Corporate Lobbying and Financial Performance

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Abstract
Corporate lobbying activities are designed to influence legislators and thus to further company goals by encouraging favorable policies and/or outcomes. Using data made available by the Lobbying Disclosure Act of 1995, this study examines corporate lobbying activities from a financial perspective. We find that on average, lobbying is positively related to accounting and market measures of financial performance. These results are robust across a number of empirical specifications and continue to hold when we account for potential sample selection. We also report market performance evidence using a portfolio approach. We find that portfolios of firms with the highest lobbying intensities significantly outperform their benchmarks in the three years following portfolio formation.

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1. INTRODUCTION

There is widespread disagreement over the impact of corporate political activity in the United States. One widely held view is that corporate interests unduly influence the regulatory and legislative processes, mainly via their ability to spend large sums of money. Academic studies however, have not yet reached a strong consensus. Early studies, e.g., Snyder (1992), consider whether political contributions affect legislative voting outcomes. Snyder concludes that “despite years of research by political scientists and economists, the extent to which money actually buys political influence on a regular basis remains a mystery.” With hindsight, it is clear that links to voting outcomes can easily become obscured, by e.g., complex omnibus legislation – where many unrelated pieces of legislation get combined, or by the inability to observe behind the scenes maneuvering by politicians themselves. Hence this study takes a different approach and focuses instead on corporate financial performance as the outcome of interest, since it is both tangible and (arguably) less susceptible to obfuscation.

Another possible explanation for the lack of consensus may be that to date, the most intensively studied corporate political involvement category is of corporate affiliated Political Action Committees (PACs).1 Generally speaking, corporate political interests can be communicated in one of two ways: either through lobbying, or through donations to politicians, political parties, or interest groups. Even when the outcome under study is easily measurable, Ansolabehere, de Figueiredo, and Snyder (2003) argue that there need not be a relationship between donations and corporate performance, since most so-called “corporate” contributions are actually made by individuals, and not by corporations themselves.2 Hence, in their view

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1 Some recent examples include Jayachandran (2006), Cooper, Gulen and Ovtchinnikov (2010), Goldman, Rocholl, and So (2010), and Rubenzer (2011).

2 The two primary categories of corporate political donations are Political Action Committee (PAC) donations, and the now-banned ‘Soft money’ donations. Soft money refers to largely unregulated contributions made to a
such donations should be considered personal consumption in advancing a personal political ideology, rather than as a form of corporate political involvement. This point is well taken, since direct corporate political contributions were prohibited by the Tillman Act, and, until the Supreme Court’s January 2010 ruling overturning two of its own precedents, related corporate spending on elections was also restricted. Moreover, the link between donations and outcomes is arguably less direct; donations presumably impact reelection outcomes, whereas lobbying, by definition, is designed for much narrower purposes, e.g., to convey a point of view on a particular piece of legislation on which the corporation has a direct interest. As argued and demonstrated by Hansen, Mitchell, and Drope (2005), lobbying is largely motivated by firms’ need to seek private goods, and is most associated with firm-specific benefits. We therefore expect the benefits of lobbying to be the most pronounced when examining the benefits of corporate political activities.

Given these considerations, this study focuses on the relation between corporate lobbying activities and corporate financial performance. This study builds on recent work in Richter, Samphantharak, and Timmons (2009) who find that firms that spend more on lobbying face lower effective tax rates. Note that lower tax rates are but one (important) potential outcome of lobbying. Firms may also lobby regarding regulatory oversight, and/or to secure government contracts, for example. Importantly, any preferential treatment the firm
receives, should impact the firm’s financial performance. Hence, in this study, we focus on the link between lobbying and corporate financial performance. We provide evidence of a positive association from reported financial statement data (accounting performance), as well as from stock market returns (market performance). We measure corporate lobbying by expenditure totals as disclosed in legally required U.S. Senate filings, and we focus solely on the financial implications of such expenditures. Added motivation for this study is provided by recent research into the financial implications of corporate connections with politicians. These studies conclude that connected firms receive specific benefits from political connections, and importantly, that the value of these connections is priced in financial markets.

We begin our empirical investigation by examining the links between corporate lobbying and corporate performance using financial statement data via panel regression methods. Initially, we apply the approach taken by researchers studying the value of corporate R&D expenditures (e.g., Sougiannis, 1994; Lev and Sougiannis, 1996). We examine three measures of performance released in firms’ financial statements: income before extraordinary items, net income, and operating cash flows. Given the lobbying and financial performance may be persistent, we also report regressions of lagged lobbying on the change in firm performance. The evidence points to a positive relationship between corporate lobbying

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4 Recent news stories citing lobbying financial benefits include The Washington Post (2006) reporting that 60 companies (including Pfizer, Hewlett Packard and Altria) collectively spent approximately $1.6 million dollars lobbying for a special low tax rate worth $100 billion dollars, which would apply to the firms’ earnings from foreign operations. The same article quoted the case of Carmen Group Inc., a lobbying services firm claiming to deliver a 100 to 1 (dollar) benefit-to-cost ratio for its clients. Similarly, Fortune (2006) estimated similarly large rates of return on political investment: 163,536% for Lockheed Martin, which spent $55 million in lobbying since 1999 and won roughly $90 billion in defense contracts; and 142,000% for Boeing, which spent $57 million and got $81 billion in contracts.

5 Recent studies find that political connections lead to better access to finance, and/or lower taxation, government bailouts, higher market returns, more government contracts, and greater market share, e.g., Claessens, Feijen, and Laeven (2008), Faccio (2006), Faccio, Masulis, and McConnell (2006), Leuz and Oberholzer-Gee (2006), and Goldman, Rocholl, and So (2010). In contrast, Fan, Wong, and Zhang (2007) find that politically connected Chinese firms have poorer financial performance. Interestingly, Goldman, Rocholl, and So (2009), conclude that corporate donations are a less reliable predictor of future returns than are politically connected board members. See also Snyder (1990).
expenditures and accounting earnings and cash flows from operation.

In robustness exercises, we make attempt to deal with several potential critiques of the analysis, including self-selection bias, non-linearity in the relationship, and principal agent interpretations, via sub-sample regressions (limiting to large lobbying spenders only, and to firms with weak investor protection only), and by modeling the decision to lobby in a treatment effects framework.

Finally, after these robustness exercises, we turn to an analysis of market-based evidence by comparing excess returns of portfolios of lobbying and non-lobbying firms. We follow the portfolio approach used by Chan, Lakonishok, and Sougiannis (2001) who study the stock market valuation of R&D expenditures. One important benefit of this portfolio-based approach is that it mitigates concerns about reverse causality and endogeneity, since the focus of the analysis is on future (i.e., one-, two-, and three-year ahead) excess market returns. Arguably, forecasts of future market performance at these horizons are highly unreliable, thus making endogeneity bias and reverse causality arguments less credible. We find that lobbying is positively correlated with future excess returns. In particular, firms with the highest lobbying intensities significantly outperform their benchmarks. However, our results also imply that most lobbying expenditures are not associated with abnormal returns, and that simply spending the most on lobbying does not necessarily lead to better financial performance.

The rest of the paper is organized as follows. Section 2 develops our hypotheses in the context of related research. Section 3 describes the data and how we arrive at our final sample. Section 4 discusses the research design and presents the results of the analysis. Section 5 concludes.
2. BACKGROUND

By definition, lobbying activities can include direct, explicit effort in communicating with lawmakers to influence their opinions, as well as grass roots activities aiming to solicit general support for, or to indirectly create a favorable public environment for a desired legislative goal. Direct lobbying of politicians can target different levels of government such as the federal government or the state government. In this paper, we focus on direct lobbying at the federal level, which is defined as “any communication made on behalf of a client to members of Congress, congressional staffers, the President, White House staff and high-level employees of nearly 200 agencies, regarding the formulation, modification, or adoption of legislation.” (The Center for Public Integrity).

As noted in the introduction, it is surprising that empirical research has so far mostly ignored the financial implications of corporate lobbying. Lobbying is the largest form of corporate political involvement in America. In dollar terms, corporate lobbying is roughly twenty times greater than either PAC, or soft-money contributions per election cycle. Moreover, corporations, their trade associations, and other business-related interest groups account for nearly all the money spent on lobbying. Individual firms also spend impressive amounts annually. According to the data reported in Table I, lobbying spending by the top twenty firms was more than $160 million in 2005, with the top five firms accounting for 42% of the total. General Electric alone spent more than $18 million, and Altria Group (which

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6 One exception is of course Richter et al. (2009), as discussed in the introduction, that study the link between corporate lobbying and tax rates. There are also frequent news stories suggesting substantial benefits from corporate lobbying for particular firms, e.g., The Washington Post (2006), and Fortune (2006).

7 The numbers of firms that lobby is also much larger (between two and four times) than those contributing via PACs or soft-moneys (see Table 2).

8 Milyo, Primo and Groseclose (2000) report that these groups accounted for roughly 90% of total lobbying spending in the 1997-98 election cycle.
includes Kraft and Philip Morris) spent nearly $14 million in that year.9

The lack of attention to corporate lobbying is also surprising since lobbying has direct budgetary consequences, unlike political donations or contributions. Given that control over lobbying funds resides with the firm’s managers, decisions concerning lobbying activities are presumably subject to the same cost/benefit calculus as other corporate spending decisions.10 Finally, and perhaps more relevant, is that according to the Center for Responsive Politics, there is very little correlation between campaign contributions and lobbying expenditures by businesses or industries.11 Thus, inferences reached from studies of corporate donations may lack generality.

Despite these arguments, lobbying by corporations, and contributions by affiliated individuals, are similar to other forms of corporate political connections in that the links to financial performance are not always straightforward. Hence, throughout this study we take precautions to insure our results are robust to various alternative interpretations for our findings.

One important example is that lobbying may be based on expected future profitability. However, we note that the effects can go either way. That is, firms expecting financial performance to improve may increase their lobbying efforts (since they expect to have more cash on hand); thus creating a positive link between lobbying and subsequent performance.

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9 For GE and Altria these numbers are relatively small, however in comparison to typical campaign spending, they are significant. For example, the average two-year election cycle spending by winning candidates for U.S. House and Senate seats (in the 2004 election) was $1 million and $7.8 million respectively.

10 A conceptual difference between lobbying and contributions is that contributions have the appearance of buying favor; hence one could argue that an examination of contributions is where one should look for an effect. However, this intuition misses the point that donation monies are not transfers in the traditional sense, i.e., they may only be used for professional (e.g., re-election), but not for personal, uses. Therefore the ‘pay-for-service’ analogy may be misleading.

