

**Erasmus
School of
Economics**

Master Thesis

Financial Economics

**Does Corporate Political Activity of S&P 500
Companies Between 2015 Q1 – 2019 Q4 Lead to
Stock Market Gains?**

Cevin van der Vliet

Student number: 523707

Supervisor: Dr. Haikun Zhu

Second Assessor:

Final Version Date: October 17th, 2023

The views stated in this thesis are those of the author and not necessarily those of the supervisor, second assessor, Erasmus School of Economics or Erasmus University Rotterdam.

The Erasmus University logo, featuring the word "Erasmus" in a stylized, cursive script.

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Abstract

This paper examines forms corporate political activity among S&P 500 companies between 2015 Q1 – 2019 Q4 and examines the impact they have upon quarterly stock returns. The forms of corporate political activity considered in this study are lobbying, soft money contributions and corporate PACs. Using fixed effects panel regressions, this study proves the existence of a positive significant relationship between lobbying expenditures and quarterly stock returns. This paper also finds that larger S&P 500 constituents stand to gain less from lobbying relative to smaller ones. US lobbying legislation may become a point of renewed debate due to recent events involving FTX, these findings may support the need for politicians to revisit this subject.

Key-words: Lobbying, Soft Money Contributions, Political Action Committee (PAC), US government, Politics, S&P 500, Stock Returns

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1. Introduction

The biggest American companies dedicate large swaths of their resources towards lobbying as they see that there is tremendous value to be gained by having a presence in politics (Ginsberg & Hill, 2019). This is mainly due to the fact that lawmakers possess the ability to cause a profound financial impact on certain industries and the domestic or global economy, especially when considering American lawmakers. The amount of money spent by corporations on lobbying the US government is well into the range of billions of dollars each and every year. According to an Organisation for Economic Co-operation and Development (2013) report on Transparency and Integrity in Lobbying; lobbying expenditures at a federal level in the US hit a record level (at the time) of \$3.5 billion in 2010 which was right after the great recession. Furthermore, the report highlighted that only a third of OECD countries regulate lobbying as of 2013 and state that many OECD countries rely on self-regulation of lobbyists which can be viewed as an extremely lax approach. It is also important to note that stakeholders that are involved in lobbying the US government are not only limited to American corporations or groups. There are massive foreign spenders including governments and state-owned corporations like CCTV (China Central Television) who spent just above \$188 million dollars lobbying the US government from 2016-2022 (OpenSecrets, 2023). This paper will investigate the impact of corporate lobbying and other political contributions on the stock returns of S&P 500 companies from the start of 2015 until the end of 2019.

Although corporate political activity is not limited to lobbying, it is important to state that other forms of contributions involve substantially lower amounts (Kerr et al., 2014) and that lobbying is the primary method used by firms to influence policy. Lobbying expenditures are considered as corporate expenses whilst corporate Political Action Committee (PAC) contributions or donations are made by employees (Chen et al., (2015)). A negative viewpoint associated with corporate lobbying is that it allows corporations to have the possibility to exert influence over lawmakers (Hill et al. 2013), paving way for policies that fit their best interest instead of that of the public. On the other hand, a positive attribute may be that corporate lobbying is an important aspect of a democracy and is protected by the American constitution as freedom of speech (Chen et al., 2015). Lobbying may allow corporations to advocate for their interests, provide lawmakers with industry expertise or insights which may help accelerate job creation and lead to economic growth. Corporate lobbying and other forms of corporate political activity will remain a controversial yet relevant activity unless politicians who have recently expressed desires to increase legislation and oversight on lobbying are able to have their bills passed.

Senator Elizabeth Warren introduced a bill during late 2020 to the Senate (Anti-Corruption and Public Integrity Act, 2020), which aimed to introduce more stringent regulation on lobbying. Some of the proposed measures would have ended lobbying of the US government by foreign entities, banned any transfer of money or gifts from lobbyists to members of Congress, prevented former politicians or staffers from becoming lobbyists and introduced a type of tax over the lobbying expenditures of companies that spend excessively. It is important to note that this bill was introduced and therefore has not been voted on to date.

A recent controversy that ended up involving corporate political activity is the collapse of crypto trading platform FTX and the activities of its CEO Sam Bankman-Fried. According to the Financial Times (Miller & Chipolina, 2023), US prosecutors stated that Sam Bankman-Fried attempted to influence politicians of both major US political parties by donating tens of millions of dollars to them, evading contribution limits and obscuring the source of funds by making donations in the names of others. These statements made by US prosecutors have come with additional charges against the disgraced CEO. It is important to note that FTX was also regularly involved with lobbying American lawmakers in Washington DC (Asgari et al., 2022) and that the company has requested that politicians refund them the donations that Sam Bankman-Fried made individually. The events surrounding the collapse of FTX highlights the tremendous value that corporations and executives see in being involved in corporate political activity although the context may involve a lot of criminal activity. The recent events surrounding FTX and the Senate bill that was introduced establishes that corporate political activity is a very relevant topic when it comes to American politics. The next subjects that will be discussed are the boundaries of corporate political activity, the practices of the largest American firms and sources of data.

Corporations are barred from making any direct contributions in connection to federal elections or forming partnerships with PACs; however, they may donate directly from their treasuries to Super PACs (OpenSecrets, n.d.). Companies are also permitted to have involvement in setting up PACs or assist in promoting them and these PACs are recognized as corporate ones by the Federal Election Commission (FEC, n.d.). Lobbyists on the other hand are professional advocates that are hired to represent the interests or positions of certain parties. They are allowed to communicate, advocate and help lawmakers with drafting legislation however, the hard line is that they are not allowed to buy votes. In spite of these rules, it was exposed by NPR (Chang, 2013) that politicians had submitted legislation in the House of Representatives that were nearly identical to the recommendations they were provided with by Citigroup

lobbyists and had even copied entire paragraphs word for word. The forms of corporate political activity which will be focused on in this paper are ones where companies can be directly involved in.

