kessel suggest that some giving involves no cost to the firm. This occurs when the firm does not maximize profit because of the fear of regulation. The difference between maximum profit and the acceptable "regulated" profit is available to individuals for utility maximizing within the firm. As previously mentioned, corporate giving is an example of this. Overall, the through-the-firm consumption motive

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<sup>2</sup>Ibid., pp. 471-76.

<sup>3</sup>If corporate giving were not tax deductible, it is unlikely that the firm's owners or managers would substitute it for personal giving. A donor has less control over the disposition of corporate giving than his own personal giving. In addition, the donor realizes less personal recognition when corporate giving replaces personal giving. Apparently, the tax-related cost savings outweigh the loss of control and recognition.

reflects the behavior of individuals using the firm as a conduit for their giving. As such, this motive differs from the social responsibility and profit motives.

Corporate giving due to the social responsibility motive is independent of personal giving motives. Because of its economic position and power, the firm incurs responsibilities to various groups other than its stockholders. Accordingly, corporate giving is undertaken as an act of the firm, to fulfill the firm's responsibilities. One of the firm's most direct responsibilities appears to be to its employees. Alternatively, Eells emphasizes the indirect corporate responsibility of maintaining a balance between private and public sectors. Both of these aspects of corporate social responsibility are examined later in this chapter.

The profit motive for corporate giving is also independent of personal giving motives. A wide range of profit-increasing effects can be anticipated through giving. Although indirect and remote in many instances, corporate giving is capable of affecting profits positively in either the short-run or long-run.<sup>4</sup> In a dynamic environment, risk and uncertainty prevail concerning future changes in social, political, and economic factors which affect profits. It is reasonable to expect that corporations attempt to influence these factors. When the factors have an indirect effect on profits, the firms' attempts to influence

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<sup>4</sup>Giving which is accompanied by publicity or advertising, or which immediately improves the recipient's well being, seems to have greater potential for improving short-run profits. Alternatively, giving for social, technical, or medical research tends to produce results randomly, over extended periods of time, having a long-run effect on profits.

the factors may be indirect as well. In certain instances, corporate giving may be the only way for firms to influence non-economic factors.

### An Economic Model of Corporate Giving

This section presents a model of corporate giving. It is tested in Chapter V using cross-sectional, aggregate industry data. The model is specified accordingly.

The model examines the response of corporate giving to six independent variables. The independent variables are: (1) the number of firms in an industry, (2) profits, (3) employment, (4) officers' compensation, (5) dividends, and (6) advertising expenditure. The response of giving to these factors provides some indication of the importance of the three motives described above.

#### Number of firms

Previous studies indicate that corporate giving will not be observed in a perfectly competitive market. As a firm's market power increases, its capacity for giving increases because of excess profits. Thus, industry structure is expected to affect giving. The number of firms in each industry is included in the model to measure industry structure. In view of the above discussion, a negative relationship is expected between corporate giving and the number of firms in each industry.

By itself, the number of firms in an industry does not provide a clear indication of market structure. Several other factors determine the extent of competition, and, therefore, excess profits, in

an industry. Measures of these factors are not readily available. The number of firms in each industry is available, and it is, at least, a reasonable indication of market structure. However, due to its limitation, the relationship between giving and market structure, as measured by the number of firms in an industry, is not expected to be significant.

### Corporate profits

The relationship between corporate giving and profit levels is expected to be positive and highly significant.<sup>5</sup> Corporate giving is not a necessary expenditure for normal business operations. The firm must earn normal profits to survive in its industry. Therefore, corporate giving is limited to the economic profits realized by imperfectly competitive firms.

Corporate managers tend to view profit as a major determinate of giving. To some extent, their giving decisions probably rely on the firm's past giving experience. A reasonable method to use when comparing giving over time is to express it as a percentage of profits. This method provides a convenient rule-of-thumb when the effects of giving cannot be easily measured by the decision makers.

The positive relationship between giving and profits seems consistent with all of the motives for giving described above. Nelson

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<sup>5</sup>Nelson uses the terms "income" or "net income" to represent profit. The Source Book uses the same terms to measure total revenue minus total cost. This study prefers the use of "profit" to signify the same. Chapter IV provides a statistical definition of the profit variable that is used in this study.

looks at the elasticity of giving with respect to changes in profit. He hypothesizes a scale elasticity value of one. However, examination of the motives for giving offers alternative predictions of the scale elasticity value.

When giving is motivated by through-the-firm consumption, the scale elasticity should be less than one. This is due to two factors. First, small, owner-controlled corporations tend to take greater advantage of the tax savings of corporatr giving. Nelson describes the shift of personal giving to corporate giving in family-controlled firms.<sup>6</sup> The influence of family control and personal motives is less in larger firms. Second, decision-making costs of corporate giving increase as firm size increases. They must agree to, and be satisfied by, corporate giving in the large firm. Thus, the costs of pursuing a balanced giving program are proportionately greater for a large firm than for a small firm. Decision-making costs are minimal for the firm that is owned and operated by one person. In effect, the corporation gives to whomever, and in the amount, decided upon by the single owner-manager. Both of these factors tend to make corporate giving inelastic with respect to profit.

If social responsibility accounts for corporate giving, the scale elasticity of giving should be greater than one. An apparent implication of the social responsibility concept is that large corporations have proportionately greater responsibilities than small firms. Large corporations would give realtively more than small firms to fulfill

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<sup>6</sup>Nelson, Economic Factors, pp. 32-33.

their greater responsibilities. Thus, giving will be relatively elastic with respect to profits.

The scale elasticity of profit-motivated corporate giving is assumed to be one or less. A value of one is consistent with Nelson's view that large corporations are no more, or no less, generous than small firms. Alternatively, profit-motivated giving may be subject to economies of scale. If these economies are significant, profit-motivated giving will be inelastic with respect to profit. A discussion of these economies of scale is included below, under a separate heading.

### Employment

Employment is assumed to be a determinate of corporate giving. All three motives for giving may account for a correlation between giving and employment. However, the social responsibility and profit motives seem more likely. Thus, through-the-firm consumption is not considered in connection with the employment variable.

A positive relationship is expected between giving and employment. This is consistent with either the social responsibility or profit motives. The significance of the relationship should determine which motive is more important.

A strong, significant relationship between giving and employment supports the social responsibility motive. In accord with the social responsibility concept, the firm's employees are directly dependent on the firm. The monopsonist has responsibilities to its employees that the atomistically competitive firm does not have. Therefore, corporate

giving in relation to employment will be positive and significant when the social responsibility motive is involved.

When the profit motive is responsible for corporate giving, the relationship between giving and employment is not expected to be significant. Employee-related giving can affect profits positively by improving worker productivity, reducing absenteeism, and facilitating better labor-management relations. However, employee-related giving is only one of several avenues available to the firm whose goal is to increase profits through giving. Profit-motivated giving seems capable of either increasing revenues on the product side of the firm's market, or decreasing production costs on the factor side. In view of the industries considered in this study, corporate giving would seem to be more effective when aimed at the former. Thus, there is little reason to believe that profit-motivated giving is significantly related to employment.

#### Officers' compensation

Nelson assumes, and finds, a negative relationship between corporate giving and officers' compensation. He notes that the salaries paid to corporate officers reduce the firm's profits. Giving and officers' compensation compete as alternative expenditures of the firm. Thus, increases in officers' compensation reduce funds available for giving.<sup>7</sup> However, it is not clear that Nelson's data reflect the competition between giving and officers' compensation. The data used in this study are similar to Nelson's. In addition, Nelson does not

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<sup>7</sup>Ibid., pp. 60-66.

take account of the fact that corporate officers usually decide the amount of corporate giving.

Accordingly, this study hypothesizes a positive relationship between giving and officers' compensation. The reason for this relies on, and is a test of, the through-the-firm consumption motive for giving.

Corporate officers who decide giving amounts can effectively use corporate giving as a substitute for their personal giving. It seems reasonable to expect a direct relationship between corporate giving and the desired personal giving that is being replaced. Officers would tend to be more generous with corporate funds than with their own. Nevertheless, an increase in desired personal giving should induce more corporate giving. Concurrently, evidence indicates that personal giving is directly related to personal income. Households give more as income increases. Therefore, corporate officers will tend to substitute corporate giving for their personal giving in direct relation to their compensation.

The strength of this argument relies on the significance of the relationship between giving and officers' compensation. A highly significant relationship would support the through-the-firm consumption motive.

### Dividends

Industry dividend payments are included in the model to test the social responsibility motive. As in the case of officers' compensation, corporate giving competes with dividends as a use of corporate funds. This leads to the expectation of a negative relationship between giving

and dividends. However, the competition is internal to the firm and is not necessarily reflected in the aggregate data that this study uses.

In a cross-sectional study such as this, the relationship between giving and dividends is expected to be positive. Dividend payments satisfy the corporation's responsibility to its legal owners. Corporate giving fulfills the firm's responsibilities to other groups, in accord with the social responsibility concept. If firms accept the social responsibility concept, they will tend to change giving and dividends in a parallel fashion.

The elasticity of giving with respect to changes in dividends would be close to unity for the social responsibility motive to be valid. In addition, the relationship between dividends and giving is expected to be significant when the social responsibility motive is operative.

#### Advertising expenditures

A measure of industry advertising is included in the model to test the profit motive for giving. Schwartz finds a positive correlation between giving and advertising.<sup>8</sup> He considers the profit motive to be responsible for this result. This study holds a similar view.

A firm's public image can be an important factor in sales. Product promotion through advertising and enhancement of the firm's image through giving appear to yield similar results. As previously mentioned, giving can be an important factor in public relations.

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<sup>8</sup>Schwartz, "Philanthropic Contributions," p. 482.

Additionally, the firm may realize certain economies of scale in giving when advertising and giving are viewed as complementary inputs in the firm's profit maximizing process. This aspect is discussed below. This study does assume that giving and advertising are complements in the cross-sectional model. Accordingly, corporate giving should be positively and significantly related to advertising if such giving is profit motivated.

### Two additional considerations

#### Economies of scale in giving

Economies of scale in giving are referred to at two points in this section. Both references are in connection with the profit motive for giving. This study holds that profit motivated corporate gifts are subject to economies of scale in giving. Further, with respect to the firm, economies arise only when the firm's goal is to increase profits through its giving. Economies of scale in giving are interpreted to mean an increase in the efficiency of contributions, per dollar of giving, as the size of the corporate gift increases. The criteria used to measure efficiency is the per dollar profitability of corporate giving.