11 On its web site the Center for Responsive Politics describes itself as a “nonpartisan, independent and nonprofit” organization that compiles data and reports on campaign contributions and lobbying. Their discussion of lobbying versus contributions tradeoffs can be found at: [http://www.opensecrets.org/lobby/lobby00/summary.php](http://www.opensecrets.org/lobby/lobby00/summary.php)
Alternatively, firms may increase spending when expected future profits drop in an effort to mitigate that decline. This concern suggests the importance of controlling for factors that influence future financial performance. In addition, it suggests that managers with more discretion might be more able to engage in such ‘opportunistic’ lobbying. We describe our tests in Section 4.b, and in Appendix Table 2. Here, however, we note that in our data we find little correlation between commonly used corporate governance scores and lobbying. Finally, as noted above, we also take two additional empirical approaches to estimating the effects of lobbying on firm performance. The first approach we take is to present estimates from a treatment-effects model, where the decision to lobby is estimated simultaneously with the effects of lobbying. Our second approach uses a portfolio analysis to compare market returns of lobbying and non-lobbying firms based on the intensity of their lobbying efforts. This approach helps to mitigate concerns that managers’ prior knowledge (of future performance) affects their decision to lobby by examining returns for several years subsequent to portfolio formation.

The theoretical basis for this study relies on research in the political economy of business and regulation such as Stigler (1971). In Stigler’s view the state, through its power to tax, subsidize, and regulate, can selectively help or hurt particular firms or industries. He discusses several specific forms of government influence, including: subsidies and earmarks (by e.g., veterans, airlines, and universities); control over entry or rivals (e.g., commercial airline authority, and, entry into banking); and import tariffs. According to Stigler, lobbying can generate positive returns for firms by any one (or a combination) of several means: securing direct subsidies or lower taxes, government contracts, limiting competition, or permitting entry into previously protected markets. In addition to Stigler (1971), there are other
explanations for the role of lobbying. For example, Grossman and Helpman (1994, 2001) view lobbying as a means for interest groups to communicate with policy-makers and inform them with local knowledge. Gordon and Hafer (2005) propose that lobbying is a costly signal sent by interest groups, and conveys a credible threat to the regulators of the interest groups’ willingness to fight. Both alternative theories still imply the same empirical prediction of a positive association between lobbying and financial performance.

A number of researchers in political science and economics have studied lobbying in various perspectives. Hansen and Mitchell (2000) count the number of corporate representatives (including consultants or corporate council offices) in Washington D.C. in 1988, and compare ‘lobbying activities’ of domestic and foreign firms. De Figueiredo and Tiller (2001) study the number of contacts to the Federal Communications Commission as a proxy for firms’ lobbying effort. Their findings are generally consistent with the prediction of collective-action and transaction cost theories in that large firms tend to lobby more. More recently, de Figueiredo and Silverman (2006) measure the success of lobbying efforts made by universities seeking educational earmarks. They find that a lobbying university with representatives in the Senate Appropriations Committee (SAC) can obtain an average of 11 to 17 dollars on every dollar they spend lobbying, and that a university with representation on the House Appropriations Committee (HAC) can obtain $20-$36 for each lobbying dollar. Finally, Yu and Yu (2011) examine the relation between corporate lobbying expenses and fraud detection. They find firms that lobby can evade fraud detection on average 117 days longer, and are 38% less likely to be detected by regulators than firms that do not. Also, fraudulent firms spend 77% more on lobbying than firms not involved in fraud. However, to our

12 The central theme of the collective action problem (Olson, 1965) is that smaller (poorer) entities will (rationally) free ride on the efforts of larger entities in providing public goods. Thus, to the extent that lobbying generates non-excludable benefits, larger firms will incur a disproportionate share of the costs of lobbying.
knowledge, this is the first study to examine the connection between corporate lobbying, quantified by the dollar amount of lobbying expenses, and corporate financial performance.

A closely related line of research focuses on valuing firms’ political connections. In addition to the studies noted above by Jayachandran (2006) and Cooper, Gulen and Ovtchinnikov (2010), Agrawal and Knoeber (2001) show that firms that need political connections (such as those facing intense competition or contracting with the government) tend to have outside board directors with political backgrounds. Fisman (2001) uses evidence from Indonesia to show political connections are valuable for firms. He demonstrates that the market value of firms connected to the Suharto family changed significantly when news about Suharto’s health was announced. Faccio (2006) examines international firms with controlling shareholders or top managers who have political positions. She finds that politically-connected firms enjoy privileges such as easy access to debt financing and low taxation, as well as high market share. Faccio and Parsley (2009) find an economically meaningful 1.7% decline in firm value (averaged across American and international firms) after the sudden deaths of politicians that resided, or were born, in the same geographic location as the firms’ headquarters. Interestingly, Goldman, Rocholl, and So (2009) find that corporate donations are a less reliable predictor of future returns than are politically connected board members.

3. DATA

We obtain lobbying data from the Center for Responsive Politics (CRP), financial data from COMPUSTAT, and returns and pricing data from CRSP. The Lobbying Disclosure Act of 1995 established the registration and reporting requirements for those who seek to affect U.S. government policies or the implementation of Federal programs. Registrants must file semi-annual reports (within 30 days of the end of the semi-annual period) detailing the issue
they lobby for and the amount spent. The CRP data includes lobbying, PAC contributions, and soft-money as distinct categories. It is compiled using the semi-annual lobbying disclosure reports filed with the Secretary of the Senate’s Office of Public Records and is available by calendar year since 1998.

The CRP sums the mid-year and year-end total amounts of expenses reported by a registrant to arrive at annual figures for each firm. Adjustments are made if there are any subsequent amendment reports correcting the originally reported amount in either the mid-year or year-end filings. Lobbying can be done in-house, and/or via a contractual arrangement with external lobbyists to lobby on a firm’s behalf. These external lobbyists must report for whom they lobby. The CRP uses the amount reported by the organization (including both in-house lobbying and external lobbyist filings) as the total lobbying expenditure for the period. Thus, even if an organization does not file for lobbying itself (e.g., because it has no in-house lobbying), the CRP sums all of the organization’s contracted lobbying expenditures reported by its external lobbyists. Finally, when a parent firm and its subsidiary both file for lobbying, the CRP attributes all lobbying expenses to the parent firm.

The CRP lobbying data include spending by publicly traded firms, privately held firms, trade associations, ideological organizations, and non-profit organizations. We merge the data with COMPUSTAT to extract only public firms. Since CRP does not use company identifiers (e.g., CUSIP, PERMNO, etc.), we manually verified the names of the public firms to ensure the matching between COMPUSTAT and CRP lobbying data.

Table II compares the three categories of corporate political involvement for firms in

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13 Typically, issues are very general, e.g., “Lobby for business and workforce development programs and appropriations”. The CRP provides a considerable service by sifting, matching, and cleaning the raw lobbying disclosure data. To access the Senate lobby reports and registrations database, go to [http://sopr.senate.gov](http://sopr.senate.gov).

COMPUSTAT that lobbied during 1998 to 2005. The relative magnitudes of lobbying, PAC contributions, and soft money donations are reported. Note that both PAC and soft money are reported by election cycle rather than calendar year. As seen in Table II, the percentage of firms in COMPUSTAT involving in lobbying activities increases from 6.54% in 1998 to 11.79% in 2005. Clearly, lobbying accounts for the lion’s share (in both dollar amounts and in the number of firms involved) among all types of corporate political expenditures. If we compare the average firm’s political spending across the three categories (by aggregating lobbying expenses per year into amounts per election cycle to match the reported PAC and soft money) in the 1998 election cycle, for instance, we see that lobbying is around 22 times greater than PAC contributions, and around 20 times greater than soft-money contributions. All three types of spending increase across the sample, though soft money is relatively constant in the final two election cycles of its existence (i.e., 2000 and 2002). Figure 1 presents the total and average annual lobbying spending of sample firms in Panels A and B, respectively. The figure confirms that much of the growth in lobbying expenditures is due to additional firms, since the per-firm average has increased by only around $40,000 since 2000.

In Table III, we look across industry group and year. Firms in manufacturing (two-digit SIC=20-39), transportation and utilities (two-digit SIC=40-49), and finance, insurance and real estate industries (two-digit SIC=60-69) are more active in lobbying activities than are other firms, evident by the average lobbying spending. The public administration industry (two-digit SIC=90-99) has the highest average lobby spending among all the industry groups, however,

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15 If we restrict the sample to only those firms engaged in all three forms of political involvement, the number of firms falls below 200 (or roughly one-third of the full sample), and the resulting sample spends on average nearly three times more on lobbying than in the full sample. In our regression analysis we do not restrict the sample to just these firms.

16 Total lobbying spending of our sample firms in the 1998 election cycle is $789,391,490 (=704*$554,628+765*521,482) and the amount of PAC contributions is $36,385,753 (=430*$84,618).
there are relatively few firms in public administration involved in lobbying in most years, and most of these firms are conglomerates. These differences suggest to us the importance of controlling for industry effects in our analysis.

To ensure that the lobbying data and financial data correspond to the same time period, we focus our analysis on firms with fiscal year ending December 31. Our sample of lobbying firms is reduced from 6,678 to 4,668 firm-year observations due to the elimination of firms with non-calendar fiscal year end.

Panels A and B of Table IV report descriptive statistics for the various measures of accounting performance, lobbying, and other independent variables used in our analysis. Panel A focuses on firms that lobby, and Panel B reports data for all firms in COMPUSTAT. The most obvious conclusion from comparing Panel A with Panel B is that firms with non-zero lobbying spending are, on average, substantially larger.

4. ANALYSES AND RESULTS

4.a. Lobbying activities and financial performance

In this section we check whether, on average, lobbying and financial performance are positively related. In these regressions we relate financial performance to lobbying after controlling for additional firm characteristics standard in this literature, including market-to-book ratios, lagged financial performance, and firm size (assets). All our regressions include Fama-French (Fama and French 1997) industry-dummies, time-dummies, and we report z-statistics for coefficient estimates computed using heteroscedasticity consistent standard errors that are clustered at the firm level.\(^{17}\)

To guide our empirical specifications, we draw from studies investigating the impact of

\(^{17}\) See Moulton (1986) on the consequences of ignoring intragroup error correlation.
R&D expenditures on financial performance. Conceptually, lobbying is similar to R&D in that each is undertaken voluntarily by (not all) individual firms, and yields uncertain future payoffs. Although these charges are fully expensed in the financial statements in the period in which they incur, the implications for performance may only be in subsequent years. In Table V we examine three standard measures of firm performance taken from firms’ financial statements, and we present two econometric specifications for each measure. Our three econometric specifications parallel those developed in Sougiannis (1994), Amir and Lev (1996), and Lev and Sougiannis (1996). Hence, Table V presents a total of six regressions (two econometric specifications for each measure of financial performance).

