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Lobbying Legislation and Cumulative Abnormal Returns

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Abstract:

The Honest Leadership and Open Government Act of 2007 (Pub.L. 110-81, 121 Stat. 735, enacted September 14, 2007) was passed by the U.S. Congress in order "to strengthen public disclosure requirements concerning lobbying activity and funding. It placed more restrictions on gifts for members of Congress and their staff, and provides for mandatory disclosure of earmarks in expenditure bills." Treating this event as a natural experiment, we examine how this legislation affected the Cumulative Abnormal Returns (CARs) of firms that lobbied in the year(s) leading up to the passing of the legislation. We find that companies that lobbied in the years leading up to the legislation significantly underperformed the market in the days surrounding the passage of the legislation.

1. Introduction

       This paper attempts to answer the question of how much value investors place on lobbying expenditures by companies and how "The Honest Leadership and Open Government Act of 2007" affected the stock returns of those companies surrounding the implementation of the legislation. The null hypothesis is that the passing of this legislation would have no effect on the stock returns of these companies. This legislation requires companies that lobby to increase public disclosure requirements surrounding lobbying activity and funding. This would add increased costs to their lobbying activities and the increased disclosures could discourage certain types of lobbying as the activities would now be public. The legislation also placed more restrictions on gifts for members of Congress and their staff. This part of the law would make it more difficult to sway or bribe politicians as any gifts would face increased scrutiny. The final part of the bill calls for a mandatory disclosure of earmarks in expenditure bills. This makes it more difficult for legislators to provide kickbacks to these companies that had spent money lobbying.

       This question is important because it helps to show the types of behaviors that we encourage in these companies. Finding that legislation has no effect would suggest that investors view these new regulations as having no consequences from a cost perspective on the performance of these companies. Finding that this legislation increases the stock returns of companies that lobby would indicate that investors view the increased openness and scrutiny of lobbying positively while finding that the legislation decreased returns for these companies in the days leading up to and following the passing of the legislation would mean that investors view this bill as a negative effect for the future cash flows of these companies.

In order to answer this question, we examine data from the Center for Responsive Politics (CRP) for firms that had lobbied anytime during the five year period leading up to the passing of the law. We then divide these companies into three treatment groups. The first group consists of companies that lobbied in 2007, the second treatment group consists of firms that lobbied anytime during the three years prior to 2007 (2005-2007), and the third and final treatment group was companies that lobbied anytime in the five years prior to 2007 (2003-2007). The treatment groups are not mutually exclusive and there is a fair amount of overlap between the samples. Cumulative Abnormal Returns (CARs) for the treatment groups was obtained using data from the Center for Research in Security Prices (CRSP) and was accessed through Wharton Research Data Services (WRDS).

We examined several different event windows surrounding the passage of this legislation to study the CARs of these treatment groups. The windows used were -5 to +5, -4 to +4, -3 to +3, -2 to +2, -1 to +1, -5 to 0, -3 to 0, -1 to 0, 0 to +3, and 0 to +5. Day 0 designates the day the legislation was enacted into law, the negative and positive days represent the days before and after the event, respectively. We used the CRSP value-weighted index as the market benchmark. The purpose in doing so is that value-weighting the benchmark provides a more accurate representation of the results as larger firms are those that lobby the most. We also ran cross-sectional regression after controlling for some other common variables showing that the actually lobbying amount is weakly associated with the CARs of these firms.

Results show that the days prior to the event had significantly negative returns across all treatment groups. The days after also had negative CARs across all treatment groups, although weaker with a lower level of significance. These results suggest that investors view the

legislation as costly to those firms that lobby and subsequently bid prices down during the period surrounding the legislation.

2. Data

As mentioned above, we obtain data for what firms had lobbied during these years of interest from the CRP. We carefully match these firms to both CRSP and Compustat. After the matching of the firms, we then divide these companies into three treatment groups. The first group consists of companies that lobbied in 2007, the second treatment group consists of firms that lobbied anytime during the three years prior to 2007 (2005-2007), and the third and final treatment group consists of companies that lobbied anytime during the five years prior to 2007 (2003-2007). As mentioned previously, Cars are estimated using data from CRSP and the data was accessed through Wharton Research Data Services (WRDS).