This discussion does not consider economies of scale which arise in the production of public goods provided by corporate giving. Such economies exist,<sup>9</sup> but they seem irrelevant to the individual corporate

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<sup>9</sup> Production economies seem to be most evident in capital intensive public goods. Examples are medical research which requires extensive physical facilities and social services that utilize specialized human resources.

donor. This is because corporate giving does not produce public goods. It is merely a transfer of dollars to an agency or foundation that is the actual producer. The producer is usually independent of the corporate donor and receives contributions from many donors. As such, there is little relationship between an individual corporate gift and the production efficiencies achieved by the agency or foundation.

As stated above, economies of scale in giving arise in connection with the profit motive. Presumably, large contributions have a proportionately greater effect on profits than do small contributions. Giving which attempts to increase revenues (i.e., by increasing product demand or customer goodwill) is most likely to yield economies to the firm.<sup>10</sup> Two factors would account for this. First, large contributions tend to attract proportionately more publicity than small contributions. Recipients of giving prefer large to small contributions. Accordingly, they would use relatively more resources to acknowledge large gifts, in order to encourage more in the future. Second, large contributors seem to promote and publicize their giving more effectively than do small contributors. A major consideration of this is the relationship between giving and advertising. Sizable promotion and publicity expenditures are likely to accompany profit-motivated giving.<sup>11</sup> This closely resembles product advertising, and both seek the same goal. Large scale

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<sup>10</sup>As previously mentioned, profit-motivated giving may reduce production costs by improving labor productivity or labor-management relations. However, economies of scale in giving seem unlikely in this connection.

<sup>11</sup>Manne provides two examples of this; see, Manne and Wallich, The Modern Corporation, pp. 90-91, 99-100.

economies in advertising exist and can be adapted to profit-motivated giving. Another source of economies of scale in giving is observed frequently. Firms combine product promotion with publicity of their giving in a single advertisement.

As previously mentioned, significant economies of scale in giving will tend to lower the elasticity of giving with respect to profits. In addition, the correlation between product advertising and profit-motivated giving will be highly significant if these economies result primarily through the complementarity of giving and advertising.

#### The price of giving

The price of giving is defined in Chapter II as the complement of the marginal tax rate. Nelson and Schwartz use time-series data to examine its relationship to corporate giving. The price variable is not relevant in a cross-sectional study such as this because the marginal tax rate is assumed to be constant. However, a brief examination of the price of giving is necessary to point out an oversight in previous studies. This oversight affects the definition of the profit variable that is included in this study's multiple regression model.

Nelson examines the scale and price effects of corporate giving in his time-series analysis. His price variable is as defined above. To measure the scale of corporate operations, he uses after-tax profits. Two biases seem to arise when after-tax profit is used. One directly affects the estimator of the scale effect. The other is indirect, in that it distorts the price effect.

First, the scale effect is assumed to reflect the response of corporate giving to changes in firm size. Presumably, changes in firm size result from changes in business operations. Nelson's choice of after-tax profit to measure firm size distorts the findings of his time-series analysis. This is because changes in after-tax profit are the result of two factors. The first is a change in business operations, which is what the scale effect seeks to measure. The second is a change in the marginal tax rate, which is external to the firm and does not reflect changes in business operations. Thus, changes in the marginal tax rate over time can alter firm size, as measured by after-tax profit, even though business operations are constant. An easy way to eliminate this bias is to use before-tax profit as the measure of firm size.

The second bias affects the measured price effect. Nelson correlates corporate giving to changes in the marginal tax rate-determined price of giving over time. The negative relationship that he finds is not, however, a pure price effect. Instead, it measures the net result of two separate, and opposing, effects. One is the pure price effect. Ceteris paribus, an increase (decrease) in the marginal tax rate lowers (raises) the price of giving and more (less) corporate giving is expected. The other effect is neglected by Nelson. It is an income effect which is reflected in the after-tax profit variable used to measure the scale effect. An increase in the marginal tax rate which lowers the price of giving also increases the firm's tax bill, thereby reducing after-tax profit. In accord with the scale effect, a reduction in after-tax profit reduces corporate giving. Thus, the price effect is biased when after-tax profit is used to measure scale. In

effect, Nelson does not specify his regression model in a manner which fully accounts for Slutsky-Hicks income and price effects. Once again, this bias can be effectively reduced by using before-tax, rather than after-tax, profit to measure scale.

While previous studies overlook the income effect produced by a change in the price of giving, evidence indicates that professional fund-raisers and donees do not. At least one national fund-raising organization stresses before-tax profits as the basis of corporate giving.<sup>12</sup> It encourages corporations to give a percentage of before-tax, rather than after-tax, profits. This organization argues that an increase in the marginal tax rate reduces after-tax profit which, in turn, tends to reduce corporate giving.

#### Employee Giving as a Condition of Employment

Previous studies note the occurrence of employee giving as a condition of employment. Some firms, as well as some nonbusiness organization, put considerable pressure on their employees to give to charitable causes. An employee's refusal to give may not result in dismissal, but it may mean limited promotion or disguised demotion. Social pressure, imposed by superiors or fellow workers, is another means of penalizing the noncontributors. None of the prior studies examine the firm's reasons for wanting this condition of employment.

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<sup>12</sup>This organization is the United Way of America. Its membership is made up of a majority of the United Way agencies in the U.S. It collects and circulates data reported by the individual agencies. Its reports also provide policy statements such as that described in the text above.

This section looks at two motives that may explain the occurrence of employee giving as a condition of employment. It relies on the previous section for much of its discussion.

Three assumptions are made with respect to both of the motives to be discussed below. The first is that the firm must have some degree of monopoly power in its market. The firm incurs costs when it requires employee giving.<sup>13</sup> In a purely theoretical view, the perfectly competitive firm cannot impose this employment condition. If it attempts to do so, it will not survive in its industry, in the long run. The costs associated with employee giving cannot be recovered by the profit-maximizing competitive firm. However, the firm that realizes excess profits in its operations is capable of absorbing the costs.

The second assumption is that voluntary giving is subject to the free-rider problem. Individuals may want the results of charitable or philanthropic giving. Yet, the utility that they realize is the same regardless of who pays to produce the results. This, of course, leads to a less-than-optimal amount of giving.

The final assumption is that there are alternatives to employee giving. Door-to-door campaigns and mail solicitation are available to charitable organization that seek individual contributions. Each alternative must overcome, by some means, the free-rider consideration.<sup>14</sup> The efficiency with which each does this is relevant to the discussion of employee giving as a condition of employment.

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<sup>13</sup>Ireland, "Charity Budgeting," pp. 33-35.

<sup>14</sup>Ibid.

### The Social Responsibility Motive

Based on prior discussion, employee giving as a condition of employment appears inconsistent with the social responsibility concept. Guided by social responsibility, the corporation is obliged to pay the full costs of fulfilling its responsibilities to other groups. However, the corporation is not responsible for all of the needs of these groups. Some charity and philanthropy would be necessary in the absence of corporations. While the firm has no responsibility to provide this directly, it may assume some responsibility for having it provided.

The socially responsible firm acquires a rather paternalistic role in relation to its employees. It may expand this role to encompass the welfare of its employees in matters outside the employer-employee relationship. Accordingly, the firm's paternalism may lead to employee giving as a condition of employment. This occurs because the firm recognizes the free-rider problem inherent in the voluntary provision of charity and philanthropy. Employees may require certain types of charitable activity or social services, but will not provide them voluntarily on an individual basis. Thus, the firm assumes a responsibility to force employees to contribute to the provision of these public goods. Compared to other methods of soliciting individual contributions, employee giving as a condition of employment appears to be more effective in reducing the free-rider condition. Door-to-door campaigns or mail solicitations are relatively weak. They do not involve an independent, ongoing relationship between the donor and solicitor, as is the case with employee giving.

Eells's argument for social responsibility seems applicable to employee giving as a condition of employment. In effect, the firm has a responsibility to maintain the balance of power between the private and public sectors. It assumes that government will take over the provision of charity and philanthropy if the private sector fails to do so. This possibility increases the firm's incentive to keep provision in the private sector.

If employee giving as a condition of employment does reduce the free-rider problem inherent in the voluntary provision of charity, the firm performs a function very similar to government. An advantage of this is that the public good is provided in the private sector without resort to formal governmental provision. The main disadvantage seems to be that the firm greatly influences the kinds, and amounts, of public goods that are provided. As Manne observes, there is no reason to believe that the corporate decision maker is any more effective than anyone else in making these decisions.<sup>15</sup>

#### The Profit Motive

An alternative motive for employee giving as a condition of employment relies on the profit motive for corporate giving. Just as the latter may affect profits in a positive manner, the former may accomplish the same result. The firm's image can be improved if it associates itself with community interests by sponsoring an employee fund drive within the firm. In part, employee giving as a condition of employment shifts individual giving from the home to the plant. The

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<sup>15</sup>Manne, "The 'Higher Criticism'," p. 414.

employee gives through payroll deduction at work instead of through a door-to-door campaign at his home. Thus, the firm acquires some publicity value for employee giving that would have occurred in any event.<sup>16</sup>

Another argument of the profit motive for required employee giving involves the credibility of the donor. Both corporate giving and required employee giving can produce indeterminate and unpredictable increases in profit over time. To the extent that the firm's customers or governmental regulators can be influenced by giving, employee giving may be more effective than corporate giving. This is because corporate giving is rather suspect. Individuals tend to question the motives of a large firm that gives to charitable or philanthropic causes. Large corporate gifts may intimidate the individual who gives to charity. Furthermore, even the largest of corporate gifts represent only a small percentage of before-tax profits. Alternatively, employee giving is a personal act. Individuals can relate to the amounts of, and motives for, employee giving. As a result, employee giving can have an unintentional, but positive, effect on firm profits. Customers may patronize a firm because they identify with its employees, not the firm itself. Likewise, governmental regulation of the firm may be influenced by employee giving, in consideration of the effect that such regulation will have on the firm's employees. The profit maximizing firm that

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<sup>16</sup>As previously mentioned, employee giving as a condition of employment appears to be more effective in reducing the free-rider problem. Thus, more giving would be expected from the individual at work than at home.

recognizes this will impose employee giving as a condition of employment in order to increase the firm's profits.

### United Way Questionnaire

#### Scope and Structure

A questionnaire was prepared and mailed to approximately 30 United Way agencies throughout the United States. Response was rather disappointing in that only 8 agencies returned their completed questionnaires. Of those returned, one did not contain responses to one group of questions. A copy of the questionnaire is found in Appendix A of this study. The appendix also contains a listing of the agencies contacted, those responding, and a detailed summary of the responses.