The US government regularly posts a wide variety of extensive financial information on their websites including a variety of disclosures which range from lobbying expenditures or lobbyist income statements to stock purchases made by American politicians and their relatives. They also have a website called the Federal Election Commission (FEC) which is dedicated to campaign contributions and data related to the financing behind political campaigns. Data on lobbying that will be used in this paper comes from a compilation of raw government corporate lobbying data that is published by OpenSecrets (opensecrets.org), which is a merger between the Center for Responsive Politics (CRP) and the National Institute on Money in Politics (NIMP). OpenSecrets has stringent protocols and procedures, and has a team in place which may contact the Senate Office of Public Records or the lobbying organisation if they find errors or mistakes in posted disclosures (OpenSecrets, n.d.). For other sorts of data on contributions and information regarding corporate PACs, the FEC will be utilised.

The remainder of this paper will be structured to firstly examine existing literature on corporate political activity and introduce a hypothesis. Thereafter data and methodology will be thoroughly discussed with an ensuing results section that will be compared to previous literature. Finally, conclusions will be presented, with a section for limitations and further research or suggestions.

2. Literature Review

There is a wide variety of academic literature on political topics such as lobbying however not many of them focus on examining the impacts of corporate political activity upon stock returns. Existing literature has a focus towards the lobbying of the US government as their data is most widely available and perhaps the most scrutinised as a result. Most of the existing literature do not consider the 2010s and after, with a focus being placed on the turn of the millennium instead. This section will be broken down to firstly consider existing academic literature before a conclusion which will include the hypotheses of this paper.

2.1 Existing Academic Literature on Corporate Political Activity

In a paper by Neretina (2019) titled “Lobbying Externalities and Competition”, the externalities generated by corporations lobbying the US government and impact of lobbying upon non-lobbying companies are investigated from 1996 to 2016. The author also discusses how, contrary to popular belief that majority companies are involved in lobbying and that this is an expensive activity, only 20% of listed firms partake in it and yearly lobbying expenditures of most listed firms are under \$4 million (Neretina, 2019). This group of relatively few lobbying companies are found to inflict negative externalities onto companies which do not lobby. Neretina (2019), had a focus on data from governmental websites such as the Senate Public Records, Library of Congress and the Center of Responsive Politics to create a dataset of lobbying activity and the bills that have been passed or worked on by lobbyists. 18,564 bills were introduced to the US House of Representatives during the time period examined and only 789 of them passed through the House, Senate and were approved by the President. Neretina (2019) had to determine which of the companies involved in lobbying the US government were publicly traded firms, which bills or pieces of legislation their lobbyists had been working on through use of Senate disclosures or CRP and who their competitors were (usually taken as other listed firms in the same industry) so that the impact of legislation on them could be analysed. A key discovery of this paper is that when a new bill is passed, non-lobbying firms in aggregate lose \$1.9 billion of their market value. In order to come to this conclusion, Neretina (2019) had to take an event study type of approach on the passage of legislation, considering stock returns (abnormal returns also) of firms around the time of legislation being passed as well as factors including length, importance and scope of legislation, financial characteristics of companies involved and the margin of votes above the majority required for passed bills. Legislation with slim margins above the majority required are expected to present

more of a surprise or shock for financial markets. Neretina (2019) finds that lobbying firms make gains of \$1.2 billion per piece of legislation (that is passed) under more advanced model specifications that take into account voting margins.

Whilst Neretina (2019) investigated financial gains of lobbying firms on the basis of legislation being passed, Borghesi & Chang (2014) investigated financial markets and the effect of lobbying activities on stock returns as well as volatility. The authors state that they must control for the characteristics that may differ between lobbying and non-lobbying firms, hence they introduce explanatory variables such as R&D expenditure, firm size and free cash flows. Like Neretina (2019), Borghesi & Chang (2014) obtain lobbying data from the CRP. Throughout the models in the paper, the authors use lobbying as an explanatory variable either in a log-form of expenditures or as a dummy variable in their OLS regressions. Borghesi & Chang (2014) investigated a total of around 4,000 companies, finding that between 9-13% of them were active in lobbying during 1999-2006. Borghesi & Chang (2014) also notice key differences between industries particularly with average lobbying expenditures, leading to the authors making adjustments for industry effects. Borghesi & Chang (2014) try to determine the likelihood that a firm partakes in lobbying and find that firms are more likely to lobby, if they have higher R&D/assets, a higher Tobin's Q and high institutional ownership (which happen to be larger firms). Firms are less likely to lobby if they have a higher ROA, more debt and operate in more competitive industries. The main findings of Borghesi & Chang (2014), is that lobbying the US government leads to positive excess returns when firms have low agency problems (dictated by the level of free cash flows) and R&D is high or when firms are part of R&D intensive industries. This finding points towards financial gains arising for firms involved in lobbying under a series of characteristics, whilst Neretina (2019) had determined that lobbying firms in totality made large gains on a per bill basis. Borghesi & Chang (2014) also attempted more advanced models with the introduction of a time lag of 1, 2 or 3 years for lobbying, as they state that lobbying expenditures may not have a direct or immediate impact on a firm's performance due to delays regarding legislation and before results can be seen. However, they concluded that there was no evidence that lobbying has an impact on risk-adjusted returns within the next 3 years.

