

## **Corporate-Sponsored Foundations and Earnings Management**

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## **Abstract**

In the wake of recent corporate governance scandals, corporate philanthropy has received increased attention. This paper examines whether managers strategically use contributions to meet financial reporting objectives. Specifically, corporate-sponsored private foundations allow firms to maintain stable levels of giving to charitable causes while providing substantial discretion as to the amount of contribution expense recorded on the income statement in any given period. I find that firms which reported small earnings increases made large income-increasing discretionary foundation funding choices. In particular, this result is associated with firms that have greater equity market incentives to manage earnings. I also find that firms which made large income-decreasing discretionary payins were more likely than firms which made small income-decreasing discretionary payins to report strings of earnings increases in subsequent years, after controlling for performance. These results are consistent with the foundation acting as an off-balance sheet reserve.

# Corporate-Sponsored Foundations and Earnings Management

## 1. Introduction

This paper examines whether firms strategically time the funding of their corporate-sponsored foundations (1) to increase earnings in order to report small positive earnings changes or (2) to create reserves. Firms record contribution expense when they transfer resources to their corporate-sponsored foundations (“payins”). The foundations then make grants (“payouts”) to public charities. Foundations allow firms to separate decisions regarding the financial reporting effect of philanthropy from decisions regarding the economic effect of philanthropy in a given period. Thus, corporate foundations offer an opportunity for managers to exercise discretion to influence reported earnings without necessarily affecting the level of giving to outside charities.

In order to measure manipulation of corporate foundation payins, I develop a model of expected payins in the absence of discretion. The model assumes that the level of payouts is exogenously determined by management and, thus, payins are discretionary with respect to timing, not amount. The discretionary payin measure equals the difference between actual payins and expected payins from the model. I predict that firms with reported earnings slightly above prior year earnings made lower discretionary payins (i.e., greater income-increasing behavior) than firms that just missed this benchmark. Furthermore, I predict that firms with high stock price sensitivity to earnings news, as measured by the length of a firm’s string of non-negative earnings changes through year  $t-1$ , will engage in this type of earnings management behavior to a greater extent than less sensitive firms. In addition, I predict that firms which made large, income-decreasing discretionary payins are more likely to achieve financial reporting objectives in subsequent periods because they have created reserves which can be drawn down if necessary.

Empirical results are consistent with these predictions. Firms appear to time foundation payins to meet or slightly beat prior year earnings. Firms with small increases in earnings record lower discretionary contribution expense on average than firms with small decreases in earnings. This result is particularly strong when examining the change in fourth quarter earnings per share. The income-increasing discretionary payins by firms that reported small increases in earnings appears to be driven in large part by firms with higher stock price sensitivity to earnings news.

In addition, I find that firms which made large, income-decreasing payins while still reporting an earnings increase exhibit behavior consistent with reserve creation and use. These firms have a higher frequency of strings of subsequent earnings increases and have foundation assets that steadily decrease over time.

Although, for many firms, foundation payins are not large enough in and of themselves to achieve a specific earnings objective, my results suggest, more generally, that foundation payins are one device in a portfolio of discretionary choices that firms can use. Thus, this study contributes to the earnings management literature by providing evidence of a previously unexamined earnings management tool available to managers, as well as providing further evidence consistent with the importance of equity market incentives on earnings management behavior.

I also offer empirical evidence relevant to the current public policy debate on the governance of corporate philanthropy and to the regulatory question concerning disclosure of direct corporate giving. The scrutiny from legislators and regulators related to ineffective corporate governance extends to corporate philanthropy. Recently proposed corporate governance legislation was motivated by the belief that corporate philanthropy can be an opportunistic use of shareholder resources which should be curbed. At the time Sarbanes-Oxley was being formulated, Congressional staff considered an amendment which would have brought corporate-sponsored foundations under the jurisdiction of the SEC by requiring corporations to disclose the activities of their foundations. In addition, the first version of the Sarbanes-Oxley Act of 2002 passed by the House required firms to disclose all corporate contributions.<sup>1</sup> While this paper does not directly address the question of whether contributions are made by management for opportunistic reasons, it is the first study to examine whether contributions are used by management to meet financial reporting objectives. Whether, from a public policy standpoint, firms *should* engage in corporate giving, the fact remains that they do. In order to

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<sup>1</sup> Neither of these requirements was included in the final version of Sarbanes-Oxley. The fact that these proposals were unsuccessful does not necessarily mean that Congress did not view contributions as a managerial requisite. The proposals more likely failed because lawmakers are hesitant to interfere with corporate expenditures perceived to have positive social value. Former SEC chairman Richard Breeden (1997) said, "If I were still in government, I would not want to touch the issue of 'regulating' corporate philanthropy with a 500 foot pole. The risk of being labeled Scrooge at the SEC by even discussing the question would be too great." Both the NYSE and NASDAQ have recently adopted stricter rules regarding director independence in relation to charitable contributions.

assess the larger issue of desirability of corporate philanthropy, it is necessary to address basic research questions, such as how philanthropy influences or is influenced by a firm's financial reporting.

The next section provides an overview of corporate philanthropy with an emphasis on giving via a company-sponsored foundation. Section 3 develops my hypotheses. Section 4 describes the data employed in the empirical tests. Section 5 presents a model of discretionary contribution expense. Section 6 reports the results of the earnings management tests. Conclusions are offered in Section 7.

## **2. Corporate Philanthropy**

### *2.1 Methods of Corporate Philanthropy*

Corporations contributed over \$12.2 billion to charity in 2002 (Giving USA, 2003), including an estimated \$3.4 billion from corporate-sponsored foundations (Renz and Lawrence, 2003).<sup>2</sup> As indicated in Figure 1, firms support charitable organizations through corporate foundations, direct giving programs, or both. A company-sponsored private foundation is a separate legal entity that is exempt from paying federal income tax. Although legally independent, these foundations maintain close ties with their parent companies. A corporate foundation's board and staff are almost always directors or employees of the parent company. Usually the parent company and its subsidiaries provide the only source of funding ("payins") for the foundation. The foundation then makes grants for charitable purposes ("payouts"), normally to public charities. Corporate foundations generally do not have the large endowments that university and family-sponsored foundations have, but instead act as a channel for corporate giving. Normally the parent company records contribution expense for tax and book purposes in the period that it funds (or pledges to fund) the foundation, not in the period when the ultimate gift is made from the foundation to the outside public charity.

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<sup>2</sup> Education garners the largest fraction, approximately 30%, of corporate giving. Health and human service organizations receive the second greatest amount. Arts and cultural, environmental, international and community and civic causes also receive corporate support.

A private foundation must follow certain regulations to maintain its tax-exempt status, including filing a Form 990-PF with the IRS annually, paying a 2% excise tax on its investment income, and paying out to qualifying nonprofits at least 5% of the average market value of its investment assets every year. The 990-PFs are a matter of public record. Foundations are required to disclose on the 990-PF from whom they received contributions aggregating \$5,000 or more during the year. Consequently, the amount of the parent company's gifts to its foundation can be determined by reviewing the 990-PF. In addition, foundations are required to provide a detailed account of the amount and purpose of each grant to each recipient.

Foundations are considered the bellwether of the corporate giving strategy. The advantages of having a corporate foundation include: foundations can insulate corporate executives from outside pressures; foundations allow firms to maintain stable levels of giving which are not affected by the business cycle by permanently moving assets off the books; and foundations allow firms to optimally time tax deductions for charitable giving (Smith, 1993). The main disadvantage of foundations is that firms are required to fully disclose giving activity.

Firms can also give directly to public charities. Because there is no intermediary foundation, contribution expense for direct giving is recorded in the period the gift is made to the outside public charity. Direct giving includes both cash and non-cash contributions, such as inventory, land, stock, and employee time. Corporate direct giving programs are not separate legal entities and do not adhere to the regulations governing foundations. It is often difficult to get information on direct giving programs because no public disclosure is required. It is common for firms to maintain both a corporate foundation and a separate direct giving program.

## *2.2 Motives for Corporate Philanthropy*

The most widely cited reason for corporate philanthropy is that firms are profit-motivated and will choose an optimal amount of giving to maximize profits (Johnson, 1966; Schwartz, 1968; Clotfelter, 1985; Navarro, 1988a). Corporate giving can increase the firm's name recognition and reputation among consumers. Research has consistently found a positive association between advertising and corporate giving (Schwartz, 1968; Navarro, 1988; Boatsman and Gupta, 1996). Williams and Barret (2000) find that, while a firm's reputation is diminished

by OSHA and EPA violations, the extent of decline is reduced by charitable giving. In support of a cost side motive, Navarro (1988) finds that the level of contributions rises with labor intensity. In addition, corporate philanthropy can be used to appease special interest groups and regulators. Baron (2001) provides a theory of private politics where one reason for a corporation to redistribute wealth is a threat by activists. Neiheisel (1994) finds that firms use philanthropic contributions as a political currency to gain access to politicians and influence policy.

Managerial opportunism is an additional motive for corporate philanthropy. Jensen and Meckling (1976) note that the type and amount of charitable contributions can create non-pecuniary utility for management. A manager may contribute corporate resources to achieve a higher social status, to gain favor with board members by contributing to their pet charities or to further his own ideological preferences (Barnard, 1997). Useem and Kutner (1984), Galaskiewicz (1997) and Boatsman & Gupta (1996) provide evidence consistent with management exerting significant influence over corporate contributions. In addition, Helland and Smith (2003) show that firms with larger boards give more to charity which they interpret as evidence that corporate philanthropy is an agency cost in the form of a managerial or board perquisite. The profit maximization motive and the managerial perquisite motive are not necessarily mutually exclusive (Helland and Smith, 2003).<sup>3</sup>

### *2.3 Corporate Foundations and Earnings Management*

The separation of payouts and payins provides a reason for expecting that foundations may be useful earnings management tool. When firms have corporate foundations, the effect of corporate philanthropy (which, as discussed above, is either a profit maximizing input or a compensation cost in the form of a perquisite) occurs at the time of *payout*. Payouts tend to be sticky, meaning they remain relatively stable over time. However, a firm may record the expense related to charitable contributions in any period it chooses by moving funds to the off-balance sheet foundation, subject to having enough funds in the foundation to cover necessary

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<sup>3</sup> A third motive is altruism. Individual investors may be altruistic and use the corporation as an intermediary because of potential tax advantages of giving via the firm. Corporate contributions are tax-deductible while dividends are not, so individual investors can increase the amount of giving at no cost by giving through the corporation. Similarly motivated, managers may believe that firms have a social responsibility to address societal problems. Little empirical evidence exists to support a purely altruistic motive for corporate philanthropy.

payouts.<sup>4</sup> In fact, for many firms, payins fluctuate considerably from year to year. A comparison of payouts and payins by firm indicates that payins are significantly more variable than payouts ( $p < 0.01$ ).<sup>5</sup> In years when a firm needs to increase earnings in order to meet a financial reporting objective, it can still make the desired level of payouts without recording a related accounting expense by using the off-balance sheet assets. An example of the flow of payins and payouts and their effect on earnings for AT&T is included in the appendix.