The questionnaire was sent to the executive directors of United Way agencies instead of corporate executives in charge of giving. As such, some advantages were realized. Although not directly involved in a corporation's decision to give, the executive director is vitally interested in the results of that decision. He is probably sensitive to the firm's motives for giving, due to his direct contact with the decision-makers. Accordingly, the professional fund-raiser should provide a reasonable, overall summary of giving motives. In addition, the number of firms that are indirectly included in the United Way survey far exceeds the number that could have been contacted directly. Finally, the problems inherent in selecting a relatively small, but representative, sample of corporations to survey directly favored the United Way questionnaire approach.

A disadvantage of the survey is that it considers only one form of corporate giving. Other recipients of corporate giving are excluded. In addition, the responses of the executive directors may not accurately reflect the motives for corporate giving. For whatever reasons, the responses may be self-serving to the executive director in his role as a professional fund-raiser. The ensuing summary and discussion of the responses should, therefore, be considered in light of these limitations.

The questionnaire contains three groups of questions. The first requests statistical data about corporate and employee giving to agency fund drives. The implications of these responses are discussed in this section. A second group of questions concerns the initiative and efficiency of company-sponsored employee fund drives. The final group concentrates on the giving motives of firms and employees participating in a fund drive. Additionally, the questionnaire asks the executive director for a definition of "pure charity," and provides space for additional comments and suggestions.<sup>17</sup>

### Survey Findings

#### Funds raised through fund drives

These questions yield three main results. First, approximately 87 percent of the corporations that gave to United Way agencies also sponsored employee fund drives within the plant. Second, the firms that sponsored employee fund drives accounted for more than 97 percent of all

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<sup>17</sup> As might be expected, the responses did not provide any outstanding new definitions of charity. Nor are any of the comments and suggestions of value to this study.

corporate giving to United Way agencies. Finally, employees gave approximately 30 percent more than did their sponsoring firms.

The findings indicate that the United Way is primarily a vehicle for employee giving. Most instances of corporate giving are accompanied by employee giving, presumably as a condition of employment. Firms that sponsor employee fund drives give proportionately more than those that do not. Conceivably, the firm must demonstrate its willingness to give in order to encourage employees to give.

These findings would support the social responsibility motive for employee giving as a condition of employment. United Way agencies provide charitable activities and social services predominately at the local community level. As such, employees can see, and benefit directly from, the results of their giving. Accordingly, employees should pay for the results through their giving. As noted above, employees do contribute more dollars to United Way agencies than do their employers. However, the profit motive for employee giving cannot be dismissed. The findings do not disclose the value of publicity or goodwill that the firm derives from its employees' giving. This may be substantial in some communities.<sup>18</sup>

#### Initiative and effectiveness

The second question group inquires about the organization and efficiency of employee fund drives within the plant. It is not clear

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<sup>18</sup>The United Way executive director tends to remain in the background during a fund drive. For each annual campaign, a chairman and staff are selected, usually from among prominent business and community leaders. Their organization of the fund drive is accompanied by a significant amount of publicity for the firms they represent.

that these responses are reliable. Implicitly, the responses reflect the executive director's evaluation of his own performance.<sup>19</sup> Therefore, only one finding from this group is discussed here. It seems least likely to be biased.

Almost unanimously, the responses indicate that firms do not normally approach the United Way agency and ask to participate in the fund drive. Instead, firms initiate employee fund drives only after being solicited by the agency. This finding tends to contradict the social responsibility motive for employee giving. Presumably, the firm that wants to fulfill its responsibility to employees will voluntarily approach the United Way in order to initiate an employee fund drive.

#### Motives for giving

These questions seek to determine the motives for corporate and employee participation in a United Way fund drive. Three donor classes are considered: (1) the corporation, (2) the corporate executive, and (3) non-management employees. Each question lists several alternative motives that may be responsible for a particular donor's participation in, or giving to, a fund drive. The executive director is asked to rank the motives in order of importance. Point values are assigned to the individual rankings and then totaled to determine the relative importance of each motive.

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<sup>19</sup>The agency's executive director is partly responsible for initiating new employee fund drives in firms. If the majority of firms initiated their own fund drives, there would be little justification for having an executive director for this function.

### The corporation

Three of the seven alternative motives for corporate giving stand out as being most important.<sup>20</sup> All three tend to support the social responsibility motive for giving. Two of the three involve the firm's relationship to its employees. The other motive is a statement of Eells's argument for private provision of social goods and services, as opposed to governmental provision. Thus, corporate involvement with the United Way appears to be motivated by the social responsibility concept, at least as perceived by United Way executive directors.

### The corporate executive

This question concerns the corporate executive's motives for participating in a fund drive, not his motives for giving. Corporate executives are "loaned" to the United Way agency by their firms. Their time is devoted to the agency's fund drive, instead of their employment duties. This represents a form of corporate giving, since the firm continues to pay the executive's salary while on loan. Thus, the corporate executive sacrifices very little when participating in the agency fund drive.

The survey findings indicate that self-interest is the major motive for executive participation. Specifically, the corporate executive anticipates some direct benefit from the United Way services that he assists in providing. The second and third ranked motives are approximately equal in importance, although they are well below the first motive. Interestingly, these two lesser motives are quite

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<sup>20</sup>See Appendix A.

dissimilar. The second ranked motive for executive participation is the desire to perform a charitable act. The third motive is to gain recognition in the community.

#### The employee

Two motives are primarily responsible for employee giving to a United Way fund drive. Both reflect the donor's self-interest. First, the employee expects to derive some direct benefit from the services provided by United Way. Second, the employee seeks to avoid social pressures that would be imposed on the nongiver by fellow workers or superiors.

## CHAPTER IV

### DATA AND METHODOLOGY

#### Data

The Corporation Source Book of Statistics of Income (Source Book hereafter) is the primary data source for this study's empirical examination of corporate giving. Other data sources are cited in Chapter V, but their usage is relatively minor. This section describes the Source Book, its limitations, and its uses.

Source Book data coverage is for the period 1968-1970. As a general rule, all variables that rely on this source are average figures for the three years. Any exception to this is noted in the presentations of Chapter V and Appendix C.

#### Description

Each annual edition of the Source Book summarizes categorized income tax data collected from the federal income tax returns filed by U.S. corporations. The Source Book is a set of unpublished tables that is the basis of an annually published summary of corporate income tax data.<sup>1</sup> The IRS describes the Source Book as follows:

A complete Source Book consists of 500 to over 600 pages (depending on the year) in sections: (1) Introductory material; (2) statistics for all corporations with one page

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<sup>1</sup>U.S., Department of the Treasury, Internal Revenue Service, Statistics of Income, Corporation Income Tax Returns (Washington: Government Printing Office, published annually).

for each minor industry, statistics which group minor industries into about 60 "major" industries, and statistics for 12 industrial divisions, which are summaries of major industries into broad categories of industrial activity; (3) statistics for corporations with net income, in the same format as (2).<sup>2</sup>

Major industry data correspond to the two-digit industry classification level. Minor industry data correspond to the three-digit level. The Source Book conforms with the Standard Enterprise Classification code. Source Book data are grouped by industry according to the major activity of a corporation. Thus, the data represent enterprises or firms, instead of establishments or plants.

The financial items disclosed in the Source Book include major balance sheet and income statement accounts, income tax liabilities, and distributions to stockholders. All data are disclosed by minor industry, or aggregated groupings of minor industries, distributed by asset size classes.

#### Limitations of the Data

Financial data in the Source Book are disclosed on the basis of standard accounting practice, with due respect for IRS regulations. The accountant and tax collector treat such items as asset valuation and profits differently than does the economist. Thus, economic interpretation of Source Book data is necessarily subject to some qualifications. Some account of these qualifications is offered in other

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<sup>2</sup>U.S., Department of the Treasury, Internal Revenue Service, Corporation Source Book of Statistics of Income: General Description, Publication 647 (2-69), Revised 7-71 (Washington: Internal Revenue Service), p. 1.

sections of this chapter. The interpretation of findings in Chapter V attempts to reconcile, or at least recognize, other limitations imposed by the data.

Additional limitations of the data concern disclosure and changes in classification and disclosure over time. The first of these arises from the use of the Standard Enterprise Classification code. With respect to those firms that produce only one good, there is no problem. However, some corporations, particularly the larger ones, have diversified operations which extend into two or more industry classes, perhaps at the two-digit level as well as at the three-digit level. The IRS describes the problem caused by this in the following:

It should therefore be noted in using the Source Book, especially for recent years, that statistics for an industry may be either understated by amounts reported by corporations whose principal activity lies elsewhere, or overstated by amounts reported by corporations classified in the industry but having substantial operations in other industries.<sup>3</sup>

Another limitation involves the presentation of industry data by asset size classes. The number of firms included in a particular asset size class may vary from zero to several hundred. The data within each asset size class are aggregates for all the firms, with no statistical explanation of the variability of firms within that grouping. This obscures some information and perhaps makes some unrealistic assumptions about some of the firms within an asset size class.<sup>4</sup>

A final limitation arises because of classification changes over time. A significant change in the 1968 Source Book consolidates the number of minor industries that are disclosed. Prior to 1968, about 235

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<sup>3</sup>Ibid., p. 3.      <sup>4</sup>Johnson, "Corporate Philanthropy," pp. 490-91.

minor industries are detailed; "starting with 1968 some of the minor industries were combined to reduce the total number to 160."<sup>5</sup> This consolidation complicates the comparison of Nelson's findings with those of this study.

#### Data Usage

Chapter III describes the model of corporate giving that is tested in this study. The empirical analysis of Chapter V relies on Source Book data for all of the variables, except one. The exception is employment which is discussed later in this chapter.

The multiple regression model of Chapter V uses Source Book data for corporations which reported positive net income for the tax years under consideration. Excluding firms with operating losses follows the methodology of Nelson and Johnson. Their reasoning is similar and expressed by Nelson in the following:

Corporations with positive net income accounted for 98.6 percent of total contributions . . . , and so the loss in coverage from excluding corporations with losses is small. It is more than compensated for by the gain in comparability of giving-to-income percentages that are free from the fluctuations produced by period-to-period variations in the loss experience of corporations.<sup>6</sup>

In general, this approach applies to all Source Book data used in this study. However, there is one exception. Concentration ratios are computed with asset data for all corporations. This is discussed later in this chapter.