Kim (2008) wrote a paper that is similar to Borghesi & Chang (2014), except that this paper would consider S&P 500 companies from 1998-2004 and their involvement in lobbying or Political Action Committees (PACs). This paper considers a structure conduct performance (SCP) paradigm, considering lobbying or contributions more from the perspective of individual

firms in respect to their products, services and industry. Kim (2008) states that lobbying data comes directly from the disclosure forms that are available at the US Senate whilst information on PACs and soft money contributions are collected from the Center for Responsive Politics. This is a different approach, as other papers heavily rely on the CRP for any sort of lobbying or PAC data. Kim (2008) follows the SCP framework by putting together a dataset which considers variables that detail industry structure, management incentives, a firm's need for protection and also include control variables like industry or number of employees. The political activity of a firm is measured by soft money contributions, PAC contributions and lobbying expenditures as logs. Kim (2008) found that in the years 1998-2004, lobbying expenditures generally are found to be considerably higher than campaign contributions made by a firm's PAC. Kim (2008) finds that firms that exist in more concentrated and regulated industries tend to be more active in lobbying and contributions to candidates. Furthermore, the results found suggest that lobbying may be more responsible for gaining political favours than campaign contributions. Kim (2008) finds that although lobbying firms tend to outperform the market average and to a lesser extent the average industry peer, GLS and EC2SLS regression results are found to be inconclusive regarding the impact of lobbying and contributions on returns.

Chen et al. (2015) wrote a similar paper to Kim (2008) in which they consider the impact of corporate political activity (through lobbying and PACs) upon a firm's financial performance. They also share the same finding that lobbying expenditures of corporations are higher than their PAC contributions. Chen et al. (2015) state their paper would make use of data available from the Lobbying Disclosures Act of 1995 and consider a time frame of 1998-2005 which is strategically placed before the financial crisis. The authors also make an interesting point that lobbying has a long history in the US and that it is protected by the American Constitution under the amendment for freedom of speech. Chen et al. (2015) hand match financial data of companies from Compustat and the Center for Research in Security Prices (CRSP) with CRP data on PACs, lobbying and soft money, pointing out that their data points are collected on a bi-annual basis. The authors find that whilst only 6.5% of Compustat companies lobbied in 1998, by 2005 this percentage had increased to 11.8%. This finding is similar to that of Borghesi & Chang (2014) who had considered a slightly different time frame of 1999-2006 instead of 1998-2005. Furthermore, Chen et al. (2015) makes the same finding as Kim (2008) that lobbying expenditures are much higher than contributions made by PACs and also find the same when comparing to soft money. In their models, Chen et al. (2015) consider variables

including assets, market to book ratios, industry fixed effects, past stock performance and lag their lobbying variable by a period of a year. The motivation behind lagging their lobbying variable revolves around the point that current expenditures may only impact financial performance down the line which is also stated by Borghesi & Chang (2014). The results generated by models from Chen et al. (2015) indicate that lobbying is related to increased financial performance of a firm and remains statistically significant under most of their models. However, the authors do not use stock returns as their measure of financial performance instead using income before extraordinary items, net income and cash from operations. Chen et al. (2015) then tests whether a portfolio of lobbying firms (based on their lobbying intensity) outperforms that of their non-lobbying counterparts and determine that the portfolio of firms with the highest lobbying intensity does indeed outperform the benchmark of non-lobbying firms.

In a paper by Borisov et al. (2016), the authors investigate whether corporate lobbying increases a firm's value on the stock market which is a similar goal as to Borghesi & Chang (2014), although this paper focuses on an exogenous shock which would have potentially limited a firm's ability to lobby. Borisov et al. (2016) state that from a theoretical standpoint, one of the main ways lobbying may add value to a firm is because it allows them to communicate specialised knowledge of certain issues to uninformed or perhaps overburdened politicians. Lobbying is viewed as not very favourable by the public and it is assumed that unethical methods are being used to sway or influence politicians. The authors consider an exogenous shock that could have limited the ability of firms to lobby, which took place on January 3rd, 2006 when a notable Washington DC lobbyist named "Jack Abramoff" pleaded guilty to bribing government officials. Borisov et al. (2016) state that this was a massive corruption scandal and created an environment of intense scrutiny over lobbying which made it damaging for policy makers to be associated with lobbyists. This would have hampered the activities of lobbyists and their access to politicians. As this particular event is exogenous to characteristics of firms and their previous lobbying decisions, the authors will revolve their investigation around the reaction of the stock market by considering S&P 500 companies to determine whether lobbying creates value. Borisov et al. (2016) argue that if lobbying does create value, there will be an expectation that firms that spend more heavily on lobbying will be subject to the bigger decrease of their market value due to lobbyists losing influence. The authors consider S&P 500 firms between 2000 and 2008, examining abnormal returns of firms in a 3-day window around the date of the guilty plea. Like in the previous papers that were examined the

authors use the CRP as their source for lobbying data and information. Borisov et al. (2016) are able to conclude firms that spend more on lobbying, exhibit significantly heavier losses in response to Jack Abramoff pleading guilty which supports the conclusion that lobbying does create value. For firms with positive lobbying activity, a one standard deviation increase of average lobbying expenditures (roughly \$6.8 million) in the previous year's leads to an average decrease of abnormal returns by 0.19% which translates to \$49.2 million in the 3-day window surrounding the event. Other key findings that Borisov et al. (2016) make is that firms who employ members of Abramoff's team experience greater decreases in values when the guilty plea was announced and when the authors repeat their models for the same 3-day windows except in different years they discovered no significant association between lobbying expenditures and market returns.