Whether managers actually do use the corporate foundations to manipulate earnings through the timing of payins is an open question. On one hand, St. John (2000) reports the justification for using a corporate foundation made by one foundation official: “Duke Power established the foundation 15 years ago for two reasons: to give back to the communities in which we operate and because of the tax benefits that the company derives from giving. A private foundation is a powerful earnings management tool.” A corporate foundation can be a powerful earnings management tool because, unlike most earnings management tools that are constrained by GAAP, managers have complete discretion over the timing of foundation payin expense as discussed above. On the other hand, there is significant debate over the legitimacy of corporate philanthropy and giving is closely scrutinized. This scrutiny may preclude firms from using foundation payins as an earnings management device. In addition, foundations can not transfer funds back to the parent company. Thus, the maximum amount by which a firm can increase income is limited to making zero payins, which may not be of sufficient magnitude to be an effective earnings management device.

Most prior research on earnings management examines the use of accounting methods and estimates. A few papers have analyzed real earnings management, the use of operating,

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<sup>4</sup> Although not explicitly aimed at corporate foundations, SFAS No. 136, “Transfers of Assets to a Not-for-Profit Organization or Charitable Trust That Raises or Holds Contributions for Others” sets GAAP for foundation payins. SFAS No. 136 states that if a resource provider (the firm) controls the recipient organization (the foundation), then the transfer should not be recorded as an expense but rather an asset should stay on the firm’s balance sheet. For example, there is clear evidence that many firms use charitable contributions as a form of advertising. If a firm paid for conventional advertising today intending to receive a future benefit, the firm would record an asset today and record expense only in the period that the advertising occurred. However, the FASB intentionally declined to define ‘control’. Thus, firms can and do expense contributions rather than creating a prepaid asset when the resources are transferred to the foundation. SFAS No. 136 was not in effect during the sample period.

<sup>5</sup> In addition, a comparison of contribution expense for firms with foundations (i.e., payins) and contribution expense for a sample of firms with no foundation (i.e., direct gifts) indicates that contribution expense for firms with foundations is significantly more variable than contribution expense for firms without a foundation.

investing, or financing decisions for the purpose of affecting reported earnings, i.e., Hand (1989), Baber, Fairfield and Haggard (1991), and Bartov (1993). The timing of foundation payins is also a real earnings management tool in the sense that a firm makes an irrevocable commitment of resources to the foundation. It is important to note, however, that this decision does not necessarily have an immediate cash flow effect. In 1995, firms adopted SFAS No. 116, “Accounting for Contributions Received and Contributions Made.” SFAS No. 116 requires that unconditional pledges be recorded as an expense in the period that the pledge is made. Thus, SFAS No. 116 allows a firm to manipulate its contributions expense and therefore its earnings in the current period while deferring the actual cash flow effects to a subsequent period.<sup>6</sup>

Anecdotally, Fannie Mae’s contributions have been extensively criticized. In 1995 Fannie Mae made a \$350 million pledge to its foundation, reducing 1995 earnings per share from \$2.14 to \$1.95 (the firm’s 1994 earnings per share were, coincidentally, \$1.94). Fannie Mae noted in its 10-K that this “commitment to contribute...was intended to fund foundation activities beyond the turn of the century.” In 1996, Fannie Mae actually transferred resources to the foundation, receiving a large up front tax deduction for activities “beyond the turn of the century.” Fannie Mae is a particularly interesting example because it is able to run its entire advertising campaign out of its foundation.<sup>7</sup> Thus, by pledging to give to the foundation, it was essentially able to expense several years of advertising costs in 1995.

Examining the timing of foundation payins is a single account approach to analyzing earnings management, similar to McNichols and Wilson (1988) and Petroni (1992). However, unlike previous single account approaches which normally focus on one specific industry, I examine at a broad cross-section of firms. The benefit of the single account approach is that, based on a specific understanding of corporate foundations, a more precise proxy for earnings management than total accruals can be developed. The traditional concern about this approach

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<sup>6</sup> Data constraints prevent an analysis of accrued contributions prior to 1998. Full-text versions of each corporate foundation’s 990-PF are available starting in 1998. The full-text includes the amount of pledges receivable that the foundation has recorded. The parent corporation must have a corresponding pledges payable on its book. Most firms do not make pledges to their foundation but instead record the contribution expense at the time the gift is transferred to the foundation. I examined the full-text 990-PF for 335 corporate foundations, of which only 30 foundations reported pledges receivable.

<sup>7</sup> For example, in 2001, the Fannie Mae Foundation spent \$48 million on advertising and \$35 million on grants to nonprofit groups (McKinnon, 2002).

for detecting earnings management is that a single account is only one possible tool in a portfolio of options to manipulate earnings. That is, earnings management may occur but it may not be detected if the researcher restricts attention to a single account. To address this concern, I also examine whether there is a relation between discretionary payins and unexpected accruals to determine whether management makes consistent use of the portfolio of tools available to achieve a particular reporting objective.

### **3. Hypothesis Development**

This section develops the hypothesis that firms deliberately time foundation payins to achieve earnings objectives. Possible incentives for engaging in earnings management include signaling private information and managerial opportunism.<sup>8</sup> The following hypotheses focus on predicting manipulation and do not depend on the assumption that this manipulation is undertaken by management for opportunistic reasons or that anyone is fooled by management's foundation funding choices.<sup>9</sup>

The earnings management literature makes three general predictions about the use of discretion relevant to a particular benchmark (Healy, 1985; Hwang and Ryan, 2000; Abarbanell and Lehavy, 2003). First, if pre-managed earnings are above a relevant benchmark, firms will make income-decreasing choices that result in reported earnings that are still above the benchmark while creating accounting reserves that can be exploited at a later date. Next, if pre-managed earnings are below a benchmark but reserves are available to meet the benchmark, firms will draw from accounting reserves or borrow from future earnings to report earnings at or

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<sup>8</sup> Freddie Mac provides evidence that different parties may view the same use of foundation payins differently. In 2002, Freddie Mac made a \$225 million cash contribution to its foundation, reducing 4<sup>th</sup> quarter earnings by 21 cents per share. Freddie Mac announced that it expected this grant to cover the foundation's expenses for the next six to eight years, eliminating the need to make additional contributions, and to record contribution expense on the financial statements, during that period. When it announced the \$225 million contribution, an analyst at Morgan Stanley considered it a signal, noting that making a large contribution "is not something you do if you are on the verge of failing your capital-adequacy test" (Barta, 2002). However, earlier in the same year, discussions with the SEC prompted Freddie Mac to reduce its loan loss reserve by \$246 million. When the contribution was made, regulators expressed concern that the company was simply replacing one cookie jar reserve, the loan loss reserve, for another, the excessively funded corporate foundation (Kopecki, 2003).

<sup>9</sup> The foundations must file their 990-PFs by the 15<sup>th</sup> day of the fifth month after the end of the fiscal year so the effects of this type of earnings management potentially could be unraveled but not at the earnings announcement date. From a research design perspective, it is not possible to determine the date that the 990-PFS became publicly available for years prior to 1998.

slightly above benchmark. Finally, if pre-managed earnings and available reserves are insufficient to meet any benchmark firms will engage in extreme, income-decreasing behavior that pays back prior borrowings or creates reserves for use in the future.

I use prior year earnings per share as the benchmark that managers consider when choosing the current period level of foundation payins. Management has incentive to report increased earnings in several settings. For example, Barth, Elliott and Finn (1999) demonstrate that prior year earnings are an important benchmark to the equity market and Murphy (1999) shows that prior year accounting performance is a common standard by which current performance is judged in executive bonus contracts.

### *3.1 Earnings Management Around Zero Change in Earnings*

Burgstahler and Dichev (1997) and Degeorge et al. (1999) find unusually low frequencies of small decreases in earnings and small losses and unusually high frequencies of small increases in earnings and small positive income. They interpret these results as evidence that firms manage earnings to meet or slightly beat a relevant benchmark. However, Beaver, McNichols and Nelson (2003) suggest that a majority of the discontinuity at zero in the distribution of earnings and earnings changes is attributed to nondiscretionary earning components, specifically taxes and special items. Thus, it is important to tie the *ex post* discontinuity results to a specific measure of discretionary behavior.

By examining earnings changes immediately above zero, I am attempting to pinpoint the firms that most likely engaged in income-increasing behavior.<sup>10</sup> In principle, firms with reported earnings at or slightly above a relevant benchmark may have engaged in income-increasing or income-decreasing behavior depending on the level of pre-managed earnings. However, recent empirical evidence suggests that firms which meet or beat a relevant earnings benchmark are

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<sup>10</sup> This analysis is not an attempt to calculate the absolute magnitude by which earnings are managed but rather to determine if manipulation of foundation payins is associated with beating the bright line of prior year earnings per share. The difficulty with a single account approach to testing earnings management is developing a functional estimate of unobservable pre-managed earnings because there is no reason to believe that firms rely on only a single account to manage earnings. With the exception of Beatty et. al. (2002), few papers compare pre-managed and reported earnings to determine if firms were able to meet prior year earnings with a single account. The inability to develop a reasonable estimate of pre-managed earnings is amplified when the single account is relatively small, as is the case with foundation payins. Thus, I analyze reported rather than pre-managed earnings, assuming that firms that just beat prior year earnings used a portfolio of earnings management techniques, which includes foundation payins.

more likely to engage in income-increasing than income-decreasing earnings management.<sup>11</sup> Beaver, McNichols, and Nelson (2003) examine discretionary loss reserve accruals for insurers around a benchmark of zero earnings. They find that firms with small positive reported earnings engage in greater income-increasing behavior relative to firms with small negative reported earnings and, although not predicted, relative to the rest of the earnings distribution. Abarbanell and Lehavy (2003) find an association between income-increasing earnings management and a higher than expected ratio of positive to negative analyst forecast errors around zero, indicating an increased likelihood of income-increasing earnings management for firms with reported earnings immediately above the forecast. The above discussion motivates tests of the following hypothesis, stated in the alternative:

H1: Firms that slightly beat the benchmark of prior period earnings record lower discretionary contribution expense (i.e., greater income-increasing behavior) than firms that just miss this earnings benchmark.

It should be noted that H1 runs contrary to conventional wisdom that firms give a fixed percentage of earnings every year (i.e., firms make higher contributions to their foundations in years of high profits and fewer contributions in years of low profit). It also runs contrary to the argument that firms with earnings increases face increased tax rates compared to firms with earnings decreases, and therefore will be expected to make higher payins in order to minimize taxes.

I incorporate equity market incentives for earnings management (Dechow and Skinner, 2000) to produce a refinement of H1. Barth et al. (1999) find that firms reporting strings of increased earnings are priced at a premium, that the premium increases almost monotonically with the length of the string, and that the premium is reduced when the string is broken. Investigating whether firms achieve such strings through manipulation, Myers and Skinner (2002) present evidence that firms with strings of quarterly earnings increases manage earnings

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<sup>11</sup> Abarbanell and Lehavy (2003) present a theoretical reason for this result. The prediction from their model is based on the fact that income-increasing earnings management will always result in a reported earnings number that meets or slightly beats a relevant benchmark, but some income-decreasing earnings management will move reported earnings well below the benchmark (i.e., when a firm chooses to take an earnings bath). All else equal, therefore, income-increasing earnings management is more likely than income-decreasing earnings management conditional on reported earnings that meet or slightly beat a relevant benchmark.

to avoid breaking those strings. I expect that firms with long strings of consecutive earnings growth have higher stock price sensitivity to earnings news than other firms and are, therefore, more likely than other firms to manage earnings upward to meet or beat expectations in order to avoid a disproportionately large market reaction to bad news (see, e.g., Abarbanell and Lehavy [2003]). This discussion leads to the following hypothesis, stated in the alternative:

- H2: Among firms that slightly beat the benchmark of prior period earnings, negative discretionary contribution expense (i.e., income-increasing behavior) increases in the firm's stock price sensitivity to earnings news as measured by the firm's prior string of non-negative earnings changes.