Specifically, in columns (1) - (2), we use income before extraordinary items (IBEI) as the measure of financial performance. We choose income before extraordinary items instead of other earnings measures, such as income before interest, income tax, and depreciation and amortization, because lobbying activities may affect lobbying firms’ effective tax rates and interest rates. In columns (3) - (4), we repeat the analysis using net income (NI), and in columns (5) - (6), we use cash from operations (CFO) as alternative financial performance measures. Using IBEI as an example, the general form of the specifications we study is:  

$$IBEI_{i,t} = \alpha_0 + \beta_1 \text{LOBBY}_{i,t-1} + \alpha_2 \text{MB}_{i,t} + \alpha_3 \text{ASSET}_{i,t} + \sum_{k=1}^{2} \lambda_k IBEI_{i,t-k} + \sum_{t=1998}^{2004} \delta_t \text{Year}_t + \sum_{j=1}^{48} \gamma_j \text{Industry}_j + \epsilon_{i,t}, \tag{1a}$$

$$\Delta IBEI_{i,t} = \alpha_0 + \beta_1 \text{LOBBY}_{i,t-1} + \alpha_2 \text{MB}_{i,t} + \alpha_3 \text{ASSET}_{i,t} + \sum_{k=1}^{2} \lambda_k \Delta IBEI_{i,t-k}\tag{1b}$$

$^{18}$ Specifications including firm fixed effects and, scaling LOBBY by assets or sales produce qualitatively similar results. Similarly, scaling both LOBBY and the dependent variables by assets or by sales produces qualitatively similar results.
where “Δ” indicates the change from year $t-1$ to year $t$. $LOBBY_{i,t}$ is the dollar amount of lobbying spending by firm $i$, in year $t$. Firms that do not lobby are assigned a zero for the value of their lobbying expenses. $ASSET_{i,t}$ is the amount of total assets of firm $i$ at the beginning of year $t$; and $Year$ and $Industry$ are year and Fama-French industry dummies. Two lags of the dependent variable are included in each specification to mitigate potential problems from serial correlation. Using three lags of the dependent variable produces similar results, though with a smaller sample size. To control for firm specific drivers of financial performance (and to mitigate problems due to residual autocorrelation), we include the firm’s market-to-book ratio ($MB$), size ($ASSET$), and the previous two year’s financial performance (e.g., $\Delta IBEI_{i,t-1}$), time ($Year$), as well as industry ($Industry$) fixed effects.

To summarize, our empirical strategy in Table V is to check whether lobbying and financial performance are statistically significantly related. We present three econometric specifications for robustness. Equation (1a) relates current lobbying to future performance. Equation (1b) checks whether lobbying is related to the change in financial performance.

We report the results of estimating these equations using all firms in COMPUSTAT. To mitigate the impact of outliers, we have repeated these regressions excluding observations in the top and bottom 1 percent of the dependent variable. Focusing on $IBEI$, according to columns (1) and (2), lobbying is positively related to financial performance and the change in financial performance. The $R^2$ statistic is much higher for column (1), which relates the flow of lobbying resources to the income flow, as opposed to changes in these flows in column (2). The coefficients on the lags of the dependent variable are generally statistically significant in equation implying persistence in these reported accounting measures of financial performance.
The coefficient on the level of assets (\textit{ASSET}), is statistically significant in all three specifications suggesting that size effects are important; however, the market to book ratio (\textit{MB}) is never statistically significant.

The results from estimating equations (1a) - (1b) for net income (NI), and cash from operations (\textit{CFO}), are presented in columns (3) – (4), and (5) – (6), respectively and generally mirror the results using \textit{IBEI} as the measure of financial performance.

\textit{4.b. Additional Robustness Exercises}

One drawback to the analysis so far is that it makes no distinction between firms lobbying for defensive reasons and firms that lobby for preemptive reasons. For example, some corporate lobbying may be undertaken to express opposition to potentially damaging legislation or regulation (defensive), rather than to advocate for specific favorable policies (preemptive), e.g., securing direct government contracts, or advocating tariffs on competitors’ products, etc. Empirically, a successful defensive outcome may simply be limiting the costs of unfavorable policies.\footnote{For our sample, we searched the Nexis© electronic data base for news stories involving the firms most actively lobbying in our sample (spending relative to assets), and found stories of both types of lobbying. Examples of preemptive lobbying include: lobbying to secure and keep government contracts (e.g., Alliant Techsystems, Armor Holdings, Cray); for stricter software piracy laws (Autodesk); for greater Medicare reimbursement (Celgene); and, for direct items in appropriations bills (Shaw Group). Defensive lobbying examples include: successful lobbying to limit state laws with greater consumer protection (Cephalon); and, lobbying to defeat a proposed effort to increase the Federal government’s ability to negotiate prices for Medicare (Cephalon).}

Mixing defensive and preemptive lobbying in a single regression would lessen the average correlation between lobbying and financial performance. Though we do not know the specific motivations behind the observed lobbying expenditures, there may be threshold effects, whereby the relationship changes when lobbying expenditures become very large.

To check for this sort of nonlinearity, we repeat these regressions focusing on the
highest quartile of lobbying firms. The question is whether the positive association is being driven only by the firms that spend the most on lobbying. These results (Appendix Table 1) are virtually identical to those presented in Table V. Hence, the positive association between lobbying and firm performance does not seem any more or less prevalent for the firms with the largest lobbying expenses.

There are several additional concerns that should be addressed before going further. These concerns make the interpretation of the positive regression coefficients difficult, in that the coefficient on lobbying may be proxying for something else. We discuss each of these in turn.

First, lobbying could be correlated with an unobserved variable, e.g., government connections, which may be the real source of value to the firm. Should this be the case, the firm would lobby for issues or legislation the connected politician supports, in return for political favors. As a result, both the firm and the government official benefit from the lobbying activity, but the government connection is the true underlying cause. Unfortunately, we have no way to address this identification issue, since to do so we would need – at the least – to be able to identify a substantial subset of all firm/politician connections, which is beyond the scope of the present paper. However, since we cannot rule out additional political connections, the possibility remains that lobbying is picking up some unobserved source for the observed positive effect.

A second concern is that there could be an agency problem whereby managers having relatively high discretion tend to lobby most.\textsuperscript{20} The agency problem is another way reverse

\textsuperscript{20} For example, Ansolabehere et al. (2003) suggest managers could engage firms in political activities for their own personal political or ideological agenda.
causation can complicate the interpretation of our results in Table V; in particular, the reported relationship might be masking the underlying relationship between managerial discretion and expected future firm performance. Specifically, managers with relatively high discretion over the decision to lobby may increase lobbying spending whenever they expect firm performance to be good. This alternative hypothesis implies that lobbying does not add value to the firm. Hence, we should observe a weaker relationship between lobbying and firm performance, or even a reversal in the estimated coefficient, for firms with weaker corporate governance characteristics.

To investigate this possibility we examine two widely used measures of corporate governance. The first measure, used by Gompers, Ishii, and Metrick (2003), attempts to measure shareholder rights across a large cross-section of U.S. firms. The second measure, produced by Bebchuk, Cohen, and Ferrel (2009), is designed to measure manager entrenchment comparatively over a similarly broad set of U.S. corporations. Bebchuk et al. (2009) propose their “E-index” measure as an improvement over that proposed by Gompers, Ishii, and Metrick. Both measures use underlying data from the Investor Responsibility Research Center. As a start, we first checked the simple correlation of lobbying expenditures with these two measures. Empirically, the correlation coefficient is below 0.20 for our sample of firms and years. Hence, a priori, there seems little to suggest that our results depend on corporate governance characteristics. However, we still test the agency hypothesis directly by comparing the relations between lobbying and financial performance in the context of our regression framework.

Appendix Table 2 presents the results using the E-index measure developed in Bebchuk,
Cohen, and Ferrel (2009). As in the case of firms with the largest lobbying expenditures, we repeat our regression analysis by focusing on firms with the weakest investor protection, i.e., those with an E-index in the top quartile. As can be seen from the table, the results are generally consistent across all nine specifications, though the coefficients on lobbying in the regressions focusing on cash from operations lose statistical significance. All other coefficients are of similar magnitudes and significance levels. Thus the results do not support the hypothesis that lobbying is undertaken by firms with weak investor protection as a means for managers to ‘consume.’

A third concern is the possibility of self-selection. In particular, if firms self-select into lobbying, the estimates presented in Table V do not necessarily estimate lobbying effectiveness for the population (i.e., for a random sample of firms). That is, what the results do not tell us is whether lobbying induces better financial performance or whether firms lobby based on a belief that such efforts would be productive. To the extent that there is a distinction between firms that know, or have reason to believe, that lobbying spending is likely to have a positive impact, and firms that know or believe lobbying will be unproductive, then the results in Table V lack generality. As a result, our variable of interest (lobbying spending) is correlated with the error term, causing OLS estimates to be biased. We note that our specifications in Table V partially address this in two ways; first by examining lagged effects of lobbying (i.e., the ‘future’ in this case refers to at least two years hence), and second, by examining both levels and changes in firm performance. In both of these cases, the potential for self-selection is mitigated since it requires knowledge of future performance, which presumably is less than certain.

21 Their data is available at: [http://www.law.harvard.edu/faculty/bebchuk/data.shtml](http://www.law.harvard.edu/faculty/bebchuk/data.shtml)
We also try another approach and model this self-selection via a treatment effects model consisting of two equations. In the first regression, the probability of ‘treatment’ (lobbying) is estimated using a probit specification. That is, in equation (2a), the probability of lobbying, \( PR(LOBBY) \), is given as a function of the other independent variables in the firm performance regressions (e.g., \( ASSET \), lagged dependent variables, industry and time dummies) as well as industry level variables: \( Import\ Share_j \), the share of imports in industry \( j \) (as of 1994); \( Import\ Growth_j \), the growth in imports over the longest interval for which we have available data (1958-1994); and, \( #Lobbying_{j,t-1} \), the number of firms in industry \( j \) lobbying in year \( t-1 \). The variables \( Import\ Share \), \( Import\ Growth \), and \( #Lobbying \), are included as possible predictors of lobbying by firm \( i \), but outside firm \( i \)’s direct influence. We measure imports and import growth in industry \( j \) prior to our sample period (1998-2005) in order to make the identifying restriction more credible. The number of firms lobbying in industry \( j \) is also measured one year prior to date \( t \) in the regressions. For robustness, we have also modeled the probability of lobbying as a function of each of these three variables separately, and we have also included (not reported) a measure of industry concentration, calculated as the sum of the squares of the market shares of every firm in the industry. Our results are similar across all of these permutations.