In a paper by Hill et al. (2013), the authors investigate the determinants and value effects of corporate lobbying whilst controlling for campaign contributions from corporate political action committees (PACs). This paper is similar to Kim (2008) due to the consideration of PACs which represents another way a company may seek to potentially influence politicians. Hill et al. (2013) discuss the fact that companies are not directly allowed to make contributions but may found PACs so their directors, employees and their respective families are able to contribute in order to support candidates in elections. This is in contrast to lobbying, where companies may directly spend funds and do so without any monetary limits. The authors also make the point that lobbying is a form of communication to politicians who are currently in office, whilst PAC campaign contributions are made prior to an election and therefore lobbying is a form of influence that is distinct from contributions. Hill et al. (2013) used lobbying and PAC data compiled by the CRP in their investigation and hand matched firms that existed on these datasets with companies on Compustat. Hill et al. (2013) make the same discovery regarding big differences in lobbying practices or trends across different industries just like in Borghesi & Chang (2014), leading to the inclusion of industry fixed effects in their models. Hill et al. (2013) are able to conclude that firms with higher possible gains resulting from favourable regulations are among the most active in lobbying with managers often employing both lobbying and campaign contribution channels to sway the political climate surrounding their firm. Furthermore, they also find strong evidence that shareholders value lobbying activity by management especially if there were no campaign contributions made towards candidates (by their PAC). Hill et al. (2013) also employ CAPM, Fama French 3 and Carhart 4 factor models with different portfolios having been formed based on levels of political activity. The

results originating from these models indicate the existence of positive abnormal returns linked to stocks of actively lobbying companies, surpassing the impact attributed to PAC campaign contributions.

Whilst other papers that were examined, took a look at lobbying from the standpoint of legislation passed or value creation, Blane et al. (2012) investigate lobbying with a focus on revolving door lobbyists and the value of having political connections between 1998 and 2008. Revolving door lobbyists are defined as former federal public employees who have since moved into lobbying. Blane et al. (2012) state that out of the top 50 Washington lobbyists, 34 were found to have previous federal experience. It is important to note that years later, Senator Elizabeth Warren would try to regulate and prevent more federal employees from becoming revolving door lobbyists which shows the relevance of this topic on Capitol Hill. Blane et al. (2012) try to understand the importance of having political connections as a lobbyist and the value that this could generate for clients of revolving door lobbyists. The authors investigate the extent to which former government officials are able to convert their political connections into revenue and use the Center of Responsive Politics for their compiled datasets of disclosures pertaining to revenues of lobbyists as well as several directories and databases for lobbyists as well as congressional staffers. Blane et al. (2012) discover that on average, 2.8 lobbyists are employed per private lobbying firm and generate yearly revenue of \$700,000. Revolving door lobbyists make up 41% of the total sample of lobbyists that were investigated. One of the key findings made by Blane et al. (2012) is that lobbyists who were previously connected to a US Senator (as a staffer for instance) suffer a 24% decrease in revenue when their previous employer leaves the Senate. This translates to a median revenue decrease for a revolving door lobbyist of around \$182,000 per year and the authors also state that they found evidence that former staffers are less likely to work as lobbyists if their former employer has left the Senate. Blane et al. (2012) conclude that their results show lobbyists which have a connection to an active Senator have a significant positive impact upon revenues and that political connections are extremely valuable for the lobbying industry.

2.2 Conclusion of Literature Review

Regulations or circumstances surrounding lobbying have changed drastically since the publication of many related papers that have been examined in this section. The Center of Responsive Politics (CRP) now exists under OpenSecrets.org and continues to make datasets with very in-depth compilations of data pertaining to lobbying, PACs and contributions. Disclosures on lobbying are published on a quarterly basis now instead of the bi-annual basis

that existed before 2011. It is important to note that disclosure forms filled out by lobbyists every quarter do not make it mandatory for lobbyists to disclose their assignments or bills that they had worked on, this is instead a voluntary addition to the required statement on payments per employer and is particularly relevant for any work considering legislation. Standpoints on legislation or exact actions taken by lobbyists are not published or included on disclosure forms as well. Information or data on corporate PACs that is compiled by OpenSecrets.org is almost identical to that the US Federal Election Commission publishes.

In this section, the academic papers that are considered mainly come to similar conclusions that being active in lobbying is financially valuable and can create value. Nerentina (2019) came to the conclusion that for every piece of legislation passed, lobbying firms make huge gains whilst non lobbying firms make even larger losses. Borghesi & Chang (2014) find positive excess returns when agency problems are low and R&D is high, with no evidence of time lags of 1-3 years leading to any impact on risk adjusted returns. Chen et al. (2015) make similar findings with their models showing that lobbying is related to financial performance of a firm as their lobbying variable is found to be significant. Borisov et al. (2016) and Kim (2008) both consider the S&P 500 in their investigations and obtain differing results. Kim (2008) finding inconclusive results as to whether lobbying and campaign contributions had an impact upon returns, whilst Borisov et al. (2016) concluded that lobbying creates value due to their finding that firms that spend more on lobbying exhibit significantly heavier losses during a 3-day window surrounding the date of a notable corruption case and never during other years.

In this paper, I will attempt to consider various forms of corporate political activity and its impact on stock returns of S&P 500 companies (individually) through the use of a panel regression. Whilst previous papers also consider the determinants of lobbying, a large majority of S&P 500 companies are anyways involved in lobbying and Borghesi & Chang (2014) found that larger firms are more likely to lobby when they consider the overall stock market. Kim (2008) also discovered that firm size has a positive significant effect on whether a firm has founded a PAC. Previous literature on the topic have tended to consider impacts of lobbying or other forms of corporate political activity through event studies and have had a general focus towards putting companies into 2 groups for lobbying and non-lobbying companies. However, it is important to note that there may be a need for a new category as companies may not lobby consistently throughout a year and instead do so on occasion instead. Papers that consider time periods before 2011 are also constrained to using semi-annual data points as filing disclosures on a quarterly basis were only implemented post-2011.