### *3.2 Earnings Management to Create Reserves*

As discussed above, certain firms are predicted to engage in income-decreasing behavior to create accounting reserves that can be used to achieve financial reporting objectives in later periods. Firms with pre-managed earnings above all relevant benchmarks are expected to create cookie jar reserves while firms with low pre-managed earnings and insufficient reserves to meet a relevant benchmark are hypothesized to take an earnings bath.<sup>12</sup>

Firms are able to use their foundations as off-balance sheet reserves. The reserve is created by a large payin in a period when the firms chooses to decrease income. In future periods, when firms need to increase earnings in order to meet a benchmark, the reserve can be drawn down by making payouts without corresponding payins, allowing the firm to achieve the economic effect of the payout without recording an expense. This discussion motivates the following hypothesis, stated in the alternative:

- H3: Firms which record high discretionary contribution expense (i.e., income-decreasing behavior) create reserves which they are able to use to report consistent earnings growth in subsequent periods.

Note that Abarbanell and Lehavy (2003) suggest that firms that perform poorly may not take a bath when the firm's stock price remains sensitive to the level and/or composition of

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<sup>12</sup> The term cookie jar reserve is most used to refer to some type of liability that is overstated so that it can be drawn off in the future. I adopt the term cookie jar reserve to discuss corporate foundation payins. In this context, I use the term cookie jar reserve to mean that firms record expenses which reduce earnings and place assets off-balance sheet in good years with the intention of eliminating the need to record such expenses in bad years. Again, I do not assume that management undertakes this manipulation to fool anyone or to make financial reports more informative.

reported earnings. Because foundation payins, or pledges to payin, represent a real commitment to transfer resources from the firm, concern about investor backlash may make management reluctant to increase payins as part of a big bath when the firm is performing poorly. For example, Boeing was criticized for incurring a loss of \$178 million while spending \$51.3 million on charitable contributions in 1997 (Jennings and Cantoni, 1998). Thus, stock price sensitivity and maintaining good investor relations work against finding evidence of bath behavior.

#### **4. Sample Selection and Data**

I obtained corporate foundation data from the foundation's 990-PF using a two-step process. First, I identified firms with corporate philanthropy programs using the Taft Group's Corporate Giving Directory (2001). The Taft Group publishes information annually on corporate philanthropy, primarily for use by fundraisers and nonprofit executives. Each company profiled makes contributions to external charities (payouts and direct giving) of at least \$200,000 annually. I limited the sample to firms that had at least three consecutive years of giving data and that were included on Compustat. The Taft profiles include the type of giving (direct giving, foundation giving, or both), some data on the amount of giving, information on decision makers, and the EIN for the corporate foundation sponsored by each corporation. The EIN enabled me to match particular private foundations from a private foundation database with specific firms.

Using the EIN, 990-PF data for each corporate foundation was obtained from the National Center for Charitable Statistics (NCCS) Core Trend Private Foundation Data Extract. This database reports foundation payins, payouts and asset values as well as limited other information from the 990-PF.<sup>13</sup> Thirty-six firms have different fiscal year ends for their corporate financial statements and their corporate foundations. Results are qualitatively unchanged when these firms are removed. Eleven firms have more than one associated foundation. Amounts from both foundations' 990-PFs were added together and included in the sample. If two companies

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<sup>13</sup> Because the NCCS data is relatively new, the NCCS recommends error checking procedures. Beginning with the calendar year 1998, full text versions of the 990-PFs are available at Guidestar (<http://www.guidestar.org>). When possible the NCCS data was compared to numbers reported in either the Taft Directory or from Guidestar. One particular problem with the NCCS Core Trend Private Foundation file is that it contains no data for 990-PFs filed in 1994. For most foundations, 990-PFs for fiscal year 1993 were filed in 1994. The Taft directory was used to supplement the NCCS data for 1993.

merged and their foundations did likewise, I did not include the transfer of assets from one foundation to the other as part of the payin. Finally it is possible that gifts received by the corporate foundation are not from the parent company. When non-parent contributions were identified, they were deducted from the payin amount because I am attempting to measure the expense recorded on the parent's books. Based on a review of full-text versions of the 990-PFs where it is possible to see the name of substantial contributors and some details listed in the Taft directory, material payins from an entity other than the parent corporation are rare.

Compustat provided all corporate financial data. Earnings are measured as earnings per share before extraordinary items. I obtained analyst forecast data from I/B/E/S. All prior period per share amounts are adjusted for stock splits. Marginal tax rates were obtained from John Graham (<http://www.duke.edu/~jgraham>) and are based on income after interest expense has been deducted. Graham (1996a, 1996b) provides a detailed description of the simulation procedure used to estimate the marginal tax rates.

Sample selection procedures are detailed in Table 1. From the Taft directory, 505 corporate philanthropy programs were identified over the period 1989 - 2000. Of these, 100 firms had direct giving programs only and were removed from the sample. In addition, 26 utilities were removed because regulation creates potentially different financial reporting objectives. Thirteen firms did not make a payin to their foundations during the entire sample period. These firms were eliminated because it is more likely that their foundations were established by someone other than the firm (i.e., the founder).<sup>14</sup> Lack of additional data further reduces the sample to 323 firms (approximately 1,700 firm year observations) for the main earnings management tests.

Panel A of Table 2 reports descriptive statistics on all observations used in the main earnings management tests. Firms with corporate foundations are relatively larger than the entire population of public companies, with 61.4% in the S&P 500. The mean (median) payout is \$0.05 (\$0.02) per share while the mean (median) payin is \$0.05 (\$0.01) per share. Mean (median)

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<sup>14</sup> For example, one of the eliminated foundations was the Kellogg Company Twenty-Five Year Employees Fund, which was created in 1944 around the same time as the W. K. Kellogg Foundation. In 1997, the Kellogg Employees Fund's book value of investment assets equaled \$175,000 while the market value equaled \$95 million, all in Kellogg stock. The difference in book value and market value indicates that this foundation was probably established with a one-time endowment and is not being used by the Kellogg Company as a channel for giving.

foundation assets per share equals \$0.08 (\$0.03). Untabulated results show that the average payout (payin) is 1.61% (0.91%) of pretax income for firm years with positive pretax income. Twenty-seven percent of the firms in this sample give only through their corporate foundation while 73% give both through a direct giving program and a foundation.<sup>15</sup> All major industries are represented in the sample, with durable manufacturing comprising the largest fraction (29.8%).

In order to demonstrate the extent to which the firm and the corporate foundation are aligned, information on which individuals run the foundation was collected from the Taft directory. The CEO of the firm is a foundation decision maker 47% of time. The CEO or CFO is a foundation decision maker 64% of the time. In fact, for almost 97% of the foundations at least one foundation decision maker listed the firm as his current employer.<sup>16</sup> Given this frequency, it is doubtful that foundations are effective in minimizing the use of contributions as a managerial perquisite by insulating executives from external pressures. The fact that the individuals who run the foundation are employed by the firm explains why foundation officers' compensation equals zero in most cases and an immaterial amount in the remaining few cases. This distinguishes corporate foundations from other types of foundations where determining appropriate compensation for nonprofit officers is a major issue.

## **5. Estimating Discretionary Contribution Expense**

In order to determine if managers strategically time foundation payins, an estimate of discretionary contribution expense must be developed. Using a research design similar to McNichols and Wilson (1988), I first develop a model of expected corporate foundation payins in the absence of discretion. Discretionary contribution expense is then defined as the difference between total payins and expected payins from the model.

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<sup>15</sup> Of the firms that give both via a foundation and directly, data on direct giving was available for only 192 firm years because firms are not required to disclose direct giving. Direct giving is much larger than foundation payins for these firms (mean direct giving equals \$23.8 million). The correlation between direct giving and payins equals .254 ( $p < .001$ ). Direct giving is not analyzed in this paper but descriptive statistics are included because a large portion of direct giving relates to contributions of inventory. Currently, with a few exceptions, there is no tax incentive for firms to give inventory through their foundations. However, some legislators have considered giving favorable tax treatment to inventory contributions to private foundations. If that were to occur, the magnitude of potential earnings management using a corporate foundation would increase significantly.

<sup>16</sup> In addition to the CEO and CFO, the most commonly listed individuals making foundation decisions are from the public affairs/communications and corporate counsel offices. The chief operating officer, human resources personnel and corporate board members were also mentioned frequently.

As discussed in Section 2 the flow of resources through a corporate foundation is as follows:

$$\begin{aligned} \text{FNA}_{t-1} + \text{Payin}_t - \text{Payout}_t + \text{Investment Income}_t \\ - \text{Excise Tax}_t - \text{Administrative Expenses}_t = \text{FNA}_t \end{aligned} \quad (1)$$

where FNA is the corporate foundation's net asset value at the end of the period, Payin is the expense recorded on the parent company's books, and Payout is the amount given to external charitable causes. Expected payins for a given firm in period  $t$  are modeled as a function of the variables in equation (1) as well as the marginal tax rate and measures of liquidity and profitability:

$$\begin{aligned} \text{Payin}_t = \alpha_0 + \alpha_1 \text{Payout}_t + \alpha_2 \text{Payout}_{t+1} + \alpha_3 \text{FNA}_{t-1} \\ + \alpha_4 \text{Other}_t + \alpha_5 \text{MTR}_t + \alpha_6 \text{ROA}_t + \alpha_7 \text{Cash}_t + e_t \end{aligned} \quad (2)$$

where Other is the sum of investment income, excise taxes, administrative expenses, and any other nonparent transfers to the foundation, MTR is the marginal tax rate, ROA is net income before payins scaled by lagged total assets, and Cash is total cash before payins scaled by assets. DPayin, the discretionary contribution expense, equals the residual  $e_t$ .

Because the foundation is a channel for corporate contributions, payins are discretionary with respect to timing, not amount. The amount that the foundation gives to outside charitable causes,  $\text{Payout}_t$  and  $\text{Payout}_{t+1}$ , should explain the amount that the firm gives to its foundation.<sup>17</sup>  $\text{Payout}_{t+1}$  is used as a proxy for management's expectation of future payouts under the assumption that managers have perfect foresight of future profit-maximizing payouts.<sup>18</sup> I predict that  $\alpha_1$  and  $\alpha_2$  will be positive because more foundation funding will be required as the foundation makes more gifts to external charities increases. As the level of foundation assets already in place increases, less need exists for the firm to make additional payins. Thus, I predict that payins will be decreasing in  $\text{FNA}_{t-1}$  ( $\alpha_3 < 0$ ). Similarly,  $\alpha_4$  should be negative as investment income is the dominant component of  $\text{Other}_t$ . When foundation assets earn strong investment

<sup>17</sup> This model is consistent with the profit maximizing and the managerial perquisite motives for corporate giving because, under either of these motives, the payout is still exogenously determined by management.