Table one gives a brief overview of the types of companies that were included in the treatment groups. The control group (i.e., the benchmark) consists of all of the companies in the stock market. The table shows that the three treatment groups were composed largely of similar companies in terms of size and share price. As seen in the table, we include several stock-specific characteristics. Each of these characteristics are obtained on the day the lobbying legislation passed (September 14th, 2007). Price is the close share price. Size is the market capitalization at the end of the event day. Turnover is the percent of shares outstanding that are traded on the event day. Volatility is the natural log of the intraday high price less the intraday low price. Spread is the bid-ask spread, or the difference between the closing ask price and the closing bid price – scaled by the spread midpoint. As seen in the table, the average stock in our first treatment sample

has a price of $37.54, a market capitalization of $12.9 billion, share turnover of 7.77%, volatility of 0.5338, and a bid-ask spread of .27%.

3. Results

In this section, we examine CARs of firms that lobbied in the years preceding the passing of The Honest Leadership and Open Government Act of 2007. An abnormal return is the difference between the return that is expected and the actual return of a security. CARs are the sum of the abnormal returns. In this case, the abnormal returns were triggered by the event of congress enacting a new law. We calculate abnormal returns in two ways. First, the calculation formula for abnormal returns is as follows:

$$AR_{it} = R_{it} - R_{mt} \quad (1)$$

where:

AR_{it} - abnormal return for firm i on day t

R_{it} - actual return for firm i on day t

$R_{m,t}$ – return on the CRSP value-weighted index on day t

The second way we estimate abnormal returns is by using the daily market model. In particular, we estimate the following regression.

$$AR_{it} = \alpha + \beta R_{mt} + \varepsilon_{it} \quad (2)$$

Here, ε_{it} represents the portion of daily returns for stock i that is orthogonal to the market returns. That is, ε_{it} is the measure of abnormal returns. In the next two tables, we present our CARs for the market model estimation (MM), as well as the estimation from equation (1) (MAR). For additional robustness, we also include CARs obtained from Scholes-Williams(1977) betas.

These betas account for non-synchronous trading bias. In particular, the Scholes-Williams betas are estimated as a function of lagged betas and leading betas. We denote the CARs obtained from a Scholes-Williams model as SW. In table 2, we see that all three treatment groups across all windows had significantly negative CARs at the 99% confidence level. Treatment group 3 had the most significance in terms of absolute T-Values while treatment group 1 had the least significance. However, the results are significant across all three panels of the table. Table 2 presents the results for five windows. These windows start before the day of the event and finish after the event. The highest significance was found in the window from 2 days before the event to two days after the event. Treatment 3 includes companies that had a longer history of lobbying, and the fact that there returns were more negative in terms of absolute t-values would lend credence to the hypothesis that investors view companies with a longer history of lobbying as being more negatively affected by this legislation.

Table 3 provides the results for six additional windows. These windows start either before the event and finish on the day of the event or start on the day of the event and finish after the event. They show that the CARs of these firms were significantly negative in the days leading up to the legislation, but show that this significance goes away after the day of the event. After the event, the returns of these firms were, for the most part, negative, but not significantly different from zero. These results are important since they suggest that, if anything, the negative CARs occur in the period before the legislation instead of after the legislation is passed.

In additional tests, we estimate a regression for the window from three days before the event to three days after the event with the following equation:

$$CAR(-3,3)_i = \beta_1 Ln(LobbyAmt+1_i) + \beta_2 Ln(Price_i) + \beta_3 Ln(MktCap_i) + \beta_4 Ln(Spread_i) + \beta_5 Ln(Turnover_i) + \beta_6 Volatility + \alpha + \varepsilon_i$$

The variable of interest is *Ln(LobbyAmt+1_i).* With this equation, we attempt to answer the question of whether or not the amount of lobbying had an effect on the returns of these companies. We do not find a significant association between CARs and the amount lobbied in treatment 1. In treatment 2, we find a negative and significant coefficient in column [6]. These results suggest that MAR CARs are more negative for firms that lobbied more. We find similar results in columns [8] and [9] as the coefficient on $Ln(LobbyAmt+1_t)$ is negative and significant. These results provide weak evidence that the negative CARs documented in earlier tables are driven by firms with the most lobbying.