This paper will have 3 main hypotheses:

Hypothesis 1: *Corporate political activity has a positive significant relation with stock returns for S&P 500 companies*

Hypothesis 2: *Soft money contributions will generate higher positive returns than lobbying expenditure as it goes directly towards politics (through Super PACs)*

Hypothesis 3: *The size of a company (by market capitalization) will have a profound impact on the returns generated as a result of lobbying expenditures, with smaller S&P 500 companies gaining higher returns*

3. Methodology & Data

This section will describe how to acquire and compile data, the sources that will be used and the methodology that is used to conduct an investigation based on the research question. Firstly, the data sources will be outlined as well as the steps undertaken to construct the necessary dataset. Moreover, the methodology and path towards achieving results will be discussed.

3.1 Data Collection & Compilation

Lobbying data will be obtained from OpenSecrets.org (n.d) based on a S&P 500 constituents list of companies that have remained in the market index from the beginning of 2015 until the end of 2019. This time frame is selected strategically as it is placed after the financial crisis and European debt crisis whilst taking place before the outbreak of Covid-19 and another period of financial instability. The constituents list of companies that remained in the S&P 500 is compiled after downloading data from Datastream for the first trading day of 2015 and last trading day of 2019, then removing companies which do not exist in both. In order to investigate lobbying within S&P 500 companies and its impact on stock performance; it is important that the companies or constituents that are scrutinised do not change. This is done in order to prevent acquisitions, significant market capitalization changes (potential bankruptcies for example) and other factors from having any impact on results. The data pertaining to corporate political activity that will be downloaded and considered in this investigation will be extended back to include 2014 in order to facilitate the use of lagged variables whilst preserving a 5-year time frame. Table 1 shows the different variables that will be downloaded for the purposes of this study and the source that was used. The table also includes a description which may indicate if a variable is a dummy (PAC) or categorical one (Industry) and is supplemented by a calculation if applicable. This is subsequently followed up with an in-depth explanation of sources used as any changes or work that had to be done in order to put together a final dataset that could be used to generate results. All variables are downloaded or compiled in USD with no currency conversions having taken place. Excel will be used to compile data into a final dataset that will be used for regressions.

Table 1: Variables and data sources

Variable(s)	Description	Calculation (if applicable)	Source of Data	Subject to Possible Lag (start of 2014 instead of 2015)
<i>Returns</i>	Quarterly returns of a company	Stock price at t+1 / Stock price at t	Datastream	Yes (as an independent variable)
<i>Lobbying</i>	Quarterly lobbying expenditures of a company		OpenSecrets	Yes
<i>Soft</i>	Quarterly Soft Money contributions of a company		FEC	Yes
<i>PAC</i>	A dummy indicating if a company has a PAC		FEC	No
<i>EPS</i>	Quarterly earnings per share		Compustat/CRSP	No
<i>Mcap</i>	Market capitalisation		Compustat/CRSP	No
<i>Lev</i>	Leverage %	Total debt / Total assets	Compustat/CRSP	No
<i>R&D</i>	Research and development expense		Compustat/CRSP	No
<i>Industry</i>	ICB Industry Code Categorical variable		Datastream	No
<i>Rm-Rf, SMB, HML, RMW, CMA</i>	A selection of variables from the 5 Factor Asset Pricing Model (Fama French)		Dartmouth Ken French Data Library	No

Notes: Overview of variable definitions, construction method (with possible calculation), and sources for variables of interest and whether a variable may be lagged. Fama French Factors include *Rm-Rf, SMB, HML, RMW, CMA*.

After combing through several databases for financial data relating to stock prices, Datastream was found as the most accurate and comprehensive when it came to security prices which were then used to generate quarterly returns. Whilst Datastream was unable to give satisfactory EPS figures or R&D it was able to supply ICB industry codes as well as other stock identifiers such as CUSIP, ISIN, CIK codes which would be needed when browsing through other databases. For other financial data such as EPS, R&D expenditure, Total Assets, Total Liabilities and Market Capitalization, the merged Compustat/CRSP database was used. Fama French variables will be downloaded from the Ken French data library and adjusted to fit a quarterly horizon

instead of monthly. After starting with a list of 398 companies that remained in the S&P 500 during the time frame considered, a further 7 were removed due to missing data or being non-existent according to Compustat/CRSP. This left 391 companies in the sample, for which to continue collecting data on and put into a panel data format.

For data related to lobbying; OpenSecrets.org was chosen over the Senate disclosures site due to the fact that OpenSecrets is able to take large amounts of disclosures and compile this data together into favourable formats. Lobbying data of companies or other organisations that is available on OpenSecrets.org is sorted in numerous ways such as by industry, amount of spending and foreign entities, but do not separate listed companies or organisations from private ones. This data also does not consider any sort of firm identifier such as stock symbol, ISIN, CUSIP codes which means it has to be manually matched with a list of stocks. In order to put together data on lobbying activities on the 391 companies considered, it was necessary to repeatedly search OpenSecrets.org and hand match firms by their names.

If a company has at any point been involved in lobbying from the 1990s onwards, OpenSecrets has a page for them as well as a graph which shows lobbying expenditure over time on a bar chart representing yearly and quarterly spending with an overlying trendline to depict the number of lobbyists employed. An Excel sheet can be downloaded from this page which contains quarterly lobbying expenditures for the years after 2011 (before 2011 there were only mid and end year data points) and number of lobbyists employed on a yearly basis. If a company spends more on lobbying, they can hire more lobbyists. This consideration, in addition to the fact that number of lobbyists has not been used as a variable in previous literature, stipulates that only lobbying expenditures will be used as a metric or variable representing lobbying, especially in light of multicollinearity concerns. If the company in question has subsidiaries which are involved in lobbying, their lobbying expenditure is compiled together with that of the parent or main corporation. This means that for some companies that have been acquired, merged or undergone significant changes, OpenSecrets data cannot be used as expenditures of subsidiaries cannot be found separated from the parent organisation in majority of occasions and lobbying data will be collected by combing through disclosures on the Senate website. Whilst searching through OpenSecrets, it was also imperative to go back to the Senate disclosures website to double check expenditures in the case that a company exhibited peculiar spending patterns, had a different name or multiple pages listed on OpenSecrets in order to determine which figure to use.