<sup>18</sup> Perfect foresight is a reasonable assumption in this case because corporate foundations normally fund the same programs for several years and often make multi-year commitments of resources. In fact, there is a specific section on the 990-PF for firms to report grants approved for future payment.

returns, firms can make lower payins and still maintain the desired level of payouts. Currently, firms are allowed to deduct contributions up to 10% of taxable income. As discussed in Clotfelter (1985), changes in statutory tax rates will affect the timing of gifts but not the long-run level of corporate giving. Foundations allow firms to time payins to maximize the corporate tax deduction. Thus, I also expect payins to be increasing in  $MTR_t (\alpha_5 > 0)$ .

It is often suggested that firms give more to charity when they have more capacity to give. Payins may increase mechanically with improved performance or increased liquidity. This is a potential problem if capacity is correlated with the partitioning variable in the earnings management tests. Discretionary payins could mistakenly be attributed to the earnings management partition rather than capacity to give. In order to control for capacity, ROA before payins and cash before payins are included in the model.

Table 3 presents the results from estimating equation (2) using OLS where the coefficients are assumed to be constant across firms. To control for cross-sectional differences in the level of giving all foundation-related variables are scaled by  $Payout_{t-1}$ . As the first row of Table 3 indicates, the coefficients on every foundation variable are significant in the predicted direction. The coefficient on MTR is positive and marginally significant while the coefficients on ROA and Cash are positive and significant.<sup>19</sup> The adjusted R-squared is 23.8%, indicating that a relatively large amount of the variation in foundation payins is discretionary.<sup>20</sup> Equation (2) was also estimated in two subperiods, from 1990 – 1994 and from 1995 – 1999. These subperiods were chosen for two reasons. First, in 1995 many nonprofit organizations adopted SFAS No. 116, “Accounting for Contributions Received and Contributions Made” and SFAS No. 124, “Accounting for Certain Investments Held by Not-for-Profit Organizations,” which may have affected the level of reported foundation assets. In addition, payins as a percentage of pretax income appear to drop off beginning in 1995, coinciding with foundation assets earning

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<sup>19</sup> Cash flow from operations (CFO) scaled by lagged assets was included as an alternative measure of liquidity. The explanatory power was lower when CFO was used, the coefficient on CFO was significant only in the second subperiod and the sample size was reduced.

<sup>20</sup> Alternatively, the model is not well specified. The model may also be estimated firm by firm. The problem with a time series approach for a single firm is the assumption that there is no earnings management in the estimation period. In addition, the lack of a long enough time series for a sufficient number of firms makes this approach infeasible. As a comparison, Jones (1991) reports an average adjusted R-squared of 23.2% for her time-series model of unexpected accruals. The explanatory power of single account estimation ranges from 90% (McNichols and Wilson, 1988) to 10% (Beatty et. al., 2002).

more in the strong market. For the period 1990 – 1994 all of the coefficients have the predicted sign except for the coefficients  $\text{Payout}_t$  and  $\text{Other}_t$ . It is not surprising that  $\text{Other}_t$  is not an important explanatory variable during this subperiod because investment earnings were not as large as in the next subperiod. For the 1995-1999 period, all coefficients are significant in the predicted direction except for the tax rate. Because the coefficients do vary by subperiod and explanatory power improves, the residual from estimating Equation (2) by subperiod is used as an estimate of discretionary payin,  $\text{DPayin}$ , in the main tests of earnings management.

In order to assess the magnitude of discretion provided by corporate foundations, I calculated discretionary payins per share. Untabulated results indicate that twenty-one percent of firms recorded a discretionary payin that increased earnings per share by an amount greater than or equal to \$0.01. Seventeen percent of firms recorded a discretionary payin that decreased earnings per share by an amount greater than or equal to \$0.01. Thirty (twenty-six) percent of firms in the sample used  $\text{DPayins}$  to increase (decrease) earnings per share by at least \$0.005. The magnitude of discretion afforded by corporate foundations is not large enough by itself for many firms to achieve their financial reporting objectives. However,  $\text{DPayins}$  are large enough to make a useful contribution to a portfolio of discretionary devices that managers use to manipulate earnings. The Pearson (Spearman) correlation between  $\text{DPayins}$  and unexpected accruals is .052 (.050) with a significance of  $p = .054$  ( $p = .069$ ).<sup>21</sup> This marginally significant correlation provides some evidence consistent with managers' use of payins as one tool in a portfolio of discretionary choices.

## 6. Empirical Results

### 6.1.1 Earnings Management Around Zero Change in Annual Earnings

To test H1 and H2, observations are placed in portfolios based on the sign and magnitude of the change in annual reported earnings per share. These portfolios can be formed in either of two ways: by setting an equal width of change in earnings per share or by setting an equal

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<sup>21</sup> Unexpected accruals, scaled by lagged total assets, are estimated from a cross-sectional Jones (1991) model, using all relevant firms in Compustat for the estimation. The top and bottom 1% of unexpected accruals and  $\text{DPayins}$  were removed.

number of observations. The advantage of equal width portfolios, used by Burgstahler and Dichev (1997) and Degeorge et al. (1999), is that they focus attention on the frequency with which earnings changes of a particular sign and magnitude occur. Specifically, equal width portfolios are useful in determining whether there are unusual frequencies of reported earnings numbers that are consistent with earnings management around the densely populated middle of the distribution.

The histogram in Figure 2, which is based on equal width portfolios, confirms that the Burgstahler and Dichev (1997) result of a higher frequency of small earnings increases than small earnings decreases holds for the sample of firms with corporate foundations. Consistent with prior research (Degeorge et. al., 1999; Beatty et. al., 2002; Beaver et. al., 2003), the portfolio width used in constructing the histogram is twice the interquartile range times the negative cube root of sample size. This portfolio width formula produces a bin width of 17.86 cents, rounded down to 15 cents.<sup>22</sup> The portfolio immediately above zero change in earnings per share includes observations in the interval [.01, .15] while the portfolio immediately below zero change in earnings per share includes observations in the interval [-.15, -.01].<sup>23</sup> The frequency of small increases is significantly larger than the frequency of small decreases, indicating that the region of the earnings change distribution immediately above zero is a potentially fruitful region to explore earnings management.

One disadvantage of using equal width portfolios to test for *direct* evidence of earnings management is that it is difficult to make inferences beyond the shoulders of the distribution of earnings changes because there are a small number of observations in any given portfolio and outliers have a dominating impact. Portfolios with an equal number of observations allow an analysis across the entire earning changes distribution. Thus, I use portfolios formed with an equal number of observations in the main test of earnings management. In Table 4 portfolios are formed with an equal number of observations relative to zero change in annual earnings per

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<sup>22</sup> This portfolio width is larger than prior research because the number of observations in this sample is smaller than those used in other studies.

<sup>23</sup> The tests in this section focus on firms with small increases in earnings per share. As such, firms with zero change in earnings are excluded. An alternative hypothesis is that firms that meet or slightly beat prior year earnings are more likely to make income-increasing foundation payins. There are only 4 observations with zero change in annual earnings per share. When these observations are included in the same portfolio as observations with small increases in earnings, results are qualitatively unchanged.

share. Similar to Beaver et. al. (2003), the number of observations in each portfolio approximately equals the number of observations in the first interval immediately above zero in Figure 2.<sup>24</sup>

Table 4 reports results consistent with the first hypothesis that firms which slightly beat prior year earnings have lower discretionary contribution expense (i.e., greater income-increasing behavior) than firms that just missed this benchmark. The third and fourth columns of Table 4 provide the median and mean discretionary payin (DPayin) across the distribution of annual earnings changes. The portfolio immediately above zero change, which includes the interval [.01, .15], has a mean DPayin equal to -.257 and a median DPayin equal to -.188. The portfolio immediately below zero change, which includes the interval [-.01, -.29], has a mean DPayin equal to -.080 and a median DPayin equal to -.096. If no earnings management takes place, DPayins will equal zero. In fact, mean DPayins in the portfolio immediately above zero earnings change are significantly different from zero ( $p < .01$ ) while mean DPayins in the portfolio immediately below zero earnings change are not different from zero ( $p = .132$ ). In addition, a one-sided hypothesis test of the difference between the means of these two portfolios yields a p-value of 0.015. The portfolio containing firms that slightly beat prior year earnings has not only lower discretionary payins (i.e., greater income-increasing behavior) than the portfolio immediately below zero, but also lower mean and median DPayins than any other portfolio in the distribution.<sup>25</sup> Finally, the frequency of firms reporting negative discretionary contribution expense in the portfolio immediately above zero change (61.82%) is greater than in any other portfolio, although the portfolio immediately below zero earnings change also has a high frequency of firms engaging in income-increasing earnings management. Taken as a whole, the results in Table 4 suggest that firms which reported small increases in earnings used discretionary payins to increase earnings. These results are consistent with the theory that the discontinuity around zero in the earnings change distribution arises, in part, from discretionary behavior to avoid earnings declines.

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<sup>24</sup> Results using portfolios of equal width (\$0.15) are similar to results presented in Table 4. In addition, inferences are unchanged when the portfolio width is reduced to \$0.10.

<sup>25</sup> Only one other portfolio (-.83 to -.30) has a mean DPayin significantly different from zero. The mean DPayin in the portfolio immediately above zero (-.257) is significantly different from the mean DPayin in this portfolio (-.116).

Panel A of Figure 3 provides additional evidence about how firms are using discretionary payins. This figure shows the 1<sup>st</sup> through 100<sup>th</sup> percentiles of DPayins for firms in the portfolio immediately above zero change in annual earnings and for firms in the portfolio immediately below zero change in earnings. The percentiles of the distribution of DPayins for firms with small earnings increases are systematically lower (i.e., more income-increasing) than the percentiles of the distribution of DPayins for firms with small earnings decreases. The difference in DPayins between these portfolios exists throughout almost the entire distribution, rather than being driven by a small number of firms in the income-increasing tail. These results suggest many firms use DPayins in a small way rather than a few firms using DPayins in a large way. Panel B creates the same figure on a per share basis. Again, DPayins per share are systematically lower for small earnings increase firms than for small earnings decrease firms, suggesting the mean results are not driven by a few firms taking excessive income-increasing DPayins.