4. Conclusion

We conclude that firms that lobbied in the years leading up to the passing of The Honest Leadership and Open Government Act of 2007 experienced negative CARs in the days leading up to the passing of the legislation leading us to believe that investors saw the money that these firms had spent in lobbying under the old rules as valuable and the new legislation reduced some of that value. The amount of money spent lobbying mattered more to firms that had a history of lobbying than to firms that had only lobbied in 2007.

Table 1 – Summary Statistics

This table gives an overview of the characteristics of the sample. Our sample is made up of firms that lobbied according to the Center for Responsive Politics, the other data came from The Center for Research in Security Prices (CRSP) and was accessed through Wharton Research Data Services (WRDS). We used three different samples in this study categorized into three treatment groups. Treatment 1 is firms that lobbied in 2007, treatment 2 is firms that lobbied in during the time period from 2005-2007, and treatment 3 consists of firms that lobbied during the time period from 2003-2007. All three samples had similar companies in terms of average price, size, turnover, and spread. The treatment groups are not mutually exclusive and there is a fair amount of overlap between the samples.

	Mean	Std. Deviation	Minimum	Median	Maximum
Panel A. Treatment Sample 1					
	[1]	[2]	[3]	[4]	[5]
Price	37.54	40.12	0.38	30.52	548.60
Size	12878974.85	35259638.52	12664.64	2330139.58	491787052
Turnover	7.7665	7.0261	0	5.8553	74.3262
Volatility	-0.5338	0.9527	-3.9120	-0.4943	2.3749
Spread	0.0027	0.0052	0	0.0013	0.0665
Panel B. Treatment Sample 2					
Price	36.59	34.91	0.38	30.59	548.60
Size	13107539.12	35970235.90	6455.58	2344889.75	491787052
Turnover	7.6188	7.1776	0	5.7405	74.3262
Volatility	-0.5731	0.9837	-4.6052	-0.5108	2.3749
Spread	0.0027	0.0049	0	0.0013	0.0665
Panel C. Treatment Sample 3					
Price	37.11	32.21	0.38	31.93	548.60
Size	13669073.81	36767167.85	6455.58	2618219.76	491787052
Turnover	7.5087	6.9148	0	5.7121	74.3262
Volatility	-0.5530	0.9813	-4.6052	-0.4943	2.3749
Spread	0.0026	0.0046	0	0.0013	0.0665

Table 2 – Daily CARs Surrounding the passing of The Honest Leadership and Open Government Act of 2007

This table reports the CARs for various event windows surrounding the passing of the Honest Leadership and Open Government Act of on September 14, 2007. We report CARs for five event windows (-5 to +5, -4 to +4, -3 to +3, -2 to +2, and -1 to +1). Results in this table report the CARs obtained from market model returns, Scholes Williams returns and market adjusted returns. Adjusted returns are calculated as the difference between raw returns and the market return benchmark. The market model is also estimated with the Scholes-Williams beta adjustment. This table includes results from all three treatment groups. Panel A reports the results for treatment 1, panel B reports the results for treatment 2, and panel 3 reports the results for treatment 3. All of the returns are calculated according to the CRSP value-weighted market index. In parenthesis, we report t-statistics. *,**, and *** denote statistical significance at the .10, .05, and the .01 levels, respectively.