The last part to consider with lobbying data is the rules and regulations in place, as well as possible alterations that need to be done to data downloaded from OpenSecrets or manually compiled from the Senate disclosures site. Lobbying rules are known to be subject to changes especially as time passes. Borghesi & Chang (2014), state that organisations must disclose lobbying expenditures if they spend more than \$20,000 per half year. This follows the framework and rules for disclosures from before 2011 where lobbying expenditures are only disclosed on a half year basis. Current rules are significantly different and require quarterly reporting which must be disclosed within 20 days from the end of a quarter (OpenSecrets, n.d.). Rules for organisations spending money on lobbying are drastically different to those for lobbyists or lobbying firms. From 2011-2021, organisations must disclose lobbying expenditures if an organisation spends more than \$12,500 per quarter (including internal and external lobbying costs). OpenSecrets (n.d.) states under their methodology that organisations with lobbying expenditures below \$12,500 are not taken into account in their data and considered as 0. However, in some cases there were companies included which had spent amounts under \$12,500 in certain quarters and these were subsequently corrected to reflect 0. Disclosures can contain the bills and legislation that have been worked on by lobbyists however this is only optional and may not give much of an understanding to what activities or stances were undertaken. Lastly it is important to note that the general rules of Senate disclosures for lobbying state that entities must provide estimates of their income or expenditures in good faith with rounding rules generally allowing rounding of expenditures to the nearest \$10,000 (US House of Representatives, 2021).

The next site that needs to be accessed is the Federal Election Commission which is an official US government site that tracks campaign contributions and the finances behind lobbying. Whilst previous papers that considered PACs were able to use the CRP for their datasets, current data provided by OpenSecrets.org is nearly identical to data on the Federal Election Commission site and more difficult to comb through. Data on PACs is collected and published on the basis of an election cycle which is every 2 years. This also means that frequency of data points is significantly different to that of lobbying. The main purpose of combing through corporate PACs is to find out which companies are affiliated with or have founded their own PAC as well as whether their PACs are actively making contributions. The particular PAC database that is used will be the one for corporate ones and once again searching through this database will have to be a manual process in order to find which of the 391 companies have a PAC and during which election cycle. The data points collected on PACs will be used to

construct a dummy variable in regressions to indicate whether a company has an active PAC during a particular quarter.

Staying on the Federal Election Commission site, the next point to collect data on was soft money contributions. These contributions can be made by a company directly to a Super PAC and are considered less restrictive. Contributions by partnerships can be made to Party Committees and in certain cases LLCs can be considered as a partnership (FEC, n.d.). Whilst normal PACs may have more restrictions and are allowed to give money to candidates, Super PACs can raise unlimited amounts of money and are not allowed to give money to a candidate but they can advocate for or against them (OpenSecrets, n.d.). Corporations are of course barred from making contributions in connection to federal elections. The FEC site will be manually searched through with a different set of filters to identify soft money spending. Many companies have to report their transactions with Super PACs and Party Committees due to the fact they do business with them and therefore a minimum transaction filter of \$10,000 is used. This will remove most of the transactions which are just for business purposes although individual transaction filings will be opened to confirm that there is no note attached indicating this is a payment or reimbursement. Soft money contributions will be treated similarly to lobbying expenses, with transaction dates being accounted for so that data will be compiled to reflect quarterly expenditures (contributions).

3.2 Key Variables of Interest

This section will discuss the variables introduced as well as the reasoning and relevancy for predicting stock returns. Corporate political activity is at the center of my investigation, with hypotheses which predict a significant positive impact upon the dependent variable which is stock returns of a given company. There are 3 explanatory variables which fall under the scope of corporate political activity and 6 control variables which can be applied.

Returns is the dependent variable which will be what all other variables attempt to explain. Stock returns is a common form of measuring financial performance and is calculated by taking the current stock price and dividing it by the stock price of the last period, then subtracting 1.

Lobbying represents the quarterly lobbying expenditures of a company and this variable will be subject to lags ranging from 1 to 4 quarters. Chen et al. (2015) and Borghesi & Chang (2014) both stated that lobbying expenditures may only lead to financial returns in the future due to delays in the legislative system or process. Borghesi & Chang (2014) found that when their lobbying variable was lagged by 1, 2 and 3 years there was no evidence of an impact on risk-

adjusted returns was found and therefore the lags considered in this paper will be a maximum of 1 year (4 quarters).

Soft represents the quarterly soft money contribution expenditures of a company and this variable will be treated similarly to *Lobbying*. Soft money contributions are included in papers by Kim (2008) and Chen et al. (2015) as this is an important aspect to corporate political activity although there is a clear focus towards lobbying.

PAC is a dummy which dictates if a company has a corporate PAC during a given period. If a company has a PAC it will take a value of 1 and 0 if this is not the case. Kim (2008), Hill et al. (2013) and Chen et al. (2015) consider contributions of corporate PACs. Kim (2008) determined that expenditures of a corporate PAC were found to be considerably lower than the lobbying expenditures of the same company. Hill et al. (2013) found positive abnormal returns linked to stocks of actively lobbying companies which surpassed the impact attributed to corporate PAC contributions. Hill et al. (2013) also stated that companies could not make contributions (through a corporate PAC) which is why this investigation will not consider PAC contributions.