The second equation in the treatment effects model includes the estimated probability (from the probit estimation) as another independent variable; thus the treatment is modeled as an omitted relevant variable in the original specification. The two equations are estimated

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22 Imports by sector are described in Robert Feenstra (1996), and the data are available at: http://www.internationaldata.org/usixd/usixd4sic.html. Import growth is the share of imports in SIC 4-digit sector \( i \) in 1994 (the last year available in Feenstra), relative to that in 1958, or the earliest year available. Import share is the share of imports in each SIC 4-digit sector relative to total industry shipments in 1994. A complete description of the data is at http://www.internationaldata.org/notes/sicdescription.html.

23 For example, if there were only one firm in the industry, that firm would have 100% market share and the Herfindahl index would be equal to 10,000, the maximum possible value of the Herfindahl index. Reports using the Herfindahl index are available from the authors.
simultaneously by maximum likelihood, and (using \( IBEI \) as the measure of financial performance) are described by equations (2a) and (2b).

\[
PR(LOBBY_{i,t-1}) = \beta_0 + \alpha_2 MB_{i,t} + \alpha_3 Import Share_j + \alpha_4 Import Growth_j + \alpha_5 \sum_{k=1}^{2} \lambda_k IBEI_{i,t-k} + \sum_{t=1998}^{2004} \delta_t Year_t + \sum_{j=1}^{48} \gamma_j Industry_j + \alpha_4 PR(LOBBY_{i,t-1}) + \epsilon_{i,t}, \tag{2a}
\]

\[
IBEI_{i,t} = \alpha_0 + \beta_1 LOBBY_{i,t-1} + \alpha_2 MB_{i,t} + \alpha_3 ASSET_{i,t} + \sum_{k=1}^{2} \lambda_k IBEI_{i,t-k} + \sum_{t=1998}^{2004} \delta_t Year_t + \sum_{j=1}^{48} \gamma_j Industry_j + \alpha_4 PR(LOBBY_{i,t-1}) + \epsilon_{i,t}, \tag{2b}
\]

For brevity, Table VI reports treatment effects estimates for the benchmark specifications (i.e., equations 1a, and 1b), for each of the three measures of firm performance. For each specification, the column containing results from the probit regression is labeled “Treatment”, and the treatment effect is included as the additional independent variable “lobby treatment” for each of the three measures of firm performance. The lobbying treatment effect is positive and statistically significant for both specifications examining \( IBEI \) and \( NI \), which suggests that the impact of lobbying is positive, but biased upward in Table V. This is confirmed in the coefficients on lagged lobbying in Table VI, which are roughly sixty percent of the size of those presented in Table V. Importantly however, they remain statistically significant in Table VI – though the significance levels decline in all cases. Again, these results become weaker in the specifications measuring firm performance using cash from operations (\( CFO \)) in columns (5) – (6).

Interestingly, the test for independence of the treatment equation and the outcome
equation (e.g., equation (2) and (1)) is significant only for the regressions using Net Income (NI), and for equations (9) and (10) for CFO. Rejecting the null hypothesis of independence provides statistical evidence of sample selection. Hence, we find statistically significant evidence of sample selection in only half (three out of six) of the specifications in Table VI. Thus the evidence for sample selection in the data is mixed.

We are now in a position to comment on the point estimates of the effects of lobbying on financial performance. It is perhaps surprising that the apparent gains have not been bid to zero via additional lobbying. However, from a theoretical perspective, Wirl (1994) concludes, based on a dynamic model of lobbying that in equilibrium, there will be an apparent under investment in lobbying, due to potential retaliation. For example, an implicit threat by a dominant firm to raise lobbying expenditures to very high levels would discourage other firms from engaging in lobbying. Gordon and Hafer (2005) demonstrate that lobbying can be used a credible threat by interest groups to regulators, showing that they are willing to fight against any potential unfavorable policy. This signal effect of lobbying also can explain why there are more firms engaged in lobbying. Thus our results are consistent with the theoretical prediction of Wirl’s (1994) and Gordon and Hafer (2005). Additionally, this average effect may not apply equally to all firms out of sample - given the time, industry, and issue specific nature of lobbying. Finally, we note that these estimates ($24 - $44) are in the same ballpark as those reported by de Figueiredo and Silverman (2006) in the context of universities lobbying to obtain earmark grants from Congressional appropriations committees ($11 - $36).

To summarize, our results in Table VI are consistent with those presented in Table V, and point to a significant and positive association between lobby spending and future financial performance as measured by accounting data reported in firms’ financial reports. In the next
section we turn to market based evidence. That is, we ask whether this positive association is present in market-adjusted returns by comparing portfolios of lobbying and non-lobbying firms. This approach also lets us examine the cross-section of firms with non-zero lobbying expenses further by explicitly comparing them with portfolios of matched non-lobbying firms.

4.c. Portfolio based evidence

To further examine whether lobbying activity is associated with future stock returns and whether the stock market correctly anticipates the expected future benefits of lobbying spending, we follow Chan et al. (2001) and implement an investment strategy. Specifically, this test checks whether lobbying is related to future stock returns and whether firms engaging in lobbying activities financially outperform those do not. For these tests we follow Chan et al., and construct two measures of lobbying intensity: (a) lobbying expenditures relative to assets, and (b) lobbying expenditures relative to market value.

We include all common stocks listed on the NYSE and Amex, as well as those listed on Nasdaq in our sample. Portfolios are formed at the end of March each year, allowing three-month’s time between the end of a firm’s fiscal year and the public disclosure of its lobbying activities for the market to react to the information. Stocks of firms that lobby are assigned to one of five portfolios based on their ranked lobbying intensity. We keep stocks of non-lobbying firms in a separate category for comparison.

We then calculate each portfolio’s average annual buy-and-hold return over each year from one to three years after portfolio formation. We also calculate each portfolio’s average

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24 The mandatory corporate filings are disclosed on the Senate website, generally within two months of filing, see http://www.senate.gov/legislative/Public_Disclosure/database_download.htm
annual buy-and-hold return in excess of the equally weighted return on a control portfolio of stocks matched by firm size and book-to-market in the first through third post-formation years. There are six ranks by size and five ranks by book-to-market ratio resulting in 30 control portfolios. The ranking by book-to-market is based on quintile breakpoints over all stocks, and the size rankings are based on six quantiles of market capitalization. Each stock's return is measured net of the buy and-hold return on its control portfolio.

Table VII reports the returns and characteristics of portfolios classified by lobbying expenditure relative to assets. As shown in Panel C of Table VII, both book-to-market and sales-to-market ratios of the firms that lobby are lower than non-lobbying firms. This could indicate that firms that lobby have relatively high intangible assets that do not appear on their balance sheets, or that such firms are star performers. The earnings-to-price ratio, dividend yield and return on equity of lobbying and non-lobbying groups are not significantly different from each other. Also, note that firms that lobby tend to be much bigger than non-lobbying firms, consistent with Olson (1965).

Panel A of Table VII reports the raw returns before and after portfolio formation and Panel B reports excess returns are calculated after controlling for firm characteristics such as size and book-to-market ratio. It appears that only firms in the highest lobbying intensity quintile (group 5) consistently outperform non-lobbying firms once we focus on excess returns. The excess returns for the highest lobbying intensity portfolio appear substantial. For instance, the average annual return over three-year period after portfolio formation for the highest ranked portfolio is 5.5 percent per year, with the highest return in the first year following portfolio formation. The difference in the mean excess returns between the highest ranked

25 For robustness checks, we also construct value-weighted returns on the control portfolio and the results remain little changed.
lobbying intensity quintile and non-lobbying group is statistically significant at the 1% level (two-tailed t test = 3.44).

These results suggest that the stock market does not initially fully incorporate the value of corporate lobbying activities. If the stock price fully captures the value of a firm’s lobbying activities, we would not find an association between lobbying intensity and future stock returns. The results also lessen the plausibility of causality running from performance to lobbying given that reverse causality would imply that managers accurately forecast profitability (excess market returns) three years into the future.

Table VIII repeats this analysis for portfolios sorted by lobbying expenditures relative to market value of equity. Results here are similar, though with some nuances; particularly for those firms with the highest lobbying intensity. Over the three years prior to portfolio formation, the average raw annual return of stocks ranked in the top quintile by lobbying relative to market is the lowest (13.91 percent, panel A) across the other four lobbying portfolios. In comparison, stocks of firms that do no lobbying have an average return over the same period of 22.54 percent per year. The earnings of stocks in quintile 5 are also the lowest in the table (Panel C). However, the stocks in the top quintile portfolio perform well in the years following portfolio formation. These firms earn a 35.90 percent average raw return in the first subsequent year, compared to 29.70 percent for stocks with no lobbying, and the difference is more noticeable when comparing excess returns. This indicates possible underpricing of actively lobbying firms. In other words, the market may fail to give enough credit to past losers that are investing heavily in corporate lobbying. The average annual excess rate of return over the three years following portfolio formation is 6.74 percent for the

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26 We also examined the stock returns for portfolios sorted by lobbying expenditures relative to sales. Overall, the results support our findings in Tables 8 and 9 and again reveal an association between lobbying intensity and future stock returns.
top lobbying quintile, while the non-lobbying firms earn essentially zero average excess returns. The difference in the mean excess returns between the two extreme groups is statistically significant at the 1% level (two-tailed t test = 4.04). This rebound effect is something also noted by Chan et al. (2001) for high R&D firms.

We investigate this rebound effect further in Table IX, using a two-way sort (first by lobbying intensity, then by past returns) to capture the influence of both past returns and lobbying intensity (measured relative to assets). Specifically, we examine whether past losers who spend heavily on lobbying tend to be undervalued. Within each of the portfolios sorted by lobbying intensity, we assign a stock to one of two equally sized groups, based on its rate of return over the three years prior to portfolio formation. Each stock's return is measured net of the return on a control portfolio matched on size, book-to-market, as well as its past three-year return. The table reports equally weighted excess returns on each portfolio. Within each quintile by lobbying expenditures relative to assets except for group 4, past losers experience higher excess return in the first year post portfolio formation than past winners. However, the results become weaker in the three-year post portfolio formation period where only past losers in groups 2 and 3 outperform past winners. Overall, the results provide evidence of market mispricing of lobbying activities.