	CAR(-5,5)	CAR(-4,4)	CAR(-3,3)	CAR(-2,2)	CAR(-1,1)
Panel A. CARs using the CRSP value-weighted market index TREATMENT GROUP 1					
	[1]	[2]	[3]	[4]	[5]
MM	-.01140	-.01240	-.00931	-.01130	-.00675
	(-3.53)***	(-4.24)***	(-3.54)***	(-5.69)***	(-4.35)***
MAR	-.00932	-.00942	-.00567	-.00900	-.00662
	(-4.04)***	(-4.49)***	(-3.01)***	(-6.40)***	(-6.11)***
SW	-.01200	-.01330	-.01040	-.01190	-.00679
	(-5.18)***	(-6.28)***	(-5.37)***	(-8.33)***	(-6.19)***
Panel B. CARs using the CRSP value-weighted market index TREATMENT GROUP 2					
MM	-.01190	-.01300	-.0100	-.01070	-.00609
	(-6.20)***	(-7.57)***	(-6.69)***	(-9.25)***	(-6.69)***
MAR	-.00982	-.01010	-.00654	-.00853	-.00594
	(-7.14)***	(-8.17)***	(-6.06)***	(-10.33)***	(-9.29)***
SW	-.01240	-.01360	-.01080	-.01120	-.00612
	(-9.01)***	(-11.03)***	(-9.91)***	(-13.46)***	(-9.50)***
Panel C. CARs using the CRSP value-weighted market index TREATMENT GROUP 3					
MM	-.01110	-.01180	-.00896	-.00977	-.00576
	(-7.45)***	(-8.84)***	(-7.64)***	(-10.51)***	(-7.86)***
MAR	-.00918	-.00912	-.00570	-.00774	-.00562
	(-8.54)***	(-9.44)***	(-6.74)***	(-11.66)***	(-10.91)***
SW	-.01140	-.01230	-.00962	-.01020	-.00577
	(-10.73)***	(-12.84)***	(-11.33)***	(-15.27)***	(-11.12)***

Table 3 – Daily CARs Surrounding the passing of The Honest Leadership and Open Government Act of 2007

This table reports the CARs for various event windows surrounding the enaction of the Honest Leadership and Open Government Act of 2007 into law on September 14, 2007. We report CARs for five event windows (-5 to 0, -3 to 0, -1 to 0, 0 to +3, and 0 to +5). Results in this table report the CARs obtained from market model returns, Scholes Williams returns and market adjusted returns. Adjusted returns are calculated as the difference between raw returns and the market return benchmark. The market model is also estimated with the Scholes-Williams beta adjustment. This table includes results from all three treatment groups. Panel A reports the results for treatment 1, panel B reports the results for treatment 2, and panel 3 reports the results for treatment 3. All of the returns are calculated according to the CRSP value-weighted market index. In parenthesis, we report t-statistics. *,**, and *** denote statistical significance at the .10, .05, and the .01 levels, respectively.

	CAR(-5,0)	CAR(-3,0)	CAR(-1,0)	CAR(0,1)	CAR(0,3)	CAR(0,5)
Panel A. CARs using the CRSP value-weighted market index TREATMENT GROUP 1						
MM	-.00666	-.00497	-.00291	-.00171	-.00221	-.00263
	(-3.10)***	(-2.85)***	(-2.20)**	(-1.22)	(-1.06)	(-1.08)
MAR	-.00657	-.00341	-.00232	-.00210	-.00005	-.00055
	(-4.36)***	(-2.81)***	(-2.51)**	(-2.15)**	(-0.03)	(-0.31)
SW	-.00667	-.00541	-.00307	-.00160	-.00282	-.00322
	(-4.40)***	(-4.36)***	(-3.29)***	(-1.61)	(-1.88)	(-1.83)*
Panel B. CARs using the CRSP value-weighted market index TREATMENT GROUP 2						
MM	-.00825	-.00648	-.00349	-.00044	-.00137	-.00148
	(-6.25)***	(-6.29)***	(-4.51)***	(-0.54)	(-1.17)	(-1.05)
MAR	-.00811	-.00499	-.00292	-.00079	.00069	.00053
	(-8.76)***	(-6.93)***	(-5.38)***	(-1.39)	(0.81)	(0.52)
SW	-.00826	-.00683	-.00362	-.00035	-.00186	-.00194
	(-8.86)***	(-9.32)***	(-6.62)***	(-0.61)	(-2.19)**	(-1.91)*
Panel C. CARs using the CRSP value-weighted market index TREATMENT GROUP 3						
MM	-.00817	-.00611	-.00321	-.00022	-.00052	-.00061
	(-7.77)***	(-7.51)***	(-5.28)***	(-0.33)	(-0.55)	(-0.56)
MAR	-.00804	-.00471	-.00267	-.00054	.00141	.00127
	(-10.88)***	(-8.29)***	(-6.29)***	(-1.17)	(2.09)**	(1.61)
SW	-.00814	-.00639	-.00331	-.00013	-.00091	-.00097
	(-10.94)***	(-11.07)***	(-7.71)***	(-0.27)	(-1.35)	(-1.24)