### *6.1.2 Robustness Tests of Earnings Management to Slightly Beat a Benchmark*

#### Controlling for Censored Data

Table 5 reports robustness tests of H1. As indicated in Figure 1, resources flow in one direction between the firm and its foundation. A corporate foundation can not legally give funds back the corporation. Thus, payins are censored at zero. Twenty percent of the observations in this sample (356 firm years) have zero payins. To ensure that the results are not affected by using OLS on censored data, Panel A of Table 5 reports the results of estimating expected foundation payins (Equation 2) using a model suggested by Tobin (1958).<sup>26</sup> Similar to the OLS model, coefficients on all of the foundation and capacity variables are significant in the predicted direction. In addition, the coefficient on MTR is positive and significant. Indicator variables are next included in the estimation in order to test the first hypothesis. The indicator variable ‘Above’ equals one if the observation falls in the portfolio immediately above zero earnings

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<sup>26</sup> A Tobit model was not used in the main tests of the first hypothesis because it is useful to examine discretionary payins across the entire distribution. This would not be possible with a Tobit model because residuals calculated using the censored distribution are meaningless. In addition, previous research (Navarro, 1999b) reports that Tobit estimation of total contribution expense produces virtually identical results to OLS.

change, and zero otherwise. The indicator variable ‘Below’ equals one if the observation falls in the portfolio immediately below zero earnings change, and zero otherwise. The portfolios are formed using an approximately equal number of observations and are the same portfolios listed in Table 4. If no earnings management takes place, the coefficients on the two indicator variables should equal zero. The coefficient on Above (-.424) is significantly negative, indicating that firms in this portfolio are more likely making income-increasing foundation choices. The coefficient on Below (-.184) is also negative but much smaller in magnitude than the coefficient on Above. Using a likelihood ratio test (Allison, 1995), the difference between these two coefficients is significant ( $p = .022$ ), consistent with H1.

#### Portfolios Formed Around Zero Change in Fourth Quarter Earnings

The relatively small size of contribution expense means that earnings management tests potentially have low power, and thus, it is important to identify precisely the earnings benchmark toward which earnings are managed. Previous research indicates an increased frequency of real earnings management in the fourth quarter (Hand, Hughes and Sefcik, 1990; Bartov, 1993). While corporate contribution data is only available on an annual basis, it is possible to view the schedule of contributors in the full-text versions of the 990-PF available after 1998. Even though there is no requirement to report the date that contributions are received, a limited number of foundations do include the date received on the schedule of contributors. Of 197 firm years where it was possible to determine in what quarter the payins were made, 139 (71%) of the observations made payins in the fourth quarter. For this reason, I also examine discretionary payins over the distribution of changes in fourth quarter earnings, assuming all discretion was exercised in the fourth quarter.

Panel B of Table 5 reports results for DPayins in portfolios formed using changes in fourth quarter earnings per share. Fourth quarter earnings changes are calculated as fourth quarter earnings per share in the current year less fourth quarter earnings per share from the previous year. The same portfolio width formula discussed above was used to produce a bin width of 6 cents, rounded down to 5 cents. The mean (median) DPayin in the portfolio immediately above zero change, which includes the interval [.01, .05], is -.200 (-.225) and is

significantly lower (i.e., more income-increasing) than the mean (median) DPayin in the portfolio immediately below zero. This portfolio has a greater income-increasing mean and median DPayin than any other portfolio in the distribution. In addition, the frequency of income-increasing DPayins in the portfolio immediately above zero (63.68%) is much higher than in the rest of the distribution and is significantly different from the frequency of income-increasing DPayins in the portfolio immediately below zero.

#### Portfolios Formed Using Analyst Forecast Errors

Prior research (Degeorge et. al., 1999; Abarbanell and Lehavy, 2003) provides evidence that firms engage in earnings management in order to meet or beat analysts' expectations. Panel C of Table 5 reports results for DPayins in portfolios formed using annual analyst forecast errors. Analyst forecast errors are calculated as the difference between actual earnings per share from I/B/E/S and the median analyst forecast. The median analyst forecast is calculated using the forecasts outstanding at year end from the I/B/E/S detail file. The same portfolio width formula discussed above was used to produce a bin width of 2.2 cents, rounded down to 2 cents. The mean (median) DPayin in the portfolio immediately above zero forecast error, which includes the interval [.01, .02], is -.145 (-.186) and is lower than the mean (median) DPayin in the portfolio immediately below zero forecast error. However, only the median DPayins are significantly different. Again, this portfolio has a greater income-increasing mean and median DPayin than any other portfolio in the distribution. In addition, the frequency of income-increasing DPayins in the portfolio immediately above zero (60.9%) is higher than in the rest of the distribution. One explanation for the insignificant difference in mean DPayins and frequency of income-increasing DPayins between firms that had small pessimistic forecast errors and firms that had small optimistic forecast errors is that firms that slightly missed the forecast have other financial reporting objectives that cause them to engage in income-increasing earnings management. Sixty-six percent of the firms that slightly missed the median analyst forecast reported increases in earnings per share. This result is consistent with Degeorge et. al. (1999) which finds that previous period's earnings are an important threshold regardless of whether earnings meet analysts' expectations.

### *6.1.3 Earnings Management Around Zero Earnings Changes and Strings of Earnings Increases*

Table 6 reports statistical tests of whether the discretionary payin made by a firm that slightly beat earnings is associated with the firm's stock price sensitivity to earnings news. In Panel A, I classify firms that reported at least five years of non-negative changes in earnings per share through year t-1 as more sensitive to earnings news.<sup>27</sup> Specifically, examining the portfolio of firms with small earnings increases, firms with strings of consecutive earnings growth lasting at least five years have a mean (median) DPayin equal to -.447 (-.464) while firms without long strings of consecutive earnings growth have a mean (median) DPayin equal to -.195 (-.092). Consistent with H2, a one-sided hypothesis test of the difference between the means (medians) of these two portfolios yields a p-value of 0.026 (.011). In addition, firms that had long strings were more likely to report negative DPayins (75.6%) compared to other firms (57.3%). Thus firms with small positive earnings changes were more likely to arrive at post-managed earnings using income-increasing earnings management if there was a long string of consecutive earnings growth through year t-1. One explanation for this result is that firms have to use discretionary payins because other discretionary devices have been used up maintaining the string. As a comparison, results for the portfolio of firms with small earnings decreases are also included in Panel A. Note that there is no significant difference in the magnitude of DPayins or the frequency of income-increasing behavior based on the length of the prior earnings string for these firms.

Instead of arbitrarily establishing a cut-off at five years, Panel B examines if DPayins are decreasing (i.e., become more income-increasing) in the length of the earnings string for firms that reported a small increase in earnings. The dependent variable is Payins and the model includes all the variables discussed in Table 3. The indicator variable 'Above' equals one if the observation falls in the portfolio immediately above zero earnings change, and zero otherwise. String equals the number of years of consecutive growth in earnings per share through year t-1, up to a maximum of nine years. Similar to Panel A of Table 5, the coefficient on Above is significantly negative in the first model. The second model indicates that the length of the prior

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<sup>27</sup> Five years is consistent with the string length that Barth et al. (1999) used in their main tests. Myers and Skinner (2002) use a length of 17 quarters. As indicated in the table, results are robust to varying string lengths.

earnings string does not explain payins for the overall sample. However, as seen in the third model, the length of the string is important for firms in the Above portfolio. The coefficient on the interaction between Above and String is significantly negative while the coefficient on Above is now insignificant. This means that the income-increasing DPayins exhibited by firms in the small increase portfolio can be attributed to firms with high stock price sensitivity as measured by the length of the string of prior earnings increases and that the magnitude of these DPayins increases with the length of the string.

### *6.2.1 Earnings Management to Create Reserves and Subsequent Earnings Performance*

Panel A Table 7 reports tests of whether firms that made large income-decreasing foundation payins are more likely to report earnings increases in subsequent years consistent with using the foundation as a reserve. This analysis includes only firms that recorded an income-decreasing DPayin in the current year and that had data available on earnings through year  $t+3$ . These firms were placed in portfolios based on the size of their DPayin where high DPayins firms engaged in the most income-decreasing behavior. I predict that firms with high DPayins are more likely to beat earnings in future periods because they have created a reserve to draw upon if necessary. In order to test this prediction, I count the number of firms in each portfolio that were able to report consecutive, nonnegative changes in annual earnings for the three subsequent years (i.e.,  $\text{earnings}_{t+1} \geq \text{earnings}_t$ ,  $\text{earnings}_{t+2} \geq \text{earnings}_{t+1}$ , and  $\text{earnings}_{t+3} \geq \text{earnings}_{t+2}$ ). Forty-four percent (twenty-nine percent) of the firms which recorded large, income-decreasing DPayins were able to record strings of earnings increases in the subsequent two (three) years. Consistent with H3, these firms were significantly more likely to report consecutive earnings growth in future periods than firms which recorded small DPayins.

However, Table 7 indicates that firms which reported high DPayins also reported high earnings increases in the current year. In order to determine whether the higher likelihood of an earnings string is driven by stronger performing firms or available reserves, the sample is furthered portioned into firms that beat prior year earnings in year  $t$  and firms that missed prior year earnings in year  $t$ . Firms that beat this benchmark in year  $t$  and recorded large income-decreasing DPayins are more likely to have created a cookie-jar reserve while firms that missed

this benchmark in year  $t$  and recorded large income-decreasing DPayins are more likely to have engaged in an earnings bath. Consistent with cookie-jar reserving, firms that reported an increase in earnings in the current year and made large, income decreasing DPayins were significantly more likely to report strings of earnings increases in subsequent years than firms that reported an increase in earnings in the current year and recorded low DPayins. This result does not appear to be driven by performance as there is no difference in current year earnings changes between High and Low firms. On the other hand, Table 7 does not present evidence consistent with a big bath. There is no significant difference in the percentage of firms achieving subsequent strings of earnings improvements across firms that missed the benchmark in the current year.

### *6.2.2 Foundation Reserves in Subsequent Years*

Corporate foundations offer a unique opportunity to examine potential accounting reserves because the 990-PFs provide us with a way to measure those reserves. Edie (1999) reports that most firms maintain foundation assets equal to 2-3 times expected payouts as a cushion against unforeseen events. If a firm creates a cookie jar with its foundation, it will pay in more funds than are necessary for an adequate cushion. Subsequently, that reserve will decrease as it gets drawn off in years when it is necessary to increase earnings.

Panel B of Table 7 reports mean foundation reserves calculated as foundation assets divided by expected payouts for year  $t$  through year  $t+3$  for firms which made income decreasing discretionary payins in the current year while still reporting an earnings increase. Observations are placed in portfolios based on the size of the DPayin similar to Panel A and whether or not they reported a string of earnings increases over the subsequent three years. Firms that made large income-decreasing DPayins to their foundations have average reserves of 7.765 (no subsequent string) and 5.314 (with subsequent string). These reserves are higher than “necessary” and, not surprisingly, higher than firms that made lower DPayins to their foundations. Over time, the reserve decreases monotonically for the High DPayin firms that reported a three year earnings string. This pattern of consistent decreases in reserves does not occur in any of the other portfolios. These results are consistent if observations are partitioned by a subsequent two year string of earnings increases rather than a three year string of earnings

increases. The decrease in the reserve over time happens because these firms make more payouts than payins, increasing earnings by using off-balance sheet assets. This decreasing reserve pattern is consistent with reaching into the cookie jar.