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<sup>5</sup>Internal Revenue Service, Source Book: General Description, p. 1.

<sup>6</sup>Nelson, Economic Factors, p. 4.

The independent variables that rely on Source Book data require little explanation. Most of these are disclosed separately in the Source Book. Others are the result of combining two or more Source Book data items. Thus, the number of firms in each industry, officers' compensation, and dividends are disclosed separately for each industry. The income variable is a combination of three data items: net taxable income, interest income on state and local government obligations, and interest paid. Net worth is determined by summing four capital and equity accounts. Advertising is measured by dividing advertising expense by sales, both of which are disclosed separately.

The "Contribution or Gifts" expense category disclosed in the Source Book is the dependent variable in the analysis of the next chapter. In all probability, the amounts recorded in this account represent firms' direct giving--the amounts received by donees.<sup>7</sup> Other expenses are incurred in connection with giving, but are not received by donees. Examples of these "indirect" expenses are such things as salaries paid to the firm's executives while on loan to a charitable fund drive, administrative expenses of handling payroll deductions of employees who give through company-sponsored fund drives, and wages paid to employees who solicit other employees on company time. These expenses are normally reflected in other operating expense accounts.

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<sup>7</sup>Some corporations may record their giving in ordinary expense accounts because of previous tax treatment of giving. For a detailed account of this aspect of corporate giving, see, Charles J. Gaa, The Taxation of Corporate Income (Urbana, IL: University of Illinois Press, 1944), pp. 163-67.

Thus, the contributions and gifts account tends to understate corporations' actual commitment of resources to corporate giving.

A final aspect of the dependent variable might be mentioned. The Source Book does not distinguish between the different forms of giving. A reasonable assumption is that monetary transfers account for the majority of corporate giving. Yet, some donations of company products, or even assets, are included as well, assessed at market value.

#### Methodology

The data are utilized in two fundamental ways. First, highly aggregated data are used to examine the extent and variation of giving between industrial sectors. Second, data for the minor industries in the manufacturing sector are used in a multiple regression model of corporate giving. For both purposes, some data are used as found in the Source Book. In other instances, data are adjusted to obtain more meaningful variables. Additionally, the variables in the multiple regression analysis are logarithmically transformed. This follows Nelson's method.<sup>8</sup> The resulting regression coefficients measure elasticity values.

The multiple regression model considers only the minor manufacturing industries. Nelson, using the same approach, states his reasons in the following:

The analysis was limited to the relatively homogeneous manufacturing sector because it was felt that intersectoral differences might obscure the effects of the variables examined

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<sup>8</sup>Nelson, Economic Factors, p. 60.

if the other industrial sectors were covered. Not only were the corporations in the manufacturing sector somewhat alike with respect to their production operations, but there was a large enough number of industries (121) on which to base the statistical analysis.<sup>9</sup>

There are fewer minor manufacturing industries included in the present study (76) because of the consolidation that took place in 1968.

However, this number seems sufficient for a valid statistical analysis.

The remainder of this section deals with three variables that require further explanation. Two of them, profit and employment, are part of the multiple regression model. The third is the concentration ratio which is examined separately in Chapter V, to determine its relationship to corporate giving.

#### Corporate Profit

Nelson examines three alternative measures of corporate profit. All are derived from Source Book data. "Net Income Before Taxes" is net taxable income plus income from tax-exempt securities. "Net Income After Taxes, After Gifts and Contributions" represents net income before taxes minus income taxes, plus the foreign tax and investment credits. The third is "Net Income After Taxes, Before Gifts and Contributions." To derive this, Nelson adds the net after-tax cost of giving to the second profit measure.<sup>10</sup> Nelson views it as the best expression of corporate disposable income.<sup>11</sup> He uses net income after taxes, before gifts and contributions as the profit variable in his time-series analysis of corporate giving. However, he includes net income before taxes in his cross-sectional analysis of the minor manufacturing

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<sup>9</sup> Ibid., p. 58.

<sup>10</sup> Ibid., p. 99.

<sup>11</sup> Ibid., p. 5.

industries. Nelson does not explain his reasons for choosing different profit measures for the two studies.

The present study adopts a measure of profit which differs from those defined by Nelson. It is net income before taxes, plus interest paid. This seems to come closest to the economist's definition of profit. In addition, its use avoids the distortions that may accompany after-tax profit measures. The tax-related income effect that is discussed in Chapter III would be slight in this study's cross-sectional analysis of corporate giving. However, there is little justification for including after-tax profit on any grounds. Thus, the tax-related income effect is avoided completely. Overall, before-tax profit, plus interest paid seems more consistent with economic theory than any of Nelson's alternatives.

#### Employment

Nelson examines the relationship between corporate giving and employment in his cross-sectional analysis.<sup>12</sup> The influence of employment on giving is discussed in Chapter III of this study. The multiple regression model in the next chapter includes employment as an independent variable. As such, this study's expression of employment differs substantially from that used by Nelson.

Nelson includes total employment for each minor manufacturing industry in his model. He uses the 1954 Census of Manufacturers as his source of employment. In contrast, this study expresses employment in each minor industry as a percent of total manufacturing employment. The

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<sup>12</sup>Ibid., pp. 67-68.

data source for this variable is the BLS Employment and Earnings.<sup>13</sup>

This source permits the calculation of employment figures for each minor industry for the years 1968-1970, the three years of Source Book coverage considered in this study. The three-year average employment figure is then expressed as a percent of total manufacturing employment. This method seems more consistent than Nelson's, which relates 1954 employment levels to averaged Source Book data for the period 1954-1957.<sup>14</sup>

Two problems arise in connection with the employment variable. Both are due to the use of a data source other than the Source Book. First, total employment in all corporations is reflected in the variable. The other variables that rely on Source Book data eliminate corporations that incur operating losses for the years considered. On a priori grounds, there is no reason to believe that the variation in interindustry employment, as a percentage of total employment, is any different for all corporations than for only the profitable firms.

The other bias is probably more severe. The Source Book data are classified according to the Standard Enterprise Classification code. However, the BLS classifies employment by industry according to the Standard Industrial Classification code. Because of the difference in classification, the total employment of firms reflected in a Source Book minor industry may differ from the employment figure found in Employment

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<sup>13</sup>U.S., Department of Labor, Bureau of Labor Statistics, Employment and Earnings: United States, 1909-72, Bulletin 1312-9 (Washington: Government Printing Office, 1973).

<sup>14</sup>Nelson, Economic Factors, p. 60.

and Earnings. As previously mentioned, the bias is probably greater now than in the past. Yet no statistical adjustment can be made for this. Thus, the bias is present, but it is assumed to be negligible in the analysis of the next chapter.

#### Concentration Ratios

Chapter V examines the relationship between corporate giving and industrial concentration. For this purpose, a set of concentration ratios is calculated using Source Book data. Simple regression analysis is employed to refine and test the predictions made by O. Johnson in his study. The measure that this study considers is the four firm concentration ratio (CR4 hereafter). Asset data are the basis of the CR4's.

Johnson's examination of giving and concentration is rather cursory. He graphically pairs contribution ratios with CR4 values that Stigler and Mansfield have determined.<sup>15</sup> There are several problems inherent in this. First, the CR4 values come from different sources and are calculated by different methods. Second, the time period is different for each set of CR4's. Finally, Mansfield uses the weighted average method for calculating his CR4 values. The weighted average method involves several problems and generally produces CR4 values that are unreliable. The problems inherent in the method are not detailed

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<sup>15</sup>George Stigler, Capital and Rates of Return in Manufacturing Industries (Princeton, NJ: Princeton University Press, 1963), pp. 214-15; and Edwin Mansfield, ed., Monopoly Power and Economic Performance (New York: W. W. Norton & Co., 1964), p. x.

here. Instead, the reader is directed to Boyle's 1973 article which examines the method and describes its weaknesses.<sup>16</sup>

To obtain CR4's for the minor manufacturing industries, this study relies on a method which is suggested by Boyle in the article cited above. This method permits the calculation of CR4's directly from Source Book data. The asset-size distribution of firms in the Source Book isolates the financial data of the largest firms in each industry. The CR4 for a particular industry is determined by dividing total assets of the four largest firms by total industry assets.

As previously mentioned, the number of firms in a particular asset-size class varies. When the four largest firms cannot be identified with respect to asset data, alternative estimation techniques are necessary. Boyle describes these procedures,<sup>17</sup> and Appendix B of this study indicates their usage in this work. Overall, the Boyle method is followed in the calculations and Source Book data is utilized to the greatest extent possible.

For the time period covered by this study, it is possible to calculate CR4 values for 60 of the 76 minor manufacturing industries. Alternative data sources are used to determine the remaining CR4's. Appendix B details the CR4 values, by industry, and describes the alternative data sources that are used.

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<sup>16</sup>Stanley E. Boyle, "The Average Concentration Ratio: An Inappropriate Measure of Industry Structure," Journal of Political Economy 81 (March/April 1973): 414-26.

<sup>17</sup>Ibid., pp. 422-25.

As an alternative method for calculating the CR4, Boyle's method is well suited to the present study. The analysis of giving and concentration is more consistent because the CR4 values are derived from the same data source that yields most of the other variables examined in this study.

## CHAPTER V

### EMPIRICAL FINDINGS

#### Corporate Giving

The first section of this chapter presents the finding of the multiple regression model of corporate giving. The next two sections examine the variability of corporate giving with respect to industrial sectors and firm size. A final section presents the findings of a simple regression analysis of the relationship between corporate giving and industrial concentration.

#### The Model

The multiple regression model of corporate giving is specified in Chapter III. It is tested with cross-sectional data for the minor manufacturing industries. Table 1 presents the test results. The ordinary least-squares method is used to estimate the regression coefficients. All data are logarithmically transformed so that the coefficients represent elasticity values.

#### Giving and market structure

The relationship between corporate giving and market structure, as measured by the number of firms in an industry, is negative. This result is as implied by economic theory. A decrease in the number of firms in an industry, ceteris paribus, decreases competition. This, in turn, raises the economic profits of the remaining firms. Assuming

TABLE 1

REGRESSION EQUATION RELATING CORPORATE GIVING TO INDEPENDENT VARIABLES,  
LOGARITHMICALLY TRANSFORMED (CROSS-SECTIONAL DATA)<sup>a</sup>

Corporate Giving	Constant Term	Number of Firms	Profit	Employment	Officers' Compensation	Dividends	Advertising/Sales
$X_1$	= -2.458	-0.164 $X_2$ (-1.376)	+0.584 $X_3$ ** (2.906)	+0.00012 $X_4$ (0.00167)	+0.516 $X_5$ * (2.587)	+0.169 $X_6$ (1.321)	+0.196 $X_7$ ** (3.891)

<sup>a</sup>Based on cross-sectional data for 76 manufacturing industries for the three year period, 1968-1970.