3.3 Control Variables

Returns_{t-4} will be used as a lagged variable as it shows past performance and relates to the idea of a momentum factor. Jegadeesh & Titman (1993) find evidence supporting the existence of this anomaly with stocks showing strong past performance continuing to outperform stocks with poor past performance. The most successful zero-cost strategy selected stocks based on their returns over the previous 12 months prior to holding them (for 3 months) and therefore a lag of 12 months will be applied to Returns.

EPS is the earnings per share of a company on a quarterly basis. This variable is important in indicating whether the company is profitable and this may have an impact on the degree of corporate political activities a company can engage in. Earnings per share is also significantly related to the stock price or value of a company (King & Langli, 1998; Chang et al., 2008) which suggests it may explain returns in this paper.

Mcap represents market capitalization of a company on a quarterly basis. Controlling for the size of a company is an important consideration and Chen et al. (2015) considered market capitalization whilst Borghesi & Chang (2014) used other measures such as assets. Kim (2008) considered various size proxies and stated the importance of controlling for the size of a firm

due to the fact that larger firms may have more resources which can allow them to hire better lobbyists or employ a team of them.

Lev represents a ratio of total liabilities to total assets during a particular quarter. Borghesi & Chang (2014) include debt to assets as an explanatory variable in their models, stating that firms with higher levels of debt may be more constrained with their spending. This means firms with a higher liabilities to assets ratio might not spend much on lobbying compared to a company with far more assets than liabilities. Higher leverage also increases the risk of default, the cost of borrowing and other costs related to financial distress which can impact returns negatively (Atlman & Hotchkiss, 1993).

R&D is the variable for R&D expenses on a quarterly basis. Borghesi & Chang (2014) explain that firms with higher R&D expenditure may seek to protect their sunk costs and influence legislation in their favour by preventing potential competitors from entering their industry for example.

Industry is a categorical variable using the ICB Industry code. There are a total of 11 industries according to the base classification which is used. Borghesi & Chang (2014) incorporated industry effects due to their finding that companies in different industries were significantly different judging by various factors including lobbying expenditures. Kim (2008) further supports this by mentioning that firms in expanding industries may behave differently (from a lobbying standpoint) because potential entrants may cause free-riding problems.

Lastly, Fama French variables from their 5-factor asset pricing model will be included in my investigation. These factors are included to improve the fit of the model and are a key part of economic theory pertaining to asset pricing. The 5-factor model builds upon the 3-factor model, capturing the effect of size, profitability, investment patterns (Fama & French, 2015).

3.4 Variable Characteristics

After creating a dataset for corporate political activity, it is possible to inspect the data in order to look for key characteristics or trends. Table 2 summarizes data on lobbying expenditures, soft money and PAC ownership with an emphasis on average expenditures per quarter as well as the number of companies involved in a particular form of corporate political activity. The number of lobbying companies stays relatively the same during 2014-2019 with numbers rising slightly (in general) to reach the maximum in Q4 2019 of 306. This shows that the majority of S&P 500 companies do in fact lobby. Only 60 out of 391 companies never lobby during the time period considered. Column 3, which represents average lobbying expenditure depicts an

interesting trend of average expenditure being highest in Q1 of every year considered. This table also shows that there is far more money and activity in lobbying than soft money contributions. There are 7,106 observations of non-zero lobbying expenditure out of 9,834 total observations. Corporate political activity is at the center of my investigation, with hypotheses which predict a significant positive impact upon my dependent variable (stock returns). There are 3 variables which fall under the scope of corporate political activity: Lobbying Expenditure, Soft Money Contributions and a PAC dummy which dictates if a company has a corporate PAC. Whilst majority of companies spending money on lobbying (at some point from 2014-2019), there are only 107 observations of companies spending money on making soft money contributions. It is also possible to point out that average quarterly expenditure on soft money contributions ranges from 0-11,573 USD whilst for lobbying it ranges from 422,830-550,051 USD. There were 2 quarters observed where no S&P 500 companies made soft money contributions. The last column which contains numbers of companies with a corporate PAC rarely fluctuates and only does so at the start of an election cycle (Q1 2015 and Q1 2017) due to the low frequency of data for the existence or registration of corporate PACs. In Q1 of 2014, 250 companies have a corporate PAC whilst in Q4 2019 that number has increased to 256. This variable is one that barely exhibits change with most firms staying consistent with whether they have a PAC or not throughout the time period considered. Only 22 firms fall into a midground of having a corporate PAC but not for the entirety of the period investigated.

Table 2: Summary Statistics on Corporate Political Activity

Time (Q)	# of Lobbying Companies	Average \$ Spend Lobbying	# of Soft Money Contributors	Average \$ Spend Soft Money	# of Companies with a PAC
<i>Q1 2014</i>	287	519,819	0	0	250
<i>Q2 2014</i>	287	459,109	3	77	250
<i>Q3 2014</i>	291	448,255	7	6,010	250
<i>Q4 2014</i>	292	479,827	4	102	250
<i>Q1 2015</i>	294	550,051	1	2,621	253
<i>Q2 2015</i>	298	500,835	4	1,330	253
<i>Q3 2015</i>	294	445,833	3	4,551	253
<i>Q4 2015</i>	294	473,999	5	128	253
<i>Q1 2016</i>	297	508,503	7	5,921	253
<i>Q2 2016</i>	292	443,700	11	1,662	253
<i>Q3 2016</i>	293	422,830	11	2,353	253
<i>Q4 2016</i>	292	438,844	5	2,199	253
<i>Q1 2017</i>	294	547,423	9	4,143	256
<i>Q2 2017</i>	299	467,518	2	1,151	256
<i>Q3 2017</i>	297	443,187	3	3,453	256
<i>Q4 2017</i>	300	488,116	1	767	256
<i>Q1 2018</i>	299	566,962	5	11,573	256
<i>Q2 2018</i>	302	470,532	3	5,499	256
<i>Q3 2018</i>	300	452,559	3	2,813	256
<i>Q4 2018</i>	299	463,775	8	5,448	256
<i>Q1 2019</i>	297	546,357	0	0	256
<i>Q2 2019</i>	300	479,871	4	1,630	256
<i>Q3 2019</i>	302	455,931	2	665	256
<i>Q4 2019</i>	306	471,364	6	4,028	256