5. CONCLUSIONS

There is growing interest in the political activities of corporations. To date, the overwhelming focus of the financial press and research among academics is on corporate political contributions. Contributions however, account for only a small part of corporate political activities – which are not corporate expenses at all since they are, in fact, made by individuals. We document that lobbying expenses are by far the largest form of corporate
political activity in the United States. Measured by number of firms engaged, or by dollar amounts spent, lobbying activities far outweigh corporate PAC or the (now banned) corporate soft-money donations. Moreover, this paper uses lobbying data that became publicly available after the passing of the Lobbying Disclosure Act of 1995 to examine the financial implications of this dominant category of corporate political activity.

We present several findings on the relation between corporate financial performance and lobbying. First, based on a pooled regression including all firms (i.e., those with zero and those with positive lobbying spending) we find evidence that lobbying expenditures are on average positively correlated with financial performance. We report several robustness and sensitivity analyses, including various measures of financial performance and alternative empirical specifications. Our results appear robust to several different empirical specifications, and several measures of financial performance. We also report results from estimating an explicit model of sample selection. Results from this exercise are consistently positive and continue to support the conclusion that lobbying expenditures are statistically significantly positively correlated with financial performance.

Some of the more interesting findings appear when we take a portfolio approach. Here, we compare returns of firms that lobby based on their lobbying intensity, to the returns generated by portfolios of non-lobbying firms. We find that portfolios of firms with the highest lobbying intensities outperform their benchmarks of non-lobbying firms. We also show that increases in lobbying tend to follow poor performance, but what we observe is not simply a mean reversion in returns. Firms with the highest lobbying intensity outperform other firms with similar mean reversion in returns.

Many articles in the financial press suggest that the returns to lobbying are large. Our
portfolio results suggest an answer to the natural follow-up question to such news stories, i.e., what keeps even more firms from engaging in lobbying activities? Our analysis of firm-level lobbying data suggests that, in fact, most firms do not enjoy superior financial performance as a result of lobbying. Specifically, we find that only firms that have been willing to commit to the highest lobbying intensities have outperformed their peers. Firms in this category earned an excess return of 5.5% over the three years following portfolio formation, while the rest of the firms earned essentially a zero excess return. Clearly, not all firms can be in the top-intensity group. Additionally, the relative opacity of lobbying disclosures may have historically obscured its benefits, which suggests that going forward we should expect apparent rents to be dissipated via either greater lobbying spending among all participants, or by new entrants. Finally, our portfolio results are consistent with defensive lobbying, i.e., lobbying designed to limit negative outcomes, by a substantial fraction of our sample firms since the majority of firms appear to earn low or even negative returns to their lobbying activity.
REFERENCES


Figure 1: Total and Average Annual Lobbying Spending in the period of 1998-2005

Figure 1a: Annual Lobbying Spending
(sample of firms with financial data)

Figure 1b: Average Annual Lobbying Spending
(sample of firms with financial data)
<table>
<thead>
<tr>
<th>Rank</th>
<th>Company Name</th>
<th>Industry</th>
<th>Assets</th>
<th>Sales</th>
<th>IBEI</th>
<th>Lobbying Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Electric</td>
<td>Conglomerates</td>
<td>673,342</td>
<td>148,019</td>
<td>18,275</td>
<td>18.77</td>
</tr>
<tr>
<td>2</td>
<td>Altria Group</td>
<td>Cigarettes</td>
<td>107,949</td>
<td>68,920</td>
<td>10,668</td>
<td>13.64</td>
</tr>
<tr>
<td>3</td>
<td>Northrop Grumman</td>
<td>Search, detection, navigation, guidance, aeronautical systems</td>
<td>34214</td>
<td>30721</td>
<td>1383</td>
<td>13.60</td>
</tr>
<tr>
<td>4</td>
<td>Southern Co</td>
<td>Electric services</td>
<td>39,877</td>
<td>13,554</td>
<td>1,621</td>
<td>12.96</td>
</tr>
<tr>
<td>5</td>
<td>Boeing Co</td>
<td>Aircraft</td>
<td>60,058</td>
<td>54,845</td>
<td>2,562</td>
<td>9.24</td>
</tr>
<tr>
<td>6</td>
<td>AIG</td>
<td>Life insurance</td>
<td>853,370</td>
<td>108,340</td>
<td>10,477</td>
<td>8.50</td>
</tr>
<tr>
<td>7</td>
<td>General Motors</td>
<td>Motor vehicles &amp; car bodies</td>
<td>476,078</td>
<td>190,215</td>
<td>-10,458</td>
<td>7.76</td>
</tr>
<tr>
<td>8</td>
<td>Motorola Inc</td>
<td>Radio, TV broadcast, communication equipment</td>
<td>35,649</td>
<td>36,843</td>
<td>4,599</td>
<td>7.59</td>
</tr>
<tr>
<td>9</td>
<td>Lockheed Martin</td>
<td>Guided missiles &amp; space vehicles &amp; parts</td>
<td>27,744</td>
<td>37,213</td>
<td>1,825</td>
<td>7.34</td>
</tr>
<tr>
<td>10</td>
<td>Exxon Mobil</td>
<td>Petroleum refining</td>
<td>208,335</td>
<td>328,213</td>
<td>36,130</td>
<td>7.02</td>
</tr>
<tr>
<td>11</td>
<td>Verizon Communications</td>
<td>Telephone communications except radiotelephone</td>
<td>168,130</td>
<td>75,112</td>
<td>7,397</td>
<td>6.76</td>
</tr>
<tr>
<td>12</td>
<td>Pfizer Inc</td>
<td>Pharmaceutical Preparations</td>
<td>117,565</td>
<td>51,298</td>
<td>8,094</td>
<td>6.49</td>
</tr>
<tr>
<td>13</td>
<td>Amgen Inc</td>
<td>Biological products except diagnostic substances</td>
<td>29,297</td>
<td>12,430</td>
<td>3,674</td>
<td>5.72</td>
</tr>
<tr>
<td>14</td>
<td>Johnson &amp; Johnson</td>
<td>Pharmaceutical Preparations</td>
<td>58,138</td>
<td>50,514</td>
<td>10,411</td>
<td>5.38</td>
</tr>
<tr>
<td>15</td>
<td>DaimlerChrysler</td>
<td>Motor vehicles &amp; car bodies</td>
<td>238,773</td>
<td>177,365</td>
<td>3,376</td>
<td>5.34</td>
</tr>
<tr>
<td>16</td>
<td>ConocoPhillips</td>
<td>Petroleum refining</td>
<td>106,999</td>
<td>162,405</td>
<td>13,640</td>
<td>5.10</td>
</tr>
<tr>
<td>17</td>
<td>Bristol-Myers Squibb</td>
<td>Pharmaceutical</td>
<td>28,138</td>
<td>19,207</td>
<td>2,992</td>
<td>5.04</td>
</tr>
<tr>
<td>18</td>
<td>GlaxoSmithKline</td>
<td>Pharmaceutical</td>
<td>46,748</td>
<td>37,855</td>
<td>8,059</td>
<td>4.86</td>
</tr>
<tr>
<td>19</td>
<td>SBC Communications</td>
<td>Telephone communications except radiotelephone</td>
<td>145,632</td>
<td>43,862</td>
<td>4,786</td>
<td>4.84</td>
</tr>
<tr>
<td>20</td>
<td>Ford Motor Co</td>
<td>Motor vehicles &amp; car bodies</td>
<td>269,476</td>
<td>177,089</td>
<td>2,228</td>
<td>4.80</td>
</tr>
</tbody>
</table>
## Table II: Three Categories of Corporate Political Involvement

### Panel A: Lobbying Activities (Annual amounts)

<table>
<thead>
<tr>
<th>Year</th>
<th># of firms</th>
<th>Mean ($)</th>
<th>Std Dev (million $)</th>
<th>Min ($)</th>
<th>Max (million $)</th>
<th># of firms in Compustat</th>
<th>% of firms in Compustat that lobby</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>704</td>
<td>554,628</td>
<td>1.40</td>
<td>10,000</td>
<td>23</td>
<td>10765</td>
<td>6.54%</td>
</tr>
<tr>
<td>1999</td>
<td>765</td>
<td>521,482</td>
<td>1.23</td>
<td>10,000</td>
<td>14.7</td>
<td>10795</td>
<td>7.09%</td>
</tr>
<tr>
<td>2000</td>
<td>759</td>
<td>540,833</td>
<td>1.25</td>
<td>10,000</td>
<td>16</td>
<td>10347</td>
<td>7.34%</td>
</tr>
<tr>
<td>2001</td>
<td>796</td>
<td>539,003</td>
<td>1.24</td>
<td>10,000</td>
<td>15.4</td>
<td>9745</td>
<td>8.17%</td>
</tr>
<tr>
<td>2002</td>
<td>823</td>
<td>547,894</td>
<td>1.23</td>
<td>10,000</td>
<td>14</td>
<td>9292</td>
<td>8.86%</td>
</tr>
<tr>
<td>2003</td>
<td>925</td>
<td>549,761</td>
<td>1.28</td>
<td>10,000</td>
<td>17</td>
<td>9024</td>
<td>10.25%</td>
</tr>
<tr>
<td>2004</td>
<td>943</td>
<td>576,744</td>
<td>1.35</td>
<td>10,000</td>
<td>17.2</td>
<td>8716</td>
<td>10.82%</td>
</tr>
<tr>
<td>2005</td>
<td>963</td>
<td>581,447</td>
<td>1.41</td>
<td>10,000</td>
<td>18.8</td>
<td>8167</td>
<td>11.79%</td>
</tr>
</tbody>
</table>

### Panel B: PAC Contributions (Election Cycle amounts)

<table>
<thead>
<tr>
<th>Year</th>
<th># of firms</th>
<th>Mean ($)</th>
<th>Std Dev (million $)</th>
<th>Min ($)</th>
<th>Max (million $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>430</td>
<td>84,618</td>
<td>0.14</td>
<td>350</td>
<td>1.5</td>
</tr>
<tr>
<td>2000</td>
<td>487</td>
<td>94,036</td>
<td>0.16</td>
<td>125</td>
<td>1.8</td>
</tr>
<tr>
<td>2002</td>
<td>509</td>
<td>106,190</td>
<td>0.18</td>
<td>200</td>
<td>1.6</td>
</tr>
<tr>
<td>2004</td>
<td>527</td>
<td>127,146</td>
<td>0.22</td>
<td>150</td>
<td>2.1</td>
</tr>
</tbody>
</table>

### Panel C: Soft-Money Contributions (Election Cycle amounts)

<table>
<thead>
<tr>
<th>Year</th>
<th># of firms</th>
<th>Mean ($)</th>
<th>Std Dev (million $)</th>
<th>Min ($)</th>
<th>Max (million $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>324</td>
<td>116,607</td>
<td>0.21</td>
<td>250</td>
<td>2.4</td>
</tr>
<tr>
<td>2000</td>
<td>420</td>
<td>197,834</td>
<td>0.34</td>
<td>220</td>
<td>2.4</td>
</tr>
<tr>
<td>2002</td>
<td>423</td>
<td>195,574</td>
<td>0.38</td>
<td>250</td>
<td>2.9</td>
</tr>
</tbody>
</table>
Table III: Average Lobby Spending by Industry Group and Year

<table>
<thead>
<tr>
<th>2-digit SIC(^a)</th>
<th>Industry</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-09</td>
<td>Agriculture, forestry &amp; fishing</td>
<td>0.200</td>
<td>0.230</td>
<td>0.502</td>
<td>0.139</td>
<td>0.319</td>
<td>0.397</td>
<td>0.476</td>
<td>0.589</td>
<td>0.357</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2)(^b)</td>
<td>(5)</td>
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<tr>
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<td>80-89</td>
<td>Healthcare &amp; other services</td>
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<td>0.201</td>
<td>0.190</td>
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</table>

This table reports data from the Center for Responsive Politics. The CRP data includes lobbying, PAC, and soft-money contributions as distinct categories. CRP reports lobbying expenses by calendar year and both PAC and soft-money contributions by election cycle.