\* Indicates significance at the 98 percent confidence level.

\*\* Indicates significance at the 99 percent confidence level.

NOTE:  $R^2 = 0.9041$ ; "t" statistics in parentheses.

DEFINITIONS:  $X_1$  = total gifts and contributions of corporations in the industry, 1968-1970 ( $\text{Log}_{10}$ );  $X_2$  = number of corporations in the industry, 1968-1970 ( $\text{Log}_{10}$ );  $X_3$  = total profit before taxes, plus interest paid, corporations in the industry, 1968-1970 ( $\text{Log}_{10}$ );  $X_4$  = total industry employment as a percentage of total manufacturing employment, 1968-1970 ( $\text{Log}_{10}$ );  $X_5$  = officers compensation of corporations in the industry, 1968-1970 ( $\text{Log}_{10}$ );  $X_6$  = total dividends paid, corporations in the industry, 1968-1970 ( $\text{Log}_{10}$ );  $X_7$  = total advertising expense divided by total sales, corporations in the industry, 1968-1970 ( $\text{Log}_{10}$ ).

that giving motives are equally distributed among firms, the more profitable firms will give more.

The regression coefficient indicates that corporate giving is highly inelastic with respect to changes in the number of firms in an industry. This may reflect the limitations of the variable as a measure of industry structure. As predicted, the relationship between giving and structure is not highly significant. However, it is significant at the 80 percent confidence level, which is higher than had been expected.

In contrast, Nelson finds a positive relationship between giving and the number of firms in an industry. As previously mentioned, he offers no explanation for this finding.

#### Giving and profit

The relationship between giving and profit is positive and highly significant. The coefficient of 0.584 tends to rule out the social responsibility motive for giving. Corporate giving would have to be elastic with respect to profit in order to accept the social responsibility motive.

The finding is consistent with either of the two other motives for corporate giving, through-the-firm consumption or profit maximization. There is reason to believe that the estimated coefficient is biased downwards. As explained by Nelson, corporate profits tend to be systematically and increasingly understated, the smaller the firm.<sup>1</sup> In smaller firms, owners usually manage the firm

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<sup>1</sup>Nelson, Economic Factors, pp. 63-66.

as well. Income tax considerations make it advantageous for them to take their return in the form of salary, rather than dividends. Thus, officers' compensation includes some return on invested capital, in addition to the payment for managerial labor services. The same may be true in larger firms. However, the increased separation of ownership and management in larger firms lessens the opportunity for this to occur. Therefore, a proportionately larger amount of profit is shifted to officers' compensation in smaller firms. The effect of this is to reduce the regression coefficient relating corporate giving to profit. A coefficient value closer to one would tend to support the profit motive for corporate giving.

Overall, the relationship is as expected. Profit is a major determinate of corporate giving. The regression finding does not clearly distinguish the most important motive for giving. However, when the bias described above is taken into account, the profit motive appears to be most acceptable.

#### Giving and employment

The correlation between giving and employment is only slightly positive (+0.00012), and is not significantly different from zero. This finding is somewhat surprising in view of Nelson's results. He obtains regression coefficients in the range of 0.21-0.27, all of which are significant.

As previously stated, the employment variable is not taken from the Source Book. Nelson uses a different source for employment than does this study. In addition, this study expresses the variable in a

different manner than does Nelson. Finally, the relationship of giving to employment is biased because Source Book data and the employment data used in this study are compiled under different classification systems, as discussed in Chapter IV. This bias is probably more severe in the present study (1968-1970) than in Nelson's study (1954).<sup>2</sup>

Ignoring the possible data bias, employment is not significantly related to corporate giving. As hypothesized in Chapter III, this finding supports the profit motive for giving. The firm which attempts to increase its profit through giving can find more profitable avenues for its contributions than employee-related giving.

#### Giving and officers' compensation

The relationship between giving and officers' compensation is positive and significant at the 98 percent confidence level. The regression coefficient (0.516) implies that a 10 percent increase in officers' compensation will cause corporate giving to rise by approximately 5 percent. This finding indicates that the through-the-firm consumption motive influences those persons who are most responsible for the firm's giving.

In part, the strong relationship between giving and compensation may be due to a factor discussed above. A portion of officers' compensation probably represents return on invested capital, particularly in smaller firms. The shift of profits into officers'

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<sup>2</sup>This study attempted to improve the employment variable by using a different data source than Nelson's. Likewise, the expression of employment is assumed to be more reliable than that of Nelson. Thus, only the classification bias is assumed to have an adverse effect on the regression results. As discussed in Chapter IV, the magnitude of this bias is indeterminate, and assumed to be negligible.

compensation, for income tax purposes, overstates compensation proportionately more in smaller firms. This will effectively overstate the observed regression coefficient.

It is difficult to explain the difference between this finding and Nelson's. As previously mentioned, Nelson observed a negative and significant relationship between giving and compensation. He notes that multiple regression techniques were used to adjust the compensation variable. However, he does not specify what the techniques are. He does indicate that the negative correlation results from their usage.

#### Giving and dividends

The relationship between giving and dividends is positive, as expected. However, the regression coefficient is not highly significant.<sup>3</sup> As a test of the social responsibility motive, this finding does not support that motive. Giving is highly inelastic with respect to changes in dividends (0.169). A somewhat greater response of giving to changes in dividends would be expected when the social responsibility motive is operative.

In contrast, Nelson obtains a larger positive coefficient (0.709) which is highly significant. Thus, his finding would support the social responsibility motive for giving. However, his discussion does not arrive at this conclusion.<sup>4</sup>

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<sup>3</sup>It is statistically significant at the 80 percent confidence level.

<sup>4</sup>Nelson, Economic Factors, pp. 68-69.

### Giving and advertising

The positive and highly significant correlation between giving and advertising provides evidence that the profit motive is responsible for corporate giving. This finding is consistent with Schwartz's findings. Nelson does not include advertising as an independent variable in his study.

The positive regression coefficient demonstrates the complementary nature of giving and advertising in the firm's profit maximizing process. Giving is relatively inelastic with respect to changes in advertising (0.196). This may result partially from the existence of economies of scale in giving which is motivated by profit maximization. The highly significant relationship between giving and advertising supports the view that economies of scale in giving exist. Such a conclusion would also explain the relatively inelastic response of giving to changes in profit, which is noted earlier in this section.

### Overall comments

Empirical testing of the model of corporate giving yields results that are generally consistent with the hypothesized relationships. The observed coefficient of multiple determination ( $R^2 = 0.9041$ ) indicates that most of the variability in corporate giving can be explained by the independent variables included in the model. Appendix C of this study provides a fuller disclosure of the empirical results.<sup>5</sup>

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<sup>5</sup>Appendix C provides tables which are comparable to Nelson's study.

Viewed as a whole, the empirical results tend to support the profit motive for corporate giving. None of the observed regression coefficients offer much evidence to support the social responsibility motive. This leaves the profit and through-the-firm consumption motives as competing explanations. The signs of all the coefficients are as predicted in Chapter III. This result tends to favor the profit motive.

Finally, the empirical results are affected by various statistical and data biases. The data problems have been detailed previously. An obvious, and perhaps significant, statistical problem is the existence of multicollinearity in the data. Several of the independent variables are highly correlated to each other. This problem is inherent in the data that is used and cannot be eliminated.

#### Corporate Giving by Industry Sector

Table 2 compares corporate giving among the major industrial sectors, for the period 1968-1970. This table corresponds to one which Nelson compiled for the years 1954-1957.<sup>6</sup> Corporate giving is expressed as a percentage of profit, under various definitions of profit. The table uses aggregate sector data for all corporations.

Column 1 of the table provides a rough measure of average firm size in each sector. In columns 2-5, corporate giving is expressed as a percentage of the variously defined measures of corporate profit. Nelson cites the discrepancy between accounting and economic measures of profit as his reason for using different interpretations of profit.<sup>7</sup>

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<sup>6</sup>Nelson, Economic Factors, p. 59.    <sup>7</sup>Ibid., p. 60n.

TABLE 2

GIFTS AND CONTRIBUTIONS AS PERCENTAGE OF CORPORATE PROFIT AND OF  
DISTRIBUTION OF CORPORATE PROFIT, ALL CORPORATIONS  
AND EIGHT MAJOR INDUSTRIAL SECTORS, 1968-1970

Category	Average Annual Before-Tax Profit per Corporation (in thousands) (1)	Gifts and Contributions as Percentage of:			
		Corporate Profit		Distributions of Profit Measured as:	
		Before Tax (2)	After Tax (3)	Contributions and Dividends (4)	Contributions, Officers' com- pensation, and Dividends (5)
All corporations	\$ 49.6	1.18	1.95	2.87	1.51
Agriculture, forestry, and fisheries	5.9	1.43	2.51	3.33	0.76
Mining, quarrying	121.5	0.48	0.57	0.67	0.56
Construction	12.6	1.47	2.63	7.40	0.78
Manufacturing	199.2	1.37	2.34	3.52	2.35
Public Utilities	141.1	0.89	1.75	1.46	1.21
Trade	20.4	1.37	2.38	6.19	1.26
Finance, insurance, and real estate	39.5	0.79	1.05	1.67	1.02
Services	\$ 6.4	1.84	4.62	5.01	0.66

SOURCE: U.S. Internal Revenue Service, Statistics of Income, Corporation Income Tax Returns, 1968, 1969, 1970.

The table discloses a wide variation of relative giving efforts among the different industrial sectors. This is true under any of the definitions of profit. However, there is a significant reordering of giving as a percentage of profit when columns 2 and 5 are compared. If giving is measured relative to the accountant's before-tax profit measure, the service sector is relatively more generous than the others. Five of the sectors give relatively more than the average percentage for all corporations. Alternatively, when giving is expressed as a percentage of profit distributions (column 5), with officers' compensation considered as return on invested capital, manufacturing is the most generous sector. Further, only the manufacturing sector gives a larger percentage than the average for all corporations.

Thus, the generosity of industrial sectors varies widely, and depends on how a sector's ability to give is defined. The table does not disclose any definite relationship between giving effort and the average firm size, as measured by average before-tax profit. This holds for all of the various definitions of corporate profit.