## **7. Conclusion**

In this paper I present evidence that managers manipulate earnings by strategically timing payins to their corporate foundations. Results indicate that firms which reported small increases in earnings, particularly firms with high stock price sensitivity to earnings news, made the most income-increasing foundation funding choices. In addition, the evidence suggests that firms which made large, income-decreasing foundation funding choices were more likely to report strings of earnings increases in subsequent periods, consistent with the use of a cookie jar reserve. My results are not consistent with firms' use of discretionary payins as part of an earnings bath. Because firms have many tools available to manage earnings, the ability to detect earnings management in a single account is low. Nevertheless, results suggests that foundation payins are one device in a portfolio of discretionary choices that firms use

Documenting the use of corporate foundations to meet financial reporting objectives contributes to the earnings management literature, as well as to cross-disciplinary research on how management incorporates corporate philanthropy into the firm's overall strategies. It is important to note that tests in this paper do not address whether anyone is fooled by this type of earnings management or whether the manipulation of foundation payins to meet financial reporting objectives has adverse affects on corporate grants to outside charities. Recognizing the ways in which firms exploit their corporate philanthropy programs does not necessarily negate the positive impact that corporate giving can have on shareholder welfare and social welfare. Thus, evidence in this paper is one piece of a larger puzzle that must be considered when formulating public policy concerning corporate philanthropy.

## Appendix

The following table lists foundation inflows and outflows for AT&T from 1990 through 1994. AT&T's foundation activities are renowned for being well-aligned with AT&T's business objectives (Smith, 1994). While payouts remained fairly stable, payins fluctuated considerably. This table also lists expected payins which were calculated using the model described in Section 5. In 1990, AT&T made no payin to its foundation but made \$30 million in grants. The model predicted that AT&T would pay in \$22.7 million. By forgoing a payin in 1990, AT&T increased earnings by \$22.7 million or \$0.02 per share. AT&T reported an increase in earnings per share of \$0.01 in 1990. Thus, all else equal, the choice not to make a payin resulted in AT&T reporting a positive earnings change.

Year	Payins (\$ mil)	Payouts (\$ mil)	Expected Payin (\$ mil)	Chg. in EPS
1990	0.00	30.13	22.70	0.01
1991	15.00	31.94	22.81	-2.11
1992	50.00	31.54	26.27	2.46
1993	24.95	32.16	21.94	0.08
1994	50.11	34.60	29.52	0.07

## References

- Abarbanell, J., and R. Lehavy. "Can Stock Recommendations Predict Earnings Management and Analysts' Earnings Forecast Errors?" *Journal of Accounting Research* 41 (2003): 1 – 31.
- Allison, P. *Survival Analysis Using SAS: A Practical Guide*. (1995)
- Baber, W., P. Fairfield and J. Haggard. "The Effect of Concern about Reported Income on Discretionary Spending Decisions: The Case of Research and Development." *The Accounting Review* 66 (1991): 818-829.
- Barnard, J. "Corporate Philanthropy, Executives' Pet Charities and the Agency Problem." *New York Law School Law Review* 41 (1997): 1147 – 1178.
- Baron, D. "Private Politics, Corporate Social Responsibility and Integrated Strategy." *Journal of Economics and Management Strategy* 10 (1997): 7 – 45.
- Barta, P. "Freddie Mac Donates \$225 Million." *The Wall Street Journal* (December 09, 2002).
- Barth, M., J. Elliott, and M. Finn. "Market Rewards Associated with Patterns of Increasing Earnings." *Journal of Accounting Research* 37 (1999): 387-413.
- Bartov, E. "The Timing of Asset Sales and Earnings Manipulation." *The Accounting Review* 68 (1993): 840-855.
- Beatty, A., B. Ke, and K. Petroni. "Earnings Management to Avoid Earnings Declines Across Publicly and Privately Held Banks." *The Accounting Review* 77 (2002):547 – 570.
- Beaver, W., M. McNichols, and K. Nelson. "An Alternative Interpretation of the Discontinuity in Earnings Distributions." *Stanford University working paper* (2004).
- Beaver, W., M. McNichols, and K. Nelson. "Management of the Loss Reserve Accrual and the Distribution of Earnings in the Property-Casualty Insurance Industry." *Journal of Accounting and Economics* 35 (2003): 347 – 376.
- Belsley, D.A., Kuh, E., and Welsch, R.E. *Regression Diagnostics*. New York: John Wiley & Sons (1980).
- Boatsman, J., and Gupta, S. "Taxes and Corporate Charity: Empirical Evidence from Micro-Level Panel Data." *National Tax Journal* 49 (1996): 193 – 213.
- Breeden, R. "Remarks: Giving It Away: Observations on the Role of the SEC in Corporate Governance and Corporate Charity." *New York Law School Law Review* 41 (1997): 1179-1186.
- Burgstahler, D., and I. Dichev. "Earnings Management to Avoid Earnings Decreases and Losses." *Journal of Accounting and Economics* 24 (1997): 99 – 126.
- Clotfelter, C. *Federal Tax Policy and Charitable Giving*. Chicago: University of Chicago Press (1985).
- Dechow, P., and D. Skinner. "Earnings Management: Reconciling Views of Accounting Academics, Practitioners and Regulators." *Accounting Horizons* (2000): 235-250.
- Degeorge, F., J. Patel, and R. Zeckhauser. "Earnings Management to Exceed Thresholds." *Journal of Business* 72 (1999): 1-33.
- Eddie, J. *Corporate Giving and the Law*. Washington, D.C.: Council on Foundations (1999).

Galaskiewicz, J. "An Urban Grants Economy Revisited: Corporate Charitable Contributions in the Twin Cities, 1979-81, 1987-89." *Administrative Science Quarterly* 42 (1997): 445-471.

Giving USA - The Annual Report on Philanthropy. Indianapolis: The American Association of Fundraising Counsel Trust for Philanthropy (2003).

Graham, J.R. "Debt and the Marginal Tax Rate." *Journal of Financial Economics* 41 (1996): 41-73.

Graham, J.R. "Proxies for the Corporate Marginal Tax Rate." *Journal of Financial Economics* 42 (1996): 187-221.

Hand, J. "Did Firms Undertake Debt-Equity Swaps for an Accounting Paper Profit or True Financial Gain?" *The Accounting Review* 64 (1989): 587-623.

Hand, J., P. Hughes, and S. Sefcik. "Insubstance Defeasances: Security Price Reactions and Motivations." *Journal of Accounting and Economics* 13 (1990): 47 – 89.

Healy, P. "The Effect of Bonus Schemes on Accounting Choices." *Journal of Accounting and Economics* 7 (1985): 85-107.

Helland, E. and J. Smith. "Corporate Philanthropy." Claremont McKenna College working paper (2003).

Hwang, L., and S. Ryan. "The Varied Nature and Pricing Implications of Discretionary Behavior: Big Baths, Loss Avoidance and Sugarbowling." New York University working paper (2000).

Jennings, M., and C. Cantoni. "An Uncharitable Look at Corporate Philanthropy." *The Wall Street Journal* (December 22, 1998).

Jensen, M.C., and W.H. Meckling. "Theory of the Firm: Managerial behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics* 3 (1976): 305 – 360.

Johnson, O. "Corporate Philanthropy: An Analysis of Corporate Contributions." *Journal of Business* 39 (1966): 489 – 504.

Jones, J. "Earnings Management During Import Relief Investigations." *Journal of Accounting Research* 29 (1991): 193 – 228.

Kopecki, D. "Freddie Mac's Use of Reserve Accounts Falls Under Scrutiny." *The Wall Street Journal*. (July 8, 2003)

McKinnon, J. "Fannie Mae Irks Rivals With Ads By Its Foundation." *The Wall Street Journal* (August 15, 2002).

McNichols, M., and P. Wilson. "Evidence of Earnings Management from the Provision for Bad Debts." *Journal of Accounting Research* 26 (1988): 1- 31.

Myers, L. and D. Skinner. "Earnings Momentum and Earnings Management." University of Michigan working paper (2002).

Murphy, K. "Performance Standards in Incentive Contracts." University of Southern California working paper (1999).

Navarro, P. "Why Do Corporations Give to Charity?" *Journal of Business* 61 (1988): 65 – 93.

Navarro, P. "The Income Elasticity of Corporate Contributions." *Quarterly Review of Economics and Business* 28 (1988):66 – 75.

Neiheisel, S. *Corporate Strategy and the Politics of Goodwill*. New York: P. Lang (1994).

Petroni, K. "Optimistic Reporting in the Property-Casualty Insurance Industry." *Journal of Accounting and Economics* 15 (1992) 485 – 508.

Renz, L., and S. Lawrence. "Foundation Growth and Giving Estimates." *The Foundation Center* (2003).

Schwartz, R. "Corporate Philanthropic Contributions." *The Journal of Finance* 23 (1968): 479 – 497.

Smith, C. "The New Corporate Philanthropy." *Harvard Business Review* (May-June 1994): 105-116.

Smith, H. "To Have or Have Not: A Corporate Foundation." New York: Council for Aid to Education (1993).

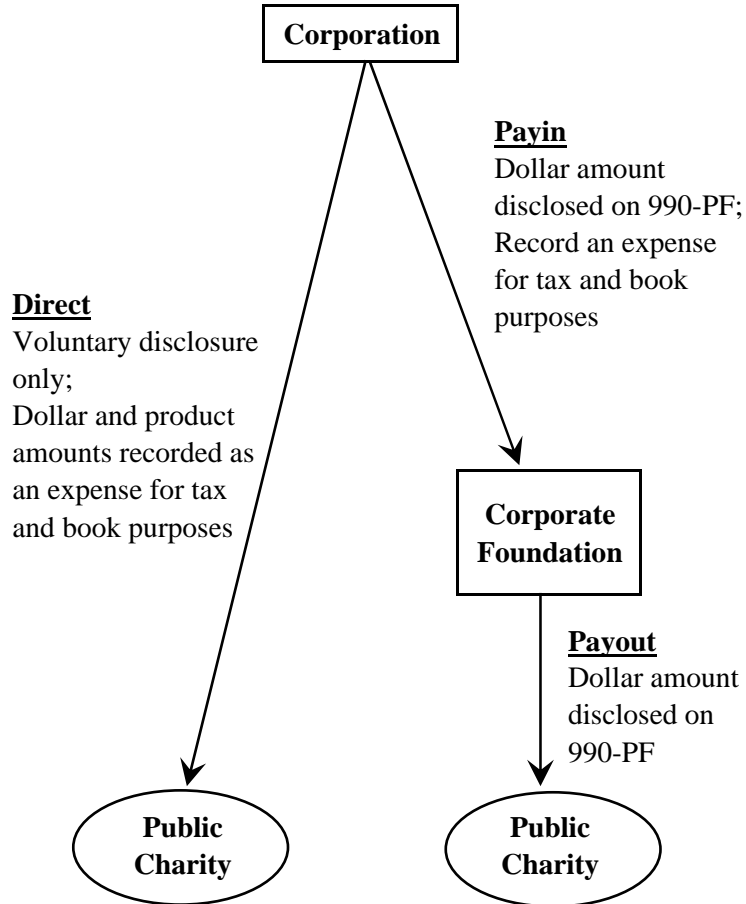
St. John, S. "Three Ways to Give that Maximize the Impact of Grants." *Triangle Business Journal* (June 12, 2000).

Taft Corporate Giving Directory, Editions 15 - 23. Farmington Hills, MI: The Taft Group (1994 – 2002).