\(^a\)SIC classification is from the U.S. Department of Labor at [http://www.osha.gov](http://www.osha.gov)

\(^b\)Number of firms is in parenthesis.
Table IV  Descriptive Statistics  
(Firms with fiscal years ending in December)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Panel A: Firms with non-zero lobbying spending</th>
<th>Panel B: All Compustat firms</th>
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<tr>
<td></td>
<td>Obs, Mean, Std. Dev., Min, Max</td>
<td>Obs, Mean, Std. Dev., Min, Max</td>
</tr>
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<td>IBEI</td>
<td>4,400, 507.86, 1,977.71, -25,779.47, 36,130.00</td>
<td>53,685, 108.10, 924.44, -44,574.00, 36,130.00</td>
</tr>
<tr>
<td>NI</td>
<td>4,400, 501.72, 2,014.38, -25,779.47, 36,130.00</td>
<td>53,686, 104.43, 1,106.18, -98,696.00, 36,130.00</td>
</tr>
<tr>
<td>CFO</td>
<td>4,272, 1,111.21, 3,500.09, -25,658.00, 78,470.00</td>
<td>47,362, 274.95, 1,734.79, -48,073.47, 102,999.81</td>
</tr>
<tr>
<td>ASSET</td>
<td>4,402, 25,904.71, 100,906.42, 0.00, 1,494,037.00</td>
<td>53,806, 6,771.52, 50,490.00, 0.00, 1,588,784.81</td>
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<tr>
<td>LOBBY</td>
<td>4,676, 0.64, 1.40, 0.01, 18.77</td>
<td>43,256, 14.33, 755.40, -39,679.00, 47,720.00</td>
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<tr>
<td>MB</td>
<td>3,963, 4.83, 114.42, -656.93, 7,071.35</td>
<td>45,685, 3.55, 169.50, -11,100.00, 24,950.20</td>
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<tr>
<td>PRICE</td>
<td>4,108, 35.27, 71.84, 0.00, 1,522.00</td>
<td>57,929, 29.85, 970.03, 0.00, 88,620.00</td>
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<tr>
<td>RETURN</td>
<td>3,292, 0.14, 0.63, -0.94, 4.16</td>
<td>43,798, 0.16, 1.08, -0.98, 9.00</td>
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<tr>
<td>∆IBEI</td>
<td>3,234, 56.19, 1,487.24, -26,472.00, 27,357.87</td>
<td>43,255, 12.49, 1,108.52, -93,775.00, 101,335.00</td>
</tr>
<tr>
<td>∆NI</td>
<td>3,234, 62.31, 1,525.00, -26,213.00, 27,357.87</td>
<td>38,180, 24.42, 1,051.23, -69,093.23, 47,370.00</td>
</tr>
<tr>
<td>∆CFO</td>
<td>3,143, 134.68, 1,915.67, -44,739.00, 36,706.00</td>
<td></td>
</tr>
<tr>
<td>∆LOBBY</td>
<td>3,461, 0.04, 0.63, -7.55, 11.39</td>
<td></td>
</tr>
</tbody>
</table>

Variable definitions:
IBEI = income before extraordinary items, in $millions;
NI = net income, in $millions;
CFO = cash from operations, in $millions;
ASSET = total assets at the beginning of year t, in $millions;
LOBBY = annual lobbying spending, in $millions;
MB = market-to-book ratio at the end of the year;
PRICE = share price at three months after the end of year t;
RETURN = change of market value from three months after the end of year t-1 to three months after the end of year t, deflated by market value at three months after the end of year t-1;
∆IBEI = change in income before extraordinary items from year t-1 to year t;
∆NI = change in net income from year t-1 to year t;
∆CFO = change in cash from operations from year t-1 to year t;
∆LOBBY = change in lobbying expenditures from year t-1 to year t;
Table V Panel Regression of Firm Performance on Lobby Spending

<table>
<thead>
<tr>
<th>VARIABLES</th>
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<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
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<tbody>
<tr>
<td>IBEI</td>
<td>76.528***</td>
<td>32.701***</td>
<td>73.958***</td>
<td>45.206***</td>
<td>33.349**</td>
<td>15.579</td>
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<tr>
<td>ΔIBEI</td>
<td>(7.122)</td>
<td>(3.224)</td>
<td>(5.507)</td>
<td>(3.485)</td>
<td>(2.376)</td>
<td>(1.090)</td>
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<td>0.001***</td>
<td>0.002***</td>
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<td>0.005**</td>
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<td>(4.739)</td>
<td>(4.477)</td>
<td>(2.171)</td>
<td>(2.353)</td>
<td>(3.475)</td>
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<td>CFO</td>
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<td>-0.001</td>
<td>-0.003</td>
<td>-0.004</td>
<td>-0.000</td>
<td>-0.002</td>
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<tr>
<td>ΔCFO</td>
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<td>(-0.222)</td>
<td>(-0.799)</td>
<td>(-0.698)</td>
<td>(-0.309)</td>
<td>(-1.266)</td>
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<tr>
<td>dependent variable</td>
<td>0.642***</td>
<td>-0.188***</td>
<td>0.562***</td>
<td>-0.393***</td>
<td>0.664***</td>
<td>-0.351***</td>
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<tr>
<td>t-1</td>
<td>(26.604)</td>
<td>(-6.921)</td>
<td>(24.205)</td>
<td>(-15.252)</td>
<td>(23.698)</td>
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<tr>
<td>dependent variable</td>
<td>0.192***</td>
<td>-0.307***</td>
<td>0.206***</td>
<td>-0.198***</td>
<td>0.269***</td>
<td>-0.149***</td>
</tr>
</tbody>
</table>

Observations: 30622, 23308, 29524, 22289, 25849, 19585
Number of clusters: 7406, 6275, 7280, 6098, 6344, 5350
industry dummies: yes, yes, yes, yes, yes, yes
time dummies: yes, yes, yes, yes, yes, yes
R-squared (between): 0.866, 0.0424, 0.821, 0.0245, 0.925, 0.0373
R-squared (within): 0.0952, 0.195, 0.0812, 0.221, 0.111, 0.217
R-squared (overall): 0.748, 0.115, 0.720, 0.116, 0.837, 0.0969

*** p<0.01, ** p<0.05, * p<0.1

Robust z statistics in parentheses

This table reports OLS estimates of the relationship between lobbying and firm performance. Firm performance is measured by: IBEI = income before extraordinary items in year t; ΔIBEI = change in income before extraordinary items from year t-1 to year t; NI = net income in year t; ΔNI = change in net income from year t-1 to year t; CFO = cash from operations in year t; ΔCFO = change in cash from operations from year t-1 to year t. Independent variables are: LOBBY = lobbying spending in year t-1; MB = market-to-book ratio at the end of year t; ASSET = total assets at the beginning of the year t. The sample includes all stocks on the NYSE, AMEX, and Nasdaq with coverage on the CRSP and COMPUSTAT files annually, for the years 1998-2005. Two-tailed z-statistics (adjusted for clustering at the firm level) in the parenthesis under the coefficient estimates. *, **, and *** indicate the regression coefficients are significantly different from zero at the 10%, 5%, and 1% level, respectively.
Table VI Selection Bias: Treatment Effects Models

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<td>0.00034**</td>
<td>0.00076***</td>
<td>0.00071***</td>
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<td>0.00034**</td>
<td>0.00076***</td>
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<td>(1.977)</td>
</tr>
</tbody>
</table>

Robust z statistics in parentheses

This table reports estimates of a simultaneous two equation system: the decision to lobby is estimated via a probit model, and the relationship between lobbying and firm performance in the second equation. Import share is defined as the share of imports in industry i's shipments in 1994. Import growth is the growth of sector i's imports over the longest interval for which we have data during the period 1958-1994. The number of firms lobbying in industry i is the simple count of firms in industry i with positive lobbying expenditures in year t-1. The dependent variables are: IBEI = income before extraordinary items in year t; ∆IBEI = change in income before extraordinary items from year t-1 to year t; NI = net income in year t; ∆NI = change in net income from year t-1 to year t; CFO = cash from operations in year t; ∆CFO = change in cash from operations from year t-1 to year t. Independent variables are: LOBBY = lobbying spending in year t-1; MB = market-to-book ratio at the end of year t; ASSET = total assets at the beginning of the year t. The sample includes all stocks on the NYSE, AMEX, and Nasdaq with coverage on the CRSP and COMPUSTAT files annually, for the years 1998-2005. All models are estimated by maximum likelihood estimates with two-tailed z-statistics (adjusted for clustering at the firm level) in the parenthesis under the coefficient estimates. *, **, and *** indicate the regression coefficients are significantly different from zero at the 10%, 5%, and 1% level, respectively.