#### Corporate Giving and Firm Size

Table 3 also corresponds to a table prepared by Nelson.<sup>8</sup> It utilizes Source Book data for all corporations. Corporate giving is expressed as a percentage of profit, variously defined, and sales. The percentages are computed with data contained in the asset size distribution of data found in the Source Book. Profit is defined under alternative formulations for the reason cited in the previous section.

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<sup>8</sup>Ibid., p. 62.

TABLE 3

GIFTS AND CONTRIBUTIONS AS PERCENTAGE OF CORPORATE PROFIT,  
VARIOUSLY DEFINED, AND SALES, BY SIZE OF ASSETS,  
ALL CORPORATIONS, 1969

Asset Size Class (in millions)	Contributions as Percentage of Profit Defined as:			
	Before- Tax Profit (1)	Officers' Compen- sation, Contribu- tions, and Dividends Paid (2)	Officers' Compen- sation, Contri- butions, Dividends and Retained Earnings (3)	Contri- butions as Per- centage of Sales (4)
One dollar to \$0.050 <sup>a</sup>	b	0.08	0.09	0.01
\$0.050 to 0.100	0.88	0.22	0.21	0.02
0.100 to 0.250	0.91	0.42	0.34	0.02
0.250 to 0.500	1.22	0.71	0.58	0.03
0.500 to 1.00	1.40	1.13	0.86	0.04
1.00 to 5.00	1.57	2.01	1.44	0.05
5.00 to 10.00	1.51	2.68	1.76	0.06
10.00 to 25.00	1.57	2.96	1.94	0.08
25.00 to 50.00	1.51	2.88	1.95	0.08
50.00 to 100.00	1.46	2.72	1.94	0.09
100.00 to 250.00	1.38	2.63	1.93	0.10
250.00 and over	1.14	2.05	1.62	0.09

<sup>a</sup>The zero asset size class is omitted.

<sup>b</sup>Before-tax profit is negative in this asset size class. See Appendix C.

SOURCE: U.S. Internal Revenue Service, Statistics of Income, 1969, Corporation Income Tax Returns (Washington, D. C., 1973), Table 6, pp. 92-93.

Sales data are viewed as an alternative expression of overall firm activity.<sup>9</sup>

The findings of Table 3 are similar to what Nelson disclosed for 1957. With respect to corporate giving as a percentage of profit (columns 1-3), firms in the \$5- to \$50-million asset range tend to be more generous than smaller or larger firms. When giving is expressed relative to sales (column 4), the most generous firms are those in the \$100- to \$250-million asset range. Overall, the findings do not support Nelson's hypothesis that corporate giving is proportionate to firm size. Instead, they tend to confirm O. Johnson's predictions.<sup>10</sup> Table 3 offers evidence for the profit motive for corporate giving if the variability of giving with regard to firm size results from the factors cited by Johnson.

#### Corporate Giving and Industrial Concentration

Johnson offers a cursory examination of giving and concentration.<sup>11</sup> This study attempts to expand and improve upon that work. As described in Chapter IV, CR4 values were calculated for each of the 76 minor manufacturing industries for the period 1968-1970. The relationship between corporate giving and concentration is tested by means of simple correlation analysis. The findings presented in this section are not very significant. However, they provide some indirect support for

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<sup>9</sup>Ibid., pp. 63-64.

<sup>10</sup>O. Johnson, "Corporate Philanthropy," pp. 498-502.

<sup>11</sup>Ibid., pp. 494-95.

parts of Johnson's analysis. As such, they tend to bolster the profit motive for giving.

The calculated CR4 values range from 9.66 percent to 93.63 percent in the minor manufacturing industries during 1968-1970.<sup>12</sup> A simple correlation between corporate giving and concentration was performed first for all industries. However, Johnson maintains that the relationship between giving and market structure is nonlinear. Therefore, the minor manufacturing industries were divided into two groups, on the basis of concentration. The first group includes those industries with CR4 values less than 45 percent. The second group includes those with CR4 values greater than 45 percent.<sup>13</sup> Simple regression analysis was then performed on both groups.

The regression findings are shown in Table 4. In equation (1), which includes all of the industries, a positive relationship between giving and concentration is found. The simple regression coefficient is not statistically significant. Likewise, equations (2) and (3) yield results that are not significant. However, the signs of the simple regression coefficients for the latter two equations are of interest. When the CR4 value is less than 45 percent, giving is directly related to concentration. Alternatively, giving is inversely related to concentration when the CR4 exceeds 45 percent. This finding is consistent with Johnson's examination of market structure. Rivalry

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<sup>12</sup>See Appendix B.

<sup>13</sup>The use of 45 percent to separate the two groups was suggested in an, as yet, unpublished paper by James A. Dalton and David W. Penn, "The Concentration-Profitability Relationship: Is There a Critical Concentration Ratio?"

TABLE 4

SIMPLE REGRESSION EQUATIONS RELATING CORPORATE GIVING  
TO INDUSTRIAL CONCENTRATION, LOGARITHMICALLY  
TRANSFORMED (CROSS-SECTIONAL DATA)<sup>a</sup>

Equation	CR4 Range (percent)	Constant Term	Concentra- tion	R <sup>2</sup>	N
1	0 to 100	$X_1 = 3.520$	$+0.075 X_2$ (0.365)	0.0018	76
2	0 to 45	$X_1 = 3.052$	$+0.424 X_2$ (1.508)	0.0471	48
3	45 to 100	$X_1 = 3.844$	$-0.134 X_2$ (-0.114)	0.0005	28

<sup>a</sup>Based on cross-sectional data for 76 manufacturing industries for the period, 1968-1970.

NOTE: "t" statistics in parentheses. Definitions of the variables:  $X_1$  = total gifts and contributions of corporations in the industry, 1968-1970 ( $\text{Log}_{10}$ );  $X_2$  = four-firm concentration ratio of the industry, 1968-1970 ( $\text{Log}_{10}$ ).

industries tend to give more than competitive or monopolistic industries. Nonprice competition is more intense in rivalry industry structures. The tendency for corporate giving to be related to the level of nonprice competition implies that such giving is motivated by profit maximization.

Admittedly, there is not a significant relationship between giving and concentration. The " $R^2$ " statistics found in Table 4 substantiate this. Yet, the findings of this section are consistent with what was disclosed in the previous section. Giving tends to be directly related to the degree of competitiveness to which a firm is subject.

## CHAPTER VI

### CONCLUSION

This study examines three alternative motives for corporate giving. They are: (1) through-the-firm consumption, (2) social responsibility, and (3) profit maximization. They are subjected to empirical tests which rely on cross-sectional income tax return data. The findings lead to several primary conclusions.

First, the findings of the multiple regression model tend to support either the through-the-firm consumption or profit motives for giving. Overall, the profit motive seems to be the strongest. An additional observation shows that middle-sized firms, as measured by asset size, are relatively more generous than smaller or larger firms. This finding is not consistent with either the through-the-firm consumption or social responsibility motives. It does provide more evidence for the profit motive if the assumption of greater nonprice competition in middle-size firms is accurate.

Second, the social responsibility concept is not found to be a significant motive for corporate giving. The multiple regression model fails to support it in any of the observed relationships. Apparently, the concept, as defined by Manne, is not accepted by firms as a guide to corporate behavior. Yet, it is a concept which firms cannot afford to formally reject. The findings of this study might be interpreted

as evidence that the social responsibility concept is not materially different from long-run profit maximization.

Third, the most important determinates of corporate giving in a cross-sectional analysis appear to be profit, officers' compensation, and advertising. Profit, as a measure of the success of business operations, is the source of corporate giving. The positive correlation between giving and officers' compensation supports the through-the-firm consumption motive. However, this conclusion is qualified by questions as to the true nature of officers' compensation. Finally, the significant relationship between giving and advertising, which is clearly profit motivated, provides further evidence that corporate giving is motivated by profit maximization.

Fourth, the variation of corporate giving among the different industrial sectors does not demonstrate any definite pattern.

Finally, corporate giving does not appear to be related to industrial concentration. Yet, the findings that are presented in Chapter V provide some evidence for the profit motive, however weak that evidence may be.

## APPENDIX A

### UNITED WAY QUESTIONNAIRE

#### Coverage

The questionnaire was sent to the executive directors of United Way agencies in the cities listed below. As asterisk identifies those agencies which responded. They are:

Atlanta	Knoxville	Seattle
Baton Rouge, LA	Los Angeles	Tucson
Beaumont, TX	Louisville	Washington, D. C.
Birmingham	Meridian, MS	Baltimore
Chicago*	New Orleans	Boston*
Columbus, GA*	New York*	Charlotte, NC
Dallas	Philadelphia*	Miami
Denver	Richmond*	Pittsburgh
Detroit	Roanoke, VA	Wheeling, WV*
Houston*	St. Louis	

#### Summary of Responses

A copy of the questionnaire is found at the end of this appendix. Responses to the eight questionnaires that were returned are summarized on the copy. A brief explanation of the summary is necessary since the three groups of questions require different types of responses.

The responses to group I questions are self-explanatory. Question I-4 is not answered because no suitable responses were received. The wording of the question is misleading and unclear. As a result, most of the executive directors did not answer it.

Group II questions are summarized according to the total number of votes received by each alternative response to a particular question.

As shown in the summary, questions II-2 and II-3 were not answered by all of the executive directors.

Group III questions are summarized by means of a point system, as mentioned in Chapter III. For each question in this group, the most important motive, as ranked by the executive director, receives the highest point value. The second most important motive receives a lower point value, and so on. The summary of group III questions indicates the rank of each alternative response to a particular question. In addition, the total number of points assigned to each alternative is shown. This is included to indicate the relative differences between the alternative motives.

#### Employee Giving--Some Additional Evidence

In addition to the data obtained through the questionnaire, a report issued by the United Way of America provided some individual firm data. The data show average employee giving and firm giving per employee for each of 785 national corporations. The data are for 1974. In this relatively large sample, average employee giving ranges from \$0.11 to \$97.48. Firm giving per employee ranges from \$0.05 to \$121.33.

These data are examined by means of simple regression analysis. Average employee giving is treated as the dependent variable. The observed relationship between employee giving and firm giving, the independent variable, is as follows (all data are logarithmically transformed):

$$X_1 = 1.310 + 0.595 X_2 \quad R^2 = 0.434$$

(24.79)

where,

$X_1$  = average employee giving in each firm ( $\text{Log}_e$ ),

$X_2$  = firm giving per employee for each firm ( $\text{Log}_e$ ),  
 "t" statistic in parentheses.