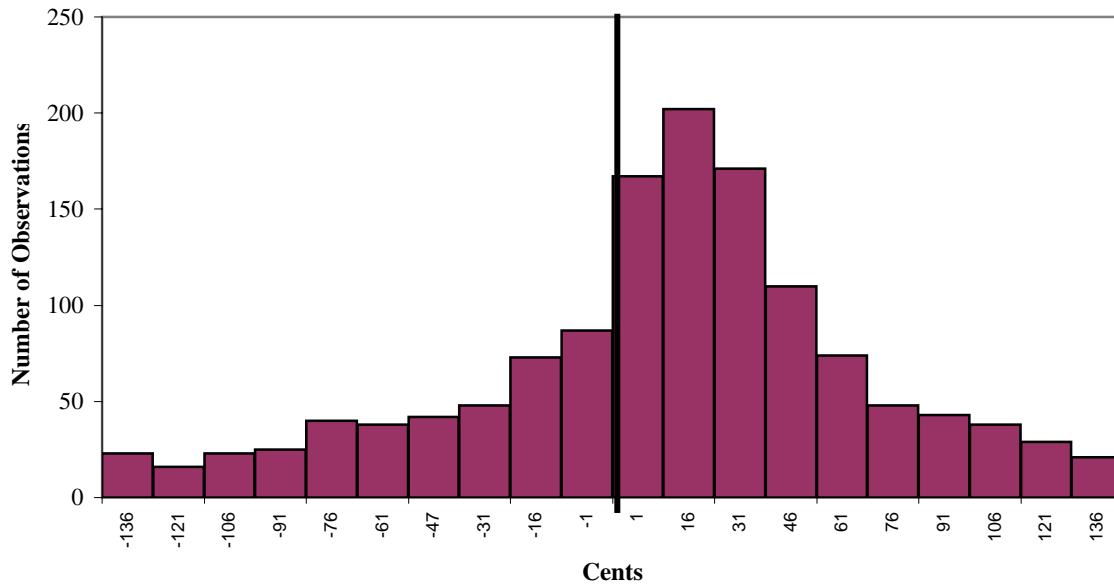
Useem, M., and S. Kutner. "Corporate Contributions to the Nonprofit Sector: The Organization of Giving, and the Influence of the Chief Executive Officer and Other Firms on Company Contributions in Massachusetts." Yale University Program on Non-Profit Organizations Working Paper No. 94 (1984).

Williams, R., and J.D. Barret. "Corporate Philanthropy, Criminal Activity and Firm Reputation: Is There a Link?" *Journal of Business Ethics* 26 (2000): 341 – 350.

**FIGURE 1**  
**Types of Corporate Philanthropy**



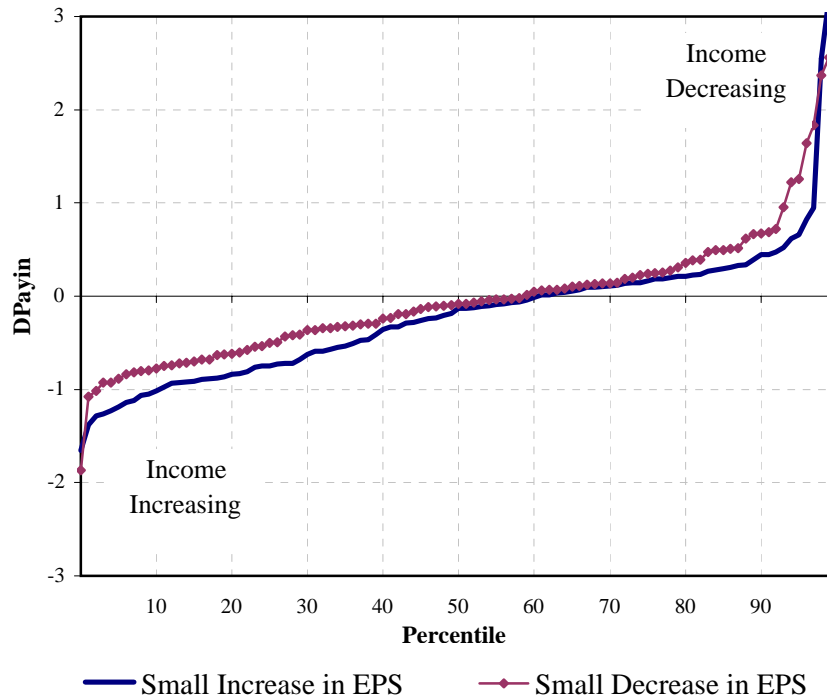
**FIGURE 2**  
**Histogram of Changes in Annual Earnings Per Share**  
(Portfolio Width = 15 cents)



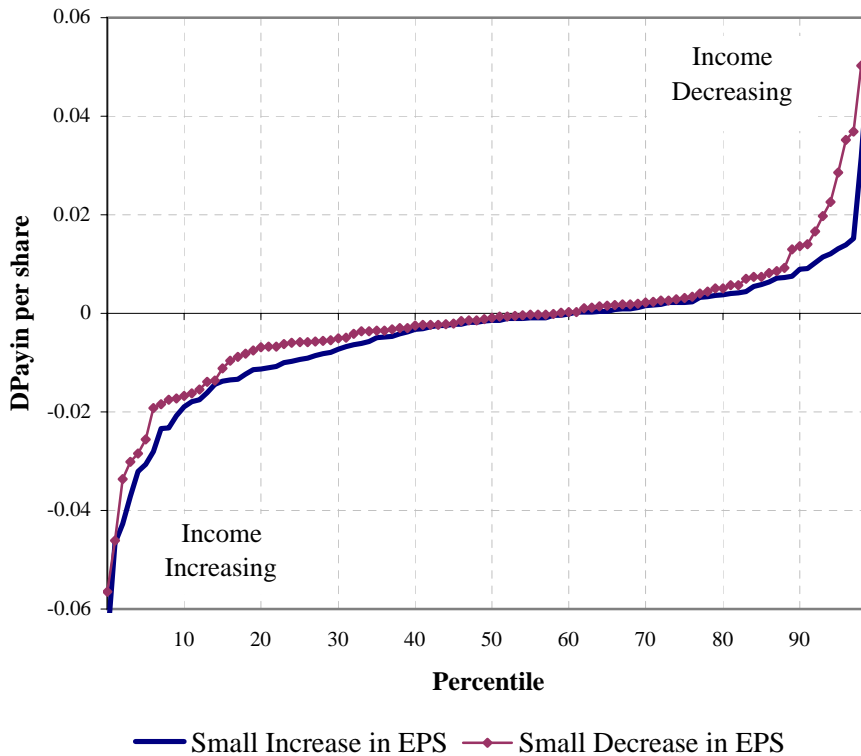
**FIGURE 3**

**Percentiles of Discretionary Payins for Firms with Small Increases and Decreases in Annual EPS**

*Panel A: Discretionary Payins*



*Panel B: Discretionary Payins per share*



**TABLE 1**  
**Sample Selection**

	Firms	Firm Years
All firms from Taft Directory	505	4,935
Less firms with no foundation	100	727
Less utilities (SIC 4900 - 4999)	26	285
Less firms that did not make any payins during the sample period	13	144
	366	3,779
Less firm years with no marginal tax rate data		660
Less firms years with no ROA data		35
Less firm years with insufficient foundation data necessary to estimate expected payin		1,339
Less firms years with no change in earnings per share data		14
	323	1,731

**TABLE 2**  
**Statistics for Firms with Corporate Foundations**

*Panel A: Descriptive Statistics (n = 1,745)*

	%	Mean	Q3	Median	Q1
<b>Firm Statistics</b>					
% in S&P 500	61.4%				
Median BV of Equity (\$ millions)		2,921	3,338	1,062	394
String (years)		2.15	3.00	1.00	0.00
<b>Corporate Giving Statistics</b>					
Payout / Share (\$)		0.05	0.04	0.02	0.01
Payin / Share (\$)		0.05	0.03	0.01	0.00
Foundation Assets / Share (\$)		0.08	0.11	0.03	0.01
Payouts (\$ millions)		3.59	3.72	1.36	0.60
Payins (\$ millions)		2.90	2.50	0.68	0.12
Foundation Assets (\$ millions)		10.53	10.43	2.27	0.47
Direct Giving (\$ millions) n = 192		23.77	26.73	12.51	3.53
Investment Income and Other Foundation Flows (\$ millions)		1.23	0.95	0.14	0.01
<b>Foundation Governance Statistics</b>					
CEO is a foundation decision maker	47.4%				
CEO or CFO is a foundation decision maker	63.8%				
Firm employee is a foundation decision maker	96.5%				
Estimated Payout Ratio		137.4%	116.9%	44.7%	18.6%
Foundation Officers' Salary as % of Total Foundation Expenses		0.2%	0.0%	0.0%	0.0%

**TABLE 2 (con'td)**  
**Statistics for Firms with Corporate Foundations**

*Panel B: Pearson (Above Diagonal) / Spearman (Below Diagonal) Correlation*

	Payin	Payout	FNA	MTR	Other	ROA	Cash	String
Payin	1.000	0.727 <.0001	0.300 <.0001	0.036 0.133	0.106 <.0001	0.046 0.0543	-0.019 0.433	0.044 0.066
Payout	0.537 <.0001	1.000	0.508 <.0001	0.029 0.229	0.362 <.0001	0.044 0.069	-0.067 0.005	0.093 0.000
FNA	0.065 0.006	0.487 <.0001	1.000	0.059 0.014	0.630 <.0001	0.045 0.062	0.024 0.326	0.097 <.0001
MTR	0.016 0.518	0.000 0.999	0.096 <.0001	1.000	0.042 0.080	0.152 <.0001	0.050 0.037	0.146 <.0001
Other	-0.119 <.0001	0.326 <.0001	0.680 <.0001	0.088 0.000	1.000	0.072 0.003	0.035 0.145	0.103 <.0001
ROA	0.059 0.013	0.011 0.645	0.072 0.003	0.223 <.0001	0.079 0.001	1.000	0.244 <.0001	0.340 <.0001
Cash	0.025 0.304	-0.098 <.0001	-0.034 0.152	0.043 0.073	-0.015 0.536	0.183 <.0001	1.000	0.068 0.004
String	0.069 0.004	0.030 0.213	0.053 0.028	0.160 <.0001	0.066 0.006	0.328 <.0001	0.076 0.002	1.000

String equals the number of consecutive non-negative changes in annual eps through year t-1. Investment Income and Other equals foundation investment income plus any noncorporate transfers into the foundation minus foundation excise taxes minus foundation administrative expenses. The Estimated Payout Ratio equals payouts divided by the average of beginning and ending total foundation assets. FNA is the corporate foundation's net asset value at the end of the period. MTR is the marginal tax rate. ROA equals net income before payins scaled by lagged total assets. Cash equals cash and cash equivalents before payins scaled by assets.