Table 4 – Cross-Sectional Regression Results

The table reports the results from estimating the following equation using cross-sectional data.

$$CAR(-3,3)_i = \beta_1 Ln(LobbyAmt+1_i) + \beta_2 Ln(Price_i) + \beta_3 Ln(MktCap_i) + \beta_4 Ln(Spread_i) + \beta_5 Ln(Turnover_i) + \beta_6 Volatility + \alpha + \varepsilon_i$$

The dependent variable is the CAR from (-3,3), where day 0 is the day the Honest Leadership and Open Government Act of 2007 was signed into law. We report regression results when we include each of the three estimated CARs using market models, Scholes-Williams market models, and market-adjusted returns. The independent variable of interest is the natural log of the lobby amount (Ln(LobbyAmt+1)). The control variables include the natural log of share price (Ln(Price)), the natural log of market capitalization (Ln(MktCap)), the natural log of closing bid-ask spreads (Ln(Spread)), the natural log of share turnover (Ln(Turnover)), and volatility. We report t-statistics in parentheses, which are obtained from White (1980) robust standard errors. *,**, and *** denote statistical significance at the .10, .05, and the .01 levels, respectively.

	Car(-3,3)								
	Treatment 1			Treatment 2			Treatment 3		
	VW Market Model	VW Scholes Williams	VW Adj. Returns	VW Market Model	VW Scholes Williams	VW Adj. Returns	VW Market Model	VW Scholes Williams	VW Adj. Returns
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Ln(LobbyAmt+1)	.00087 (1.46)	0.00085 (1.23)	.00037 (0.67)	0.00081 (0.76)	0.00149 (1.32)	-0.00211 (-1.96)**	0.00075 (0.94)	0.00149 (1.77)*	-0.00164 (-2.03)**
Ln(Price)	-0.01183 (-1.82)*	-0.00765 (-1.10)	-0.01192 (-1.84)*	-0.00950 (2.41)**	-0.00712 (-1.72)*	-0.01004 (-2.56)**	-0.00892 (-2.86)***	-0.00698 (-2.16)**	-0.00995 (-3.22)**
Ln(MktCap)	0.00085 (0.49)	0.00145 (0.79)	0.00002 (0.01)	0.00168 (1.47)	0.00185 (1.58)	0.00154 (1.34)	0.00206 (2.38)**	0.00219 (2.49)**	0.00167 (1.94)*
Ln(Spread)	-0.00233 (-0.77)	-0.00242 (-0.76)	-0.00270 (-0.91)	-0.00242 (-1.37)	-0.00315 (-1.71)*	-0.00307 (-1.79)*	-0.00046 (-0.33)	-0.00107 (-0.75)*	-0.00133 (-1.01)*
Ln(Turnover)	-0.01113 (-3.19)***	-0.01174 (-3.33)***	-0.00391 (-1.00)	-0.00661 (-3.06)***	-0.00837 (-3.7)***	0.00048 (0.21)	-0.00438 (-2.67)***	-0.00602 (-3.47)***	0.00185 (1.08)
Volatility	0.02480 (4.23)***	0.02040 (3.26)***	0.03016 (5.16)***	0.02128 (6.35)***	0.01764 (4.98)***	0.02731 (8.24)***	0.02004 (8.31)***	0.01657 (6.02)***	0.02681 (10.36)***
Constant	0.02424 (0.77)	-0.00208 (-0.06)	0.03725 (1.19)	-0.00731 (-0.38)	-0.03218 (-1.50)	0.02966 (1.54)	-0.00494 (-0.32)	-0.02806 (1.69)*	0.03118 (2.09)**
Adjusted R2	0.0633	0.0534	0.1215	0.0740	0.0621	0.1463	0.0731	0.0583	0.1527
N	436	436	436	1235	1235	1235	1905	1905	1905