The relationship between employee giving and firm giving is positive and highly significant. It is not clear that this finding supports any one of the alternative motives for employee giving as a condition of employment, to the exclusion of the others. In one view, the public goods provided by United Way agencies are such that the employee alone is responsible for their provision. The firm may require employees to give to the United Way, but should not, itself, give anything. As such, the above finding is not consistent with the social responsibility motive. Instead, it supports the profit motive for employee giving.

Alternatively, the firm may have a social responsibility to help fund some of the public goods provided by United Way agencies. In this view, the regression findings would be consistent with the social responsibility motive. However, the profit motive for employee giving would still be consistent with the findings under this alternative explanation.

## QUESTIONNAIRE

## General Purpose

The following questions relate to three basic aspects of corporation giving to your United Way agency. For some of the questions, dollar amounts of giving will be requested. For other questions, you may wish to select a typical or average company, or group of companies, which sponsor fund drives within their establishments. Your own observations, based upon your experience and knowledge of organized giving, will be appreciated in answering these questions. As such, your spontaneous responses are more important than statistical evidence in answering the questions. Of course, any statistical information which you might provide would also be appreciated. Please feel free to provide any specific examples of company-sponsored fund drives if you believe them to be typical of the majority of this type of fund raising. All responses will be held in strict confidence.

I. Funds raised through company-sponsored fund drives. In this group of questions, a distinction is necessary between "company contributions" and "individual contributions" raised in company-sponsored fund drives. Thus, company contributions represent the amount of dollars actually given by the firm, in its own name. Individual contributions represent the amounts donated by employees of the firm, whether by persons at the highest management levels or by hourly production personnel.

1. During the most recently completed agency campaign, how many companies both made company contributions to your campaign and sponsored fund drives within their establishments? 9,418
2. Please furnish the following information for those companies referred to in question I-1, that is, companies which both contribute to, and sponsor employee fund drives for, your agency.

What was the total number of dollars received from company contribution?

\$ 40,859,809

What was the total number of dollars received from individual contributions?

\$ 53,192,097

3. For the same time period, how many companies gave a company contribution to your agency, but did not sponsor an employee fund drive within their establishment? 2,216

What was the total amount of dollars of company contributions received from these firms?

\$ 1,071,537

4. Total expenses incurred by a company in sponsoring a fund drive are usually greater than the amount of dollars that the company actually contributes to your agency. These costs typically include executives' time devoted to the drive, administrative costs of accounting for payroll deductions, wages paid to employees who solicit other employees on company time, the actual cash contribution of the company to United Way, etc.

If possible, please select a group of companies which you consider to have well-run, efficient fund drives within their establishments. For these companies, what sort of ratio exists between the total expenses incurred by them during the fund drive and the individual contributions resulting from the fund drive?

In other words, for each \$1 of expense incurred by the firm in sponsoring the drive, approximately how many dollars of individual contributions are received from the firm's employees?

\$1 : \$ \_\_\_\_\_

II. Initiative and effectiveness of company-sponsored fund drives. The following questions refer to the initiation of fund drives by corporations, their effectiveness, and the effectiveness of fund drives under different types of organization.

1. Over the past few years of your experience, what type of initiative was responsible for causing these companies to start a company-sponsored fund drive within their establishments?

1 Voluntary on their part -- these companies approached the United Way and asked to participate

7 Solicited by United Way -- agreed to participate only after some convincing and prodding on your part

\_\_\_\_\_ Approximately equal number of new fund drives due to each initiative described above

2. In terms of employee participation results during the first year of a company-sponsored fund drive, which of the two initiatives cited above in question II-1 tend to be associated with more efficient results?

1 Voluntary initial participation

5 Induced initial participation

1 Both are equally effective

3. Some companies organize the solicitation of contributions from non-management personnel by using management personnel for the actual solicitation, while other companies organize solicitation by using non-management personnel -- peer-group members of the production employees being solicited. Which of these two types of organization tends to be more effective, in terms of higher average individual contributions per employee participating in the company-sponsored fund drive?

         Solicitation by management personnel

4 Solicitation by peer-group members of the employees being solicited

3 Both are equally effective

- III. Motivation of participants. This final grouping of questions is concerned with the motives of companies and individuals who participate in, and contribute to, United Way campaigns. Some of the possible motives cited are necessarily vague and some are very similar to others. To a large extent, your responses will rely upon your own definitions of the terms, and the distinctions between them.

In responding to the following questions, a check mark next to the most important motive will be sufficient. However, it would be appreciated, and perhaps more informative, if you could order the motives in terms of their importance (1st-most important, 2nd-next most important, and so on).

1. Which of the following motives would be most responsible for a company's participation in, and contributions to, United Way campaigns?

TOTAL  
POINTS

RANK

- |    |          |   |
|----|----------|---|
| 23 | <u>5</u> | Pure charity -- desire to perform a "good deed"   |
| 16 | <u>6</u> | Indirect pure charity -- desire to set an example for employees, so that employees will perform "good deeds"                        |
| 25 | <u>4</u> | Public relations; long-run profit motive -- desire to be <u>seen</u> performing a "good deed" in order to increase future profits   |
| 7  | <u>7</u> | Political motive -- desire to influence governmental actions and attitudes affecting the company by performing "good deeds"         |
| 38 | <u>1</u> | Increase in employee well-being -- desire to provide social "goods and services" which may directly benefit the company's employees |

TOTAL  
POINTSRANK

- |    |          |  |
|----|----------|--|
| 34 | <u>3</u> | Indirect increase in employee well-being -- desire to set an example for employees so that employees will contribute to the provision of social "goods and services" which may benefit them directly |
| 37 | <u>2</u> | Desire to maintain and support a voluntary agency in the private sector for providing social "goods and services" as opposed to having governmental provision of the same                            |

2. Assuming that companies are willing to donate the time of their executives to work in a United Way campaign, which of the following motives would be most responsible in accounting for the executive's willingness to participate in such activity?

TOTAL  
POINTSRANK

- |    |          |   |
|----|----------|---|
| 26 | <u>2</u> | Pure charity -- desire to perform a "good deed"   |
| 13 | <u>4</u> | Personal advancement in income and/or position within the company   |
| 5  | <u>6</u> | Maintenance of current income and/or position within the company  |
| 24 | <u>3</u> | Personal recognition in the community-at-large  |
| 12 | <u>5</u> | Avoidance of social pressures imposed by fellow-workers or superiors  |
| 39 | <u>1</u> | Personal well-being -- to contribute to the provision of social "goods and services" from which some direct benefits might be anticipated |

3. To the extent that it is possible to determine the motives of individual contributors to a United Way campaign that takes place within the company, which of the following motives would tend to be most important as a motive for contributions by non-management personnel/employees?

TOTAL  
POINTSRANK

- |    |          |   |
|----|----------|---|
| 23 | <u>3</u> | Pure charity -- desire to perform a "good deed"                   |
| 13 | <u>4</u> | Personal advancement in income and/or position within the company |
| 6  | <u>5</u> | Maintenance of current income and/or position within the company  |

<u>TOTAL</u> <u>POINTS</u>	<u>RANK</u>	
6	<u>5</u>	Personal recognition in the community-at-large
33	<u>2</u>	Avoidance of social pressures imposed by fellow-workers or management personnel
39	<u>1</u>	Personal well-being -- to contribute to the provision of social "goods and services" from which some direct benefits might be anticipated

- IV. From your experience and knowledge of the charity market, could you suggest an operationally meaningful definition of the "pure charity" motive?
- V. If a recent annual report of your agency's activities is available, would you enclose a copy with this questionnaire?
- VI. Additional comments or suggestions

ANY ADDITIONAL INFORMATION OR STATISTICS RELATING TO YOUR AGENCY WILL BE WELCOME.

THANK YOU VERY MUCH FOR YOUR ASSISTANCE AND CONSIDERATION. YOUR RESPONSE TO THIS QUESTIONNAIRE IS GREATLY APPRECIATED. IF YOU SO DESIRE, A TABULATION OF THE QUESTIONNAIRE RESULTS WILL BE PROVIDED TO YOU, ONCE ITS DETERMINATION HAS BEEN MADE.

## APPENDIX B

### CONCENTRATION RATIOS

Table 5 in this appendix discloses the CR4 estimates that are used in the empirical examination of Chapter V. The CR4 values are derived from Source Book data, relying on the method described by Boyle. Application of that method is described below.

The CR4 for each industry represents an average level of concentration for the period 1968-1970. Ideally, there should have been exactly four firms in the largest, or N-largest, asset-size classes of each industry, for each of the three years. However, because the number of firms in an asset-size class varies, there are only four minor manufacturing industries which meet this ideal condition. In another 15 industries, CR4's could be calculated directly for two of the three years. In an additional 21 industries, it was possible to calculate directly the CR4 for one of the three years. Thus, Source Book data was available for the four largest firms for at least one of the three years for 40 of the 76 minor manufacturing industries. In these cases, the CR4 shown in Table 5 is based on the years for which data is available for exactly four firms.

Alternative estimation techniques are necessary if the four largest firms in an industry are not isolated with respect to data. When there are less than four firms in the largest asset-size class, equivalent asset data for the four largest firms are obtained through

the averaging techniques explained by Boyle. In these cases (20 in the present study), the CR4 value relies entirely on Source Book data.

Alternative data sources are used when the number of firms in the largest asset-size class exceeds four. In Table 5, 16 industries fall into this category. First, an attempt was made to identify the largest firms in each industry. A Securities and Exchange Commission publication was used for this purpose.<sup>1</sup> Next, asset data for the four largest firms, so determined, was gathered from Fortune.<sup>2</sup> That asset data was then adjusted in relation to Source Book data to produce the CR4 estimates.

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<sup>1</sup>U.S., Securities and Exchange Commission, Directory of Companies Filing Reports with the Securities and Exchange Commission, December, 1970, pp. 215-76.

<sup>2</sup>"The Fortune Directory of the 500 Largest Corporations," Fortune (May 1970), pp. 182-218.