** p<0.01, *** p<0.005, * p<0.1
Table VII  Returns and Characteristics of Portfolios Classified by Lobbying Expenditure Relative to Assets

<table>
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<th>Rank</th>
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<th>5(High)</th>
<th>Non-Lobbying</th>
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<td>Panel A: Returns before and after portfolio formation</td>
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<tr>
<td>Average annual return over 3-year period before portfolio formation</td>
<td>0.1681</td>
<td>0.1495</td>
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<td>0.2254</td>
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<tr>
<td>First year after portfolio formation</td>
<td>0.1148</td>
<td>0.1601</td>
<td>0.1396</td>
<td>0.2088</td>
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<tr>
<td>Second year after portfolio formation</td>
<td>0.1842</td>
<td>0.1612</td>
<td>0.2350</td>
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<td>0.2480</td>
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<tr>
<td>Third year after portfolio formation</td>
<td>0.1491</td>
<td>0.1923</td>
<td>0.1680</td>
<td>0.1714</td>
<td>0.2278</td>
<td>0.2419</td>
</tr>
<tr>
<td>Average annual return over 3-year period after portfolio formation</td>
<td>0.1494</td>
<td>0.1712</td>
<td>0.1809</td>
<td>0.1835</td>
<td>0.2681</td>
<td>0.2623</td>
</tr>
<tr>
<td>Panel B: Excess returns before and after portfolio formation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average annual return over 3-year period before portfolio formation</td>
<td>-0.0381</td>
<td>-0.0761</td>
<td>-0.0588</td>
<td>-0.0071</td>
<td>-0.0514</td>
<td>0.0060</td>
</tr>
<tr>
<td>First year after portfolio formation</td>
<td>-0.0263</td>
<td>0.0160</td>
<td>-0.0112</td>
<td>0.0481</td>
<td>0.1083</td>
<td>-0.0035</td>
</tr>
<tr>
<td>Second year after portfolio formation</td>
<td>0.0200</td>
<td>-0.0123</td>
<td>0.0641</td>
<td>0.0003</td>
<td>0.0230</td>
<td>-0.0025</td>
</tr>
<tr>
<td>Third year after portfolio formation</td>
<td>-0.0142</td>
<td>0.0215</td>
<td>-0.0031</td>
<td>0.0036</td>
<td>0.0349</td>
<td>-0.0011</td>
</tr>
<tr>
<td>Average annual return over 3-year period after portfolio formation</td>
<td>-0.0068</td>
<td>0.0084</td>
<td>0.0166</td>
<td>0.0173</td>
<td>0.0554</td>
<td>-0.0024</td>
</tr>
<tr>
<td>Panel C: Characteristics of Portfolios</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average number of observations</td>
<td>485</td>
<td>491</td>
<td>490</td>
<td>491</td>
<td>488</td>
<td>18,834</td>
</tr>
<tr>
<td>Lobby spending relative to assets</td>
<td>0.0006%</td>
<td>0.0025%</td>
<td>0.0067%</td>
<td>0.0149%</td>
<td>0.1151%</td>
<td>0%</td>
</tr>
<tr>
<td>Lobby spending relative to sales</td>
<td>0.0023%</td>
<td>0.0049%</td>
<td>0.0160%</td>
<td>0.1305%</td>
<td>0.3712%</td>
<td>0%</td>
</tr>
<tr>
<td>Lobby spending relative to market value</td>
<td>0.0021%</td>
<td>0.0052%</td>
<td>0.0111%</td>
<td>0.0223%</td>
<td>0.1021%</td>
<td>0%</td>
</tr>
<tr>
<td>Book-to-market</td>
<td>0.5405</td>
<td>0.5363</td>
<td>0.5288</td>
<td>0.5020</td>
<td>0.4849</td>
<td>0.7120</td>
</tr>
<tr>
<td>Sales-to-market</td>
<td>1.2345</td>
<td>1.4492</td>
<td>1.3465</td>
<td>1.2013</td>
<td>1.3486</td>
<td>1.9370</td>
</tr>
<tr>
<td>Earnings-to-price</td>
<td>-0.0070</td>
<td>0.0001</td>
<td>0.0076</td>
<td>0.0111</td>
<td>-0.0767</td>
<td>-0.0796</td>
</tr>
<tr>
<td>Dividend yield</td>
<td>0.0200</td>
<td>0.0171</td>
<td>0.0177</td>
<td>0.0171</td>
<td>0.0083</td>
<td>0.0161</td>
</tr>
<tr>
<td>Return on equity</td>
<td>0.0984</td>
<td>0.0957</td>
<td>0.2068</td>
<td>0.1316</td>
<td>0.0988</td>
<td>0.0868</td>
</tr>
</tbody>
</table>

The sample includes all stocks on the NYSE, AMEX, and Nasdaq with coverage on the CRSP and COMPUSTAT files. In Panel A, each portfolio's average annual buy-and-hold return is reported over the three years prior to portfolio formation; over each year from one to three years after portfolio formation; and averaged over the three years after portfolio formation. Panel B reports each portfolio's average return in excess of the equally weighted return on a control portfolio of stocks matched by firm size and book-to-market in the first through third years. Panel C reports characteristics of the portfolios: the average number of component stocks; the ratios of lobbying expenditures to assets, to sales, and to market value of equity; book value of equity relative to market value of equity; sales relative to market value of equity; earnings relative to price; annual dividends divided by market value of equity; return on equity (earnings divided by the prior year's book value of equity); and the natural logarithm of total assets in millions of dollars.
Table VIII  Returns and Characteristics of Portfolios Classified by Lobbying Expenditure Relative to Market Value

<table>
<thead>
<tr>
<th>Rank</th>
<th>1(Low)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5(High)</th>
<th>Non-Lobbying</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Returns before and after portfolio formation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average annual return over 3-year period before portfolio formation</td>
<td>0.2578</td>
<td>0.2490</td>
<td>0.1815</td>
<td>0.1712</td>
<td>0.1391</td>
<td>0.2254</td>
</tr>
<tr>
<td>First year after portfolio formation</td>
<td>0.0800</td>
<td>0.1255</td>
<td>0.1614</td>
<td>0.2249</td>
<td>0.3590</td>
<td>0.2970</td>
</tr>
<tr>
<td>Second year after portfolio formation</td>
<td>0.1414</td>
<td>0.1594</td>
<td>0.1808</td>
<td>0.2150</td>
<td>0.3026</td>
<td>0.2480</td>
</tr>
<tr>
<td>Third year after portfolio formation</td>
<td>0.1148</td>
<td>0.1479</td>
<td>0.1633</td>
<td>0.1981</td>
<td>0.2844</td>
<td>0.2419</td>
</tr>
<tr>
<td>Average annual return over 3-year period after portfolio formation</td>
<td>0.1120</td>
<td>0.1443</td>
<td>0.1685</td>
<td>0.2127</td>
<td>0.3153</td>
<td>0.2623</td>
</tr>
<tr>
<td><strong>Panel B: Excess returns before and after portfolio formation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average annual return over 3-year period before portfolio formation</td>
<td>-0.0199</td>
<td>-0.0191</td>
<td>-0.0723</td>
<td>-0.0558</td>
<td>-0.0643</td>
<td>0.0060</td>
</tr>
<tr>
<td>First year after portfolio formation</td>
<td>-0.0307</td>
<td>-0.0016</td>
<td>0.0268</td>
<td>0.0533</td>
<td>0.0870</td>
<td>-0.0035</td>
</tr>
<tr>
<td>Second year after portfolio formation</td>
<td>0.0087</td>
<td>0.0082</td>
<td>0.0063</td>
<td>0.0187</td>
<td>0.0534</td>
<td>-0.0025</td>
</tr>
<tr>
<td>Third year after portfolio formation</td>
<td>-0.0262</td>
<td>-0.0094</td>
<td>0.0013</td>
<td>0.0153</td>
<td>0.0617</td>
<td>-0.0011</td>
</tr>
<tr>
<td>Average annual return over 3-year period after portfolio formation</td>
<td>-0.0161</td>
<td>-0.0009</td>
<td>0.0114</td>
<td>0.0291</td>
<td>0.0674</td>
<td>-0.0024</td>
</tr>
<tr>
<td><strong>Panel C: Characteristics of Portfolios</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average number of observations</td>
<td>485</td>
<td>491</td>
<td>490</td>
<td>491</td>
<td>488</td>
<td>18,834</td>
</tr>
<tr>
<td>Lobby spending relative to assets</td>
<td>0.0016%</td>
<td>0.0051%</td>
<td>0.0097%</td>
<td>0.0197%</td>
<td>0.1035%</td>
<td>0%</td>
</tr>
<tr>
<td>Lobby spending relative to sales</td>
<td>0.0037%</td>
<td>0.0139%</td>
<td>0.0635%</td>
<td>0.0804%</td>
<td>0.3613%</td>
<td>0%</td>
</tr>
<tr>
<td>Lobby spending relative to market value</td>
<td>0.0008%</td>
<td>0.0030%</td>
<td>0.0072%</td>
<td>0.0175%</td>
<td>0.1144%</td>
<td>0%</td>
</tr>
<tr>
<td>Book-to-market</td>
<td>0.3561</td>
<td>0.4007</td>
<td>0.4683</td>
<td>0.5867</td>
<td>0.7801</td>
<td>0.7120</td>
</tr>
<tr>
<td>Sales-to-market</td>
<td>0.7443</td>
<td>0.9177</td>
<td>1.1169</td>
<td>1.5498</td>
<td>2.2504</td>
<td>1.9370</td>
</tr>
<tr>
<td>Earnings-to-price</td>
<td>0.0280</td>
<td>-0.0026</td>
<td>0.0120</td>
<td>-0.0098</td>
<td>-0.0922</td>
<td>-0.0796</td>
</tr>
<tr>
<td>Dividend yield</td>
<td>0.0146</td>
<td>0.0137</td>
<td>0.0167</td>
<td>0.0176</td>
<td>0.0174</td>
<td>0.0161</td>
</tr>
<tr>
<td>Return on equity</td>
<td>0.1977</td>
<td>0.0978</td>
<td>0.1400</td>
<td>0.0588</td>
<td>0.1385</td>
<td>0.0868</td>
</tr>
<tr>
<td>Log Assets</td>
<td>9.6101</td>
<td>8.9058</td>
<td>8.2617</td>
<td>7.5269</td>
<td>5.7513</td>
<td>5.5051</td>
</tr>
</tbody>
</table>

The sample includes all stocks on the NYSE, AMEX, and Nasdaq with coverage on the CRSP and COMPUSTAT files. In Panel A, each portfolio's average annual buy-and-hold return is reported over the three years prior to portfolio formation; over each year from one to three years after portfolio formation; and averaged over the three years after portfolio formation. Panel B reports each portfolio's average return in excess of the equally weighted return on a control portfolio of stocks matched by firm size and book-to-market in the first through third years. Panel C reports characteristics of the portfolios: the average number of component stocks; the ratios of lobbying expenditures to assets, to sales, and to market value of equity; book value of equity relative to market value of equity; sales relative to market value of equity; earnings relative to price; annual dividends divided by market value of equity; return on equity (earnings divided by the prior year's book value of equity); and the natural logarithm of total assets in millions of dollars.
Table IX  Excess Returns of Portfolios Classified by Lobbying Expenditure Relative to Assets and by Past 3-year Return