**TABLE 3**  
**OLS Model of Expected Foundation Payin**

$$\text{Payin}_t = \alpha_0 + \alpha_1 \text{Payout}_t + \alpha_2 \text{Payout}_{t+1} + \alpha_3 \text{FNA}_{t-1} + \alpha_4 \text{Other}_t + \alpha_5 \text{MTR}_t + \alpha_6 \text{ROA}_t + \alpha_7 \text{Cash}_t + e_t$$

	Payout <sub>t</sub>	Payout <sub>t+1</sub>	FNA <sub>t-1</sub>	Other <sub>t</sub>	MTR <sub>t</sub>	ROA <sub>t</sub>	Cash <sub>t</sub>	Adj. R <sup>2</sup>	n
All	0.368 ( $< 0.01$ )	0.464 ( $< 0.01$ )	-0.024 ( $< 0.01$ )	-0.093 ( $< 0.01$ )	0.281 (0.076)	0.011 ( $< 0.01$ )	0.012 ( $< 0.01$ )	0.238	1749
1990 - 1994	-0.067 (0.500)	0.903 ( $< 0.01$ )	-0.032 ( $< 0.01$ )	0.024 (0.534)	0.469 (0.088)	0.015 (0.017)	0.010 (0.041)	0.318	718
1995 - 1999	0.350 ( $< 0.01$ )	0.413 ( $< 0.01$ )	-0.039 ( $< 0.01$ )	-0.098 ( $< 0.01$ )	0.092 (0.595)	0.007 (0.095)	0.009 ( $< 0.01$ )	0.245	1027

p-values are reported in parentheses. Observations were identified as influential using  $\text{abs}(\text{dffits}) > 2(p/n)^{1/2}$  (Belsey, Kuh, and Welsch, 1980), resulting in the removal of 54 observations. Payin is the amount received from the parent company. Payout is the amount given by the foundation to external charitable causes. FNA is the corporate foundation's net asset value at the end of the period. Other is the sum of investment income, excise taxes, administrative expense and any other nonparent transfers to the foundation. All foundation variables are scaled by Payout-1. MTR is the marginal tax rate. ROA equals net income before payins divided by lagged total assets. Cash equals cash and cash equivalents before payins scaled by total assets.

**TABLE 4**  
**Discretionary Payins in Portfolios Formed by the Sign and Magnitude of Annual EPS Change**

Annual EPS Change	n	Median DPayin	Mean DPayin	% Income Increasing	Test of DPayin = 0 p-value
> 1.93	156	0.045	0.133	48.08%	0.108
.99 to 1.93	156	0.014	0.076	48.72%	0.224
.58 to .98	159	-0.060	0.124	54.09%	0.177
.40 to .57	155	-0.056	0.030	54.84%	0.660
.28 to .39	157	-0.033	0.068	52.87%	0.332
.16 to .27	155	-0.013	0.005	50.97%	0.944
<b>.01 to .15</b>	165	<b>-0.188</b>	<b>-0.257</b>	<b>61.82%</b>	<b>&lt; 0.01</b>
-.29 to -.01	159	-0.096	-0.080	59.12%	0.132
-.83 to -.30	153	-0.067	-0.116	52.29%	0.010
-1.97 to -.84	156	0.026	0.075	46.80%	0.360
< -1.97	156	-0.055	-0.047	52.56%	0.401
p-value		0.111	0.015	0.310	

DPayin is the residual from estimating the model in Table 3. Portfolios are formed with an approximately equal number of observations relative to zero change in annual EPS. The last column reports the p-values from a two-sided t-test of whether the DPayin for each portfolio equals zero. The p-values reported at the bottom of the DPayin columns are one-sided tests of H1.

**TABLE 5**  
**Robustness Tests of Discretionary Payins to Slightly Beat Target**

*Panel A: Tobit Estimation of Foundation Payins (1,727 observations)*

	Coefficient	p-value	Coefficient	p-value
Payout <sub>t</sub>	0.210	<.01	0.204	<.01
Payout <sub>t+1</sub>	0.701	<.01	0.706	<.01
FNA <sub>t-1</sub>	-0.057	<.01	-0.057	<.01
Other <sub>t</sub>	-0.107	<.01	-0.103	<.01
MTR <sub>t</sub>	0.378	0.044	0.387	0.038
ROA <sub>t</sub>	0.012	<.01	0.014	<.01
Cash <sub>t</sub>	0.013	<.01	0.012	<.01
Above			-0.424	<.01
Below			-0.184	0.038
			Test: Above < Below	0.022

*Panel B: Portfolios Formed by the Sign and Magnitude of 4th Quarter EPS Change*

4th Quarter EPS Change	n	Median DPayin	Mean DPayin	% Income Increasing	DPayin = 0 p-value
> .76	180	-0.002	-0.014	51.11%	0.824
.32 to .76	177	0.048	0.169	46.33%	0.015
.16 to .32	185	-0.078	-0.036	56.22%	0.489
.10 to .15	190	-0.084	0.057	57.37%	0.492
.06 to .09	169	0.011	0.120	47.93%	0.088
.01 to .05	201	<b>-0.225</b>	<b>-0.200</b>	<b>63.68%</b>	<b>0.000</b>
-.15 to -.01	203	0.018	0.000	49.26%	0.997
-.62 to -.16	202	-0.022	0.022	50.50%	0.753
< -.62	202	-0.043	-0.055	52.48%	0.204
p-value		< 0.01	< 0.01	< 0.01	

*Panel C: Portfolios of Equal Width Formed by Annual Analyst Forecast Error*

Forecast Error	n	Median DPayin	Mean DPayin	% Income Increasing	DPayin = 0 p-value
> .14	173	0.035	0.116	46.2%	0.121
.07 to .14	164	-0.003	0.026	50.0%	0.751
.03 to .06	181	0.032	0.217	47.0%	0.011
.01 to .02	184	<b>-0.186</b>	<b>-0.145</b>	<b>60.9%</b>	<b>0.005</b>
-.04 to -.01	171	-0.074	-0.091	56.7%	0.082
-.14 to -.05	185	-0.038	-0.005	52.4%	0.923
< -.14	177	-0.019	-0.015	51.4%	0.817
p-value		0.031	0.147	0.232	

DPayin is the residual from the model estimated in Table 3. See variable definitions in Table 3. In Panel A, Above = 1 (Below = 1) if the observation falls in the portfolio immediately above (below) zero change in EPS; otherwise Above = 0 (Below = 0). The portfolios used Panel A are the same portfolios listed in Table 4. The restriction Above = Below is tested with a likelihood ratio test (Allison, 1995). In Panels B and C, portfolios are formed with an approximately equal number of observations relative to zero change in fourth quarter EPS and zero annual forecast error, respectively. The last column reports the p-values from a two-sided t-test of whether the DPayin for each portfolio equals zero. The p-values reported at the bottom of the DPayin columns are one-sided tests of H1.

**TABLE 6**  
**Discretionary Payins and Strings of Consecutive Earnings Increases**

*Panel A: DPayins in Portfolios Based on Prior Earnings String*

	Median DPayin	Mean DPayin	% Income Increasing	n
<b>Firms with Small Increases in Earnings</b>				
String $\geq$ 5 Years	-0.464	-0.447	75.61%	41
String < 5 Years	-0.092	-0.195	57.26%	124
p-value	0.011	0.026	0.018	
String $\geq$ 4 Years	-0.464	-0.446	71.9%	57
String < 4 Years	-0.087	-0.158	56.5%	108
p-value	0.011	0.019	0.013	
String $\geq$ 6 Years	-0.537	-0.494	78.79%	33
String < 6 Years	-0.097	-0.198	57.58%	132
p-value	<.01	0.013	0.013	
<b>Firms with Small Decreases in Earnings</b>				
String $\geq$ 5 Years	-0.240	-0.172	64.00%	25
String < 5 Years	-0.083	-0.062	58.21%	134
p-value	0.147	0.178	0.296	

*Panel B: DPayins and String Length for Firms with Small Earnings Increases*

(n = 1,727)	Dependent Variable = Payins					
	Model 1	p-value	Model 2	p-value	Model 3	p-value
Payout <sub>t</sub>	0.159	<.01	0.166	<.01	0.163	<.01
Payout <sub>t+1</sub>	0.658	<.01	0.659	<.01	0.657	<.01
FNA <sub>t-1</sub>	-0.036	<.01	-0.037	<.01	-0.037	<.01
Other <sub>t</sub>	-0.062	<.01	-0.064	<.01	-0.062	<.01
MTR <sub>t</sub>	0.277	0.070	0.284	0.066	0.299	0.052
ROA <sub>t</sub>	0.011	<.01	0.010	<.01	0.010	<.01
Cash <sub>t</sub>	0.010	<.01	0.010	<.01	0.010	<.01
Above	-0.273	<.01			-0.103	0.312
String			-0.004	(0.667)	0.007	0.437
Above*String					<b>-0.056</b>	0.021
Adj. R <sup>2</sup>	0.270		0.264		0.272	

DPayin is the residual from the model estimated in Table 3. See variable definitions in Table 3. In Panel A, observations are included if they fall in the small increase/decrease portfolios as listed in Table 4. String equals the number of consecutive non-negative changes in EPS through year t-1. The p-values reported at the bottom of the DPayin columns are one-sided tests of H2. In Panel B, Above = 1 if the observation falls in the portfolio immediately above zero change in EPS; otherwise Above = 0.

**TABLE 7**  
**Discretionary Payins and Reserve Creation**

*Panel A: Percentage of Firms that Recorded Increases in Earnings in Subsequent Years*

DPayin Rank	Median Dpayin	n	% Firms with 2 Year String	% Firms with 3 Year String	Median EPS Change	Mean EPS Change
<b>All Firms With Income Decreasing DPayins</b>						
Low	0.088	256	35.2%	22.7%	0.17	0.17
Middle	0.302	257	38.5%	22.6%	0.15	-3.56
High	0.936	257	44.0%	29.2%	0.31	0.39
p-value High > Low			0.021	0.041	<.01	<.01
<b>Firms With Income Decreasing DPayins with Reported EPS Increase in Current Year</b>						
Low	0.083	155	38.1%	22.6%	0.48	1.27
Middle	0.310	155	40.6%	23.2%	0.46	1.11
High	0.951	183	47.5%	32.8%	0.52	1.24
p-value High > Low			0.040	0.019	0.37	.
<b>Firms With Income Decreasing DPayins with Reported EPS Decrease in Current Year</b>						
Low	0.098	101	30.7%	22.8%	-0.75	-1.52
Middle	0.290	102	35.3%	21.6%	-1.11	-1.77
High	0.908	74	35.1%	20.3%	-0.91	-1.71

*Panel B: Reserves in Subsequent Years for Firms With Income Decreasing DPayins with Reported EPS Increase in Current Year*

DPayin Rank	3 Year String	n	Mean Reserve <sub>t</sub>	Mean Reserve <sub>t+1</sub>	Mean Reserve <sub>t+2</sub>	Mean Reserve <sub>t+3</sub>
Low	No	48	3.529	3.275	2.769	3.335
Low	Yes	15	2.404	1.348	3.789	3.125
Middle	No	44	3.513	3.369	3.445	3.391
Middle	Yes	17	1.787	2.989	2.159	3.684
High	No	46	7.656	2.821	3.231	3.041
High	Yes	23	<b>5.314</b>	<b>5.228</b>	<b>5.028</b>	<b>4.543</b>

DPayin is the residual from estimating the model in Table 3. Data on earnings through year t+3 must be available to be included in the tests in Panel A & B. Reserve is calculated as foundation assets divided by payouts in the following year (e.g.,  $Reserve_{t+1} = FNA_{t+1}/Payout_{t+2}$ ). Data on reserves through year t+3 must be available to be included in the tests in B.