TABLE 5

ESTIMATED FOUR FIRM CONCENTRATION RATIOS, IRS MINOR  
MANUFACTURING INDUSTRIES, 1968-1970 AVERAGES

IRS Industry Class <sup>a</sup> (1)	Method of Estimation <sup>b</sup> (2)	Industry Assets (000,000) (3)	Total Number of Firms in the Industry (4)	CR4 (5)
2010	B	\$ 7,688	2,501	62.23
2020	A	5,427	2,480	51.35
2030	A	5,501	1,665	33.60
2040	A	5,978	1,675	45.13
2050	A	2,718	2,188	40.51
2060	A	1,987	101	57.18
2082	B	2,850	110	44.01
2084	A	4,743	238	68.61
2086	A	3,758	2,462	52.44
2098	A	7,174	2,716	43.22
2100	C	6,109	98	83.73
2228	C	7,969	1,627	31.53
2250	A	2,149	2,127	28.59
2298	A	4,662	2,590	21.62
2310	B	4,644	2,693	27.07
2330	A	4,534	9,443	10.40
2380	B	687	2,798	10.78
2398	B	1,260	3,548	17.32
2410	B	4,862	3,709	46.74
2430	A	4,508	2,784	61.59
2498	B	995	2,917	13.54
2510	B	2,578	4,430	11.71
2590	A	1,489	2,249	16.42
2620	C	14,137	316	24.01
2698	B	5,263	3,069	30.32
2711	A	6,354	4,611	18.56
2712	A	2,130	2,479	36.25
2715	B	3,935	2,970	31.43
2798	A	5,883	15,294	15.19

TABLE 5--Continued

IRS Industry Class <sup>a</sup> (1)	Method of Estimation <sup>b</sup> (2)	Industry Assets (000,000) (3)	Total Number of Firms in the Industry (4)	CR4 (5)
2810	C	\$28,560	2,932	39.64
2830	C	8,856	1,206	26.66
2840	A	4,464	2,349	42.64
2850	A	2,319	1,245	60.02
2898	A	4,712	2,623	36.80
2899	A	316	22	92.98
2910	C	84,456	243	51.10
2998	A	921	778	48.73
3010	C	8,861	1,123	76.28
3098	B	2,219	4,336	9.66
3140	A	2,435	852	39.25
3198	B	1,107	1,526	21.41
3210	A	4,292	951	69.08
3240	B	2,537	136	36.76
3270	A	3,781	4,928	28.72
3298	B	3,956	2,569	29.94
3310	C	26,747	2,196	67.54
3330	C	23,987	1,991	43.73
3410	A	3,358	155	93.63
3420	A	2,187	1,234	37.83
3430	A	2,858	895	61.06
3440	B	7,104	7,369	22.40
3450	B	1,815	2,668	22.76
3461	A	2,797	2,502	40.18
3498	B	5,959	8,519	11.51
3520	A	6,592	1,172	81.72
3530	C	7,927	1,571	40.31
3540	A	4,350	6,741	13.70
3550	B	4,859	2,875	26.14
3560	A	5,911	2,678	37.44
3570	C	15,249	418	78.48
3580	A	2,149	1,104	42.73
3598	A	2,916	7,328	34.74

TABLE 5--Continued

IRS Industry Class <sup>a</sup> (1)	Method of Estimation <sup>b</sup> (2)	Industry Assets (000,000) (3)	Total Number of Firms in the Industry (4)	CR4 (5)
3630	C	4,438	583	63.07
3660	C	10,629	1,502	61.83
3662	C	10,499	4,147	31.10
3698	A	17,334	4,569	62.87
3710	C	47,971	2,398	78.68
3720	C	23,516	895	41.73
3730	B	989	983	35.33
3798	A	4,553	1,181	68.42
3810	B	3,740	1,357	38.76
3830	A	2,302	2,472	44.68
3860	A	4,296	379	88.22
3870	A	628	73	59.32
3930	A	485	146	69.11
3990	A	7,973	12,064	19.99

<sup>a</sup>The industry class numbers are as designated in the Source Book. For a description of the industries represented, see, Corporation Source Book of Statistics of Income: General Description, cited in Ch. IV.

<sup>b</sup>The methods of estimating CR4 values are as follows: A, Source Book data available for exactly four firms for at least one of the three years, 1968-1970; B, calculated entirely with Source Book data, largest four firms not identified exactly; C, calculated with Source Book data plus alternative sources cited in text of this appendix.

APPENDIX C

ADDITIONAL EMPIRICAL FINDINGS

TABLE 6

REGRESSION EQUATIONS RELATING CORPORATION GIVING TO SUCCESSIVELY LARGER  
NUMBERS OF EXPLANATORY VARIABLES, LOGARITHMICALLY TRANSFORMED  
(CROSS-SECTIONAL DATA)<sup>a</sup>

Equations	Constant Term	Number of Corporations	Profit	Employment	Officers' Compensation	Dividends	Advertising/Sales	(R <sup>2</sup> )
A	X <sub>1</sub> = 2.933	+0.236 X <sub>2</sub> <sup>**</sup> (2.653)						0.087
B	X <sub>1</sub> = -2.073	+0.077 X <sub>2</sub> <sup>*</sup> (2.295)	+0.974 X <sub>3</sub> <sup>***</sup> (21.624)					0.877
C	X <sub>1</sub> = -2.355	+0.105 X <sub>2</sub> <sup>**</sup> (2.612)	+1.009 X <sub>3</sub> <sup>***</sup> (19.015)	-0.096 X <sub>4</sub> (-1.251)				0.879
D	X <sub>1</sub> = -2.773	-0.066 X <sub>2</sub> (-0.518)	+0.926 X <sub>3</sub> <sup>***</sup> (11.740)	-0.109 X <sub>4</sub> (-1.429)	+0.292 X <sub>5</sub> (1.419)			0.883
E	X <sub>1</sub> = -2.655	-0.070 X <sub>2</sub> (-0.546)	+0.834 X <sub>3</sub> <sup>***</sup> (3.995)	-0.099 X <sub>4</sub> (-1.231)	+0.311 X <sub>5</sub> (1.476)	+0.065 X <sub>6</sub> (0.477)		0.883
F	X <sub>1</sub> = -2.458	-0.164 X <sub>2</sub> (-1.376)	+0.584 X <sub>3</sub> <sup>***</sup> (2.906)	+0.000 X <sub>4</sub> (0.002)	+0.516 X <sub>5</sub> <sup>**</sup> (2.587)	+0.169 X <sub>6</sub> (1.321)	+0.196 X <sub>7</sub> <sup>***</sup> (3.891)	0.904

<sup>a</sup>Based on cross-sectional data for 76 manufacturing industries for the three-year period, 1968-1970.

NOTE: \* Indicates significance at the 95 percent confidence level; \*\* indicates significance at the 98 percent confidence level; \*\*\* indicates significance at the 99 percent confidence level. For definition of variables, see Table 1.

TABLE 7

GIFTS AND CONTRIBUTIONS AS PERCENTAGE OF TOTAL DISTRIBUTIONS OF CORPORATION EARNINGS,  
ALL CORPORATIONS AND EIGHT MAJOR INDUSTRIAL SECTORS,  
1968 THROUGH 1970 (DOLLAR VALUES IN MILLIONS)<sup>a</sup>

Industrial Sector	Annual Average of			Contributions as a Percentage of Distributions	
	Dividends Other than Own Stock (1)	Officers' Compensation (2)	Gifts and Contri- butions (3)	Contributions and Dividends (4)	Contributions, Officers' Compensation, and Dividends (5)
All corporations	\$32,176	\$29,893	\$952	2.87	1.51
Agriculture, forestry, and fisheries	83	291	3	3.33	0.76
Mining, quarrying	1,197	243	8	0.67	0.56
Construction	304	2,785	24	7.40	0.78
Manufacturing	14,613	7,521	532	3.52	2.35
Public Utilities	5,614	1,215	83	1.46	1.21
Trade	2,135	8,947	141	6.19	1.26
Finance, insurance, and real estate	7,654	4,915	130	1.67	1.02
Services	573	3,969	30	5.01	0.66

<sup>a</sup>This table corresponds to Table 16 in Nelson's study; see, Economic Factors, p. 70.

SOURCE: U.S. Internal Revenue Service, Statistics of Income, Corporation Income Tax Returns, 1968, 1969, 1970.

TABLE 8

GIFTS AND CONTRIBUTIONS, PLUS SELECTED VARIABLES, USED  
TO COMPILE TABLE 3, ALL CORPORATIONS, 1969

Asset Size Class	Dollar Values (Millions)					
	Gifts and Contributions (1)	Gross Sales (2)	Officers' Compen- sation (3)	Before Tax Profit (4)	After- Tax Profit (5)	Dividends (6)
One dollar to \$0.050 <sup>a</sup>	\$ 3.18	\$ 37,373	\$3,869	\$ - 124	\$ - 268	\$ 331
\$0.050 to 0.100	7.30	41,693	2,983	829	554	260
0.100 to 0.250	24.38	100,390	5,251	2,684	1,813	547
0.250 to 0.500	34.52	108,951	4,165	2,832	1,777	653
0.500 to 1.00	40.95	115,948	3,184	2,925	1,533	407
1.00 to 5.00	111.10	217,505	4,264	7,064	3,342	1,165
5.00 to 10.00	46.26	75,522	1,121	3,069	1,464	562
10.00 to 25.00	64.99	78,767	1,161	4,136	2,121	970
25.00 to 50.00	50.29	60,559	740	3,331	1,794	956
50.00 to 100.00	52.89	61,843	615	3,629	2,061	1,274
100.00 to 250.00	96.34	100,729	765	7,001	4,124	2,807
250.00 and over	\$519.42	\$552,691	\$2,055	\$45,628	\$29,433	\$22,735

<sup>a</sup>The zero asset size class is omitted.

SOURCE: U.S. Internal Revenue Service, Statistics of Income, 1969, Corporation Income Tax Returns, Table 6, pp. 92-93.

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## SOME ECONOMIC ASPECTS OF CORPORATE GIVING

by

Paul James Whitehead

### (ABSTRACT)

This study examines corporation giving for charitable and philanthropic purposes. There has been a substantial increase in the scale of this activity during the past few decades. Three alternative hypotheses have been advanced to explain the economic motivation of corporate giving. This study tests those motives using cross-sectional empirical data.

The study relies primarily on data collected from the Internal Revenue Service's Source Book, for the period 1968 to 1970. A multiple regression model of corporate giving is formulated to test the motives. The study includes comparative statistics to measure the variability of corporate giving between industrial sectors. In addition, a survey of United Way agencies was conducted to examine corporate motives for giving.

The results of the empirical tests indicate that corporate giving is profit motivated. There is also some evidence to support the hypothesis that giving represents through-the-firm utility maximizing by corporate owners and managers. Little evidence is found to support the social responsibility concept as a motive for corporate giving.

A conclusion drawn from this is that observed socially responsible behavior is substantially equivalent to long-run profit maximization.