<table>
<thead>
<tr>
<th>Ranked by Lobby spending relative to assets</th>
<th>Past 3-year return</th>
<th>Excess Return in Year after Portfolio Formation</th>
<th>Average Excess Return over 3 Post-formation Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First Year</td>
<td>Second Year</td>
</tr>
<tr>
<td>1(Low)</td>
<td>1(Low)</td>
<td>-0.0260</td>
<td>-0.0037</td>
</tr>
<tr>
<td></td>
<td>2(High)</td>
<td>-0.0265</td>
<td>0.0435</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0.0063</td>
<td>0.0393</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.0257</td>
<td>-0.0632</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>-0.0100</td>
<td>0.0804</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-0.0124</td>
<td>0.0482</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0.0118</td>
<td>0.0004</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.0840</td>
<td>0.0003</td>
</tr>
<tr>
<td>5(High)</td>
<td>1(Low)</td>
<td>0.1155</td>
<td>-0.0081</td>
</tr>
<tr>
<td></td>
<td>2(High)</td>
<td>0.1012</td>
<td>0.0539</td>
</tr>
</tbody>
</table>

The sample includes all firms listed on NYSE, AMEX, and Nasdaq with coverage on the CRSP and COMPUSTAT files. All stocks with lobbying expenditures are ranked by lobbying expenditures relative to assets, and assigned to one of five equally sized portfolios. Within each of the five portfolios, stocks are further ranked by their rates of return over the prior three years and subdivided into two equally sized groups. The table reports each portfolio's average excess return over each of the first three years following portfolio formation and over all three years after portfolio formation. Excess returns are computed relative to a control portfolio of stocks based on size and book-to-market and then past three-year return. The excess return is the difference between the stock's annual buy-and-hold return and the return on the control portfolio.
## Appendix Table 1 Panel Regression of Firm Performance on Lobby Spending: Largest Lobbying Spenders

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBEI</td>
<td>77.516***</td>
<td>32.665***</td>
<td>75.856***</td>
<td>45.124***</td>
<td>35.076**</td>
<td>13.996</td>
</tr>
<tr>
<td>ΔIBEI</td>
<td>6.956</td>
<td>3.030</td>
<td>5.283</td>
<td>3.295</td>
<td>2.388</td>
<td>0.879</td>
</tr>
<tr>
<td>NI</td>
<td>77.516***</td>
<td>32.665***</td>
<td>75.856***</td>
<td>45.124***</td>
<td>35.076**</td>
<td>13.996</td>
</tr>
<tr>
<td>ΔNI</td>
<td>6.956</td>
<td>3.030</td>
<td>5.283</td>
<td>3.295</td>
<td>2.388</td>
<td>0.879</td>
</tr>
<tr>
<td>CFO</td>
<td>35.076**</td>
<td>13.996</td>
<td>35.076**</td>
<td>13.996</td>
<td>35.076**</td>
<td>13.996</td>
</tr>
<tr>
<td>ΔCFO</td>
<td>2.388</td>
<td>0.879</td>
<td>2.388</td>
<td>0.879</td>
<td>2.388</td>
<td>0.879</td>
</tr>
<tr>
<td>assets</td>
<td>0.002***</td>
<td>0.001***</td>
<td>0.002***</td>
<td>0.001*</td>
<td>0.004**</td>
<td>0.005***</td>
</tr>
<tr>
<td></td>
<td>6.753</td>
<td>4.344</td>
<td>4.405</td>
<td>1.958</td>
<td>2.206</td>
<td>3.247</td>
</tr>
<tr>
<td>market-to-book ratio</td>
<td>0.000</td>
<td>0.002</td>
<td>0.001</td>
<td>0.002</td>
<td>0.000</td>
<td>-0.000</td>
</tr>
<tr>
<td></td>
<td>0.210</td>
<td>0.831</td>
<td>0.338</td>
<td>0.860</td>
<td>0.118</td>
<td>-0.341</td>
</tr>
<tr>
<td>dependent variable$_{t-1}$</td>
<td>0.624***</td>
<td>-0.345***</td>
<td>0.543***</td>
<td>-0.405***</td>
<td>0.690***</td>
<td>-0.345***</td>
</tr>
<tr>
<td>dependent variable$_{t-2}$</td>
<td>0.200***</td>
<td>-0.208***</td>
<td>0.200***</td>
<td>-0.200***</td>
<td>0.252***</td>
<td>-0.154***</td>
</tr>
<tr>
<td></td>
<td>6.437</td>
<td>-6.900</td>
<td>7.928</td>
<td>-6.493</td>
<td>7.931</td>
<td>-5.869</td>
</tr>
</tbody>
</table>

**Observations**
- (1) 28277
- (2) 21444
- (3) 27371
- (4) 20615
- (5) 23693
- (6) 17883

**Number of clusters**
- (1) 7120
- (2) 6016
- (3) 6993
- (4) 5845
- (5) 6065
- (6) 5098

**R-squared (between)**
- (1) 0.863
- (2) 0.0563
- (3) 0.809
- (4) 0.0395
- (5) 0.928
- (6) 0.0424

**R-squared (within)**
- (1) 0.0806
- (2) 0.203
- (3) 0.0677
- (4) 0.220
- (5) 0.113
- (6) 0.202

**R-squared (overall)**
- (1) 0.746
- (2) 0.124
- (3) 0.708
- (4) 0.120
- (5) 0.841
- (6) 0.0890

*** p<0.01, ** p<0.05, * p<0.1

Robust z statistics in parentheses

This table reports OLS estimates of the relationship between lobbying and firm performance, focusing on firms with the highest lobbying expenditures (top quartile). Firm performance is measured by: IBEI = income before extraordinary items in year $t$; ΔIBEI = change in income before extraordinary items from year $t-1$ to year $t$; NI = net income in year $t$; ΔNI = change in net income from year $t-1$ to year $t$; CFO = cash from operations in year $t$; ΔCFO = change in cash from operations from year $t-1$ to year $t$. Independent variables are: LOBBY = lobbying spending in year $t-1$; MB = market-to-book ratio at the end of year $t$; ASSET = total assets at the beginning of the year $t$. The sample includes all stocks on the NYSE, AMEX, and Nasdaq with coverage on the CRSP and COMPUSTAT files annually, for the years 1998-2005. Two-tailed z-statistics (adjusted for clustering at the firm level) in the parenthesis under the coefficient estimates. *, **, and *** indicate the regression coefficients are significantly different from zero at the 10%, 5%, and 1% level, respectively.
**Appendix Table 2 Panel Regression of Firm Performance on Lobby Spending among firms with Low Investor Protection**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) IBEI</th>
<th>(2) ΔIBEI</th>
<th>(3) NI</th>
<th>(4) ΔNI</th>
<th>(5) CFO</th>
<th>(6) ΔCFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>lobby_t-1</td>
<td>66.445***</td>
<td>24.190*</td>
<td>77.307***</td>
<td>52.099***</td>
<td>19.308</td>
<td>-3.771</td>
</tr>
<tr>
<td></td>
<td>(5.277)</td>
<td>(1.668)</td>
<td>(4.708)</td>
<td>(3.645)</td>
<td>(1.116)</td>
<td>(-0.221)</td>
</tr>
<tr>
<td>assets</td>
<td>0.002***</td>
<td>0.001***</td>
<td>0.002***</td>
<td>0.001*</td>
<td>0.003**</td>
<td>0.004***</td>
</tr>
<tr>
<td></td>
<td>(6.179)</td>
<td>(3.538)</td>
<td>(3.959)</td>
<td>(1.809)</td>
<td>(2.059)</td>
<td>(2.910)</td>
</tr>
<tr>
<td>market-to-book ratio</td>
<td>-0.000</td>
<td>0.001</td>
<td>-0.000</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(-0.280)</td>
<td>(0.348)</td>
<td>(-0.158)</td>
<td>(0.351)</td>
<td>(0.525)</td>
<td>(0.084)</td>
</tr>
<tr>
<td>dependent variable_t-1</td>
<td>0.654***</td>
<td>-0.310***</td>
<td>0.571***</td>
<td>-0.405***</td>
<td>0.649***</td>
<td>-0.385***</td>
</tr>
<tr>
<td>dependent variable_t-2</td>
<td>0.204***</td>
<td>-0.178***</td>
<td>0.213***</td>
<td>-0.222***</td>
<td>0.307***</td>
<td>-0.153***</td>
</tr>
<tr>
<td></td>
<td>(7.569)</td>
<td>(-6.225)</td>
<td>(8.099)</td>
<td>(-7.354)</td>
<td>(9.475)</td>
<td>(-5.183)</td>
</tr>
</tbody>
</table>

**Δlobby\_t-1**

| Observations | 25683 | 19435 | 24903 | 18714 | 21539 | 16221 |
| Number of clusters | 6771 | 5720 | 6645 | 5563 | 5784 | 4865 |
| industry dummies | yes | yes | yes | yes | yes | yes |
| time dummies | yes | yes | yes | yes | yes | yes |
| R-squared (between) | 0.849 | 0.0219 | 0.810 | 0.0328 | 0.911 | 0.0407 |
| R-squared (within) | 0.107 | 0.205 | 0.0639 | 0.241 | 0.106 | 0.248 |
| R-squared (overall) | 0.755 | 0.102 | 0.704 | 0.126 | 0.838 | 0.104 |

*** p<0.01, ** p<0.05, * p<0.1

This table reports OLS estimates of the relationship between lobbying and firm performance, focusing on firms with relatively weak corporate governance (top quartile of E-index) as measured by Bebchuk, et al., (2009). Firm performance is measured by: IBEI = income before extraordinary items in year t; ΔIBEI = change in income before extraordinary items from year t-1 to year t; NI = net income in year t; ΔNI = change in net income from year t-1 to year t; CFO = cash from operations in year t; ΔCFO = change in cash from operations from year t-1 to year t. Independent variables are: LOBBY = lobbying spending in year t-1; MB = market-to-book ratio at the end of year t; ASSET = total assets at the beginning of the year t. The sample includes all stocks on the NYSE, AMEX, and Nasdaq with coverage on the CRSP and COMPUSTAT files annually, for the years 1998-2005. Two-tailed z-statistics (adjusted for clustering at the firm level) in the parenthesis under the coefficient estimates. *, **, and *** indicate the regression coefficients are significantly different from zero at the 10%, 5%, and 1% level, respectively.