Notes: Total amount of companies is 391, lobbying and soft money are denoted in USD

Table A1 displays data related to corporate political activity as well as financial statistics by industry group. This data is further explored in A2 and A3, separating companies that lobby and those who never lobby during the time period considered. There are clear differences between the average values of variables considered across 11 ICB industries in Table A1. Although there are just 6 companies in the Telecommunications industry, these companies have the highest average lobbying spend and market capitalization. The average firm in Technology and Telecommunications are worth several times more than ones in Real Estate, Utilities and Basic Materials. Firms in the Real Estate industry spent by far the least on lobbying and none of the firms in Basic Materials made soft money contributions. The average value for the PAC variable for the Utilities industry is 1 which means that every company had a corporate PAC for the entirety 2014-2019 and the lowest average value belongs to Real Estate with 0.1. There are 0 observations of quarters with no lobbying for the Utilities industry which means that every single company lobbied throughout the entire period. The Energy industry had the

highest average soft money contribution at \$35,362 with 38 observations of quarterly contributions with Utilities coming in second at \$8,229 with 31 observations. Moving onto Table A2 and A3, lobbying firms generally seem to be larger (*Mcap*), spend far more via Soft Money contributions (non-lobbyists firms have one observations of quarterly soft money contributions) and are more likely to have a corporate PAC. There are also 3 industries where there are no non-lobbyists which means that every firm in Telecommunications, Consumer Staples and Utilities lobbied for at least one quarter. Average returns are higher for 4 out of the 8 industries that exist in the non-lobbyist table compared to their lobbying counterparts.

3.5 Empirical Methodology

A few different models will be utilised in order to construct results and this section intends to examine different types of regressions, the variables included and other important considerations. All models will include the same control variables for company factors that might play a role in a company's involvement in corporate political activity and their returns. The only variables which may not remain constant throughout are those dedicated to corporate political activity as lags up to 4 quarters will be applied to them. Due to the non-negative nature of lobbying expenditures and soft money contributions as well as their distribution, they will be taken as natural logarithms. STATA will be used to perform fixed effects panel regressions using the constructed dataset in order to determine the relationship between corporate political activity, other explanatory/control variables and the quarterly stock returns. To mitigate the possibility of autocorrelation in the sample, standard errors will be clustered at firm and quarter (year). Thompson (2011) states errors may exhibit firm and time effects when conducting panel regressions. Furthermore, Thompson (2011) also discusses potential common shocks and allowing for some correlation between firms however it falls short of making a strict overall push for clustering at industry level.

$$Returns_t = \alpha_0 + \beta_1 Lobbying_{t-x} + \beta_2 Soft_{t-x} + \beta_3 PAC_t + \sum Controls_t + \sum Industry_i + \epsilon_{i,t} \quad (1)$$

The next 2 iterations will build upon the initial model and consider interaction effects. Lobbying expenditures can differ due to the size of companies as companies of a larger size may have more resources behind them and therefore able to contract more or better lobbyists for instance (Borghesi & Chang, 2014; Kim, 2008). The measure of a company's size in this paper is market capitalization and this measure was also chosen by Chen et al., (2015). Equation 2 has been crafted to consider an interaction effect between lobbying expenditures and the

market capitalization of a company. Market capitalization (*Mcap*) is used as a control variable in every iteration of models used in this paper.

$$\mathbf{Returns}_t = \alpha 0 + \beta_1 \mathbf{Lobbying}_{t-x} + \beta_2 \mathbf{Lobbying}_{t-x} * \mathbf{Mcap} + \beta_3 \mathbf{Soft}_{t-x} + \beta_4 \mathbf{PAC}_t + \sum \mathbf{Controls}_t + \sum \mathbf{Industry}_i + \varepsilon_{i,t} \quad (2)$$

Equation 3 will consider an interaction term between Lobbying and Industry. The industry variable is a categorical variable based on the ICB Industry code with 11 different industries. Existing academic literature has highlighted that firms in different industries behave differently with regards to corporate political activity (Kim, 2008; Borghesi & Chang, 2014) and the inclusion of an interaction effect will seek to determine if lobbying is more effective for firms within certain industries.

$$\mathbf{Returns}_t = \alpha 0 + \beta_1 \mathbf{Lobbying}_{t-x} + \beta_2 \mathbf{Lobbying}_{t-x} * \mathbf{Industry} + \beta_3 \mathbf{Soft}_{t-x} + \beta_4 \mathbf{PAC}_t + \sum \mathbf{Controls}_t + \sum \mathbf{Industry}_i + \varepsilon_{i,t} \quad (3)$$

The 3 models introduced will attempt to provide a conclusive answer to the hypotheses investigated in this paper. Equation 2 in particular aims to give a clear answer to Hypothesis 3 and determine whether or not larger companies do indeed gain more positive returns from lobbying expenditures.

4. Results

This section will discuss and outline the empirical results from fixed effects panel regressions for the model specifications listed in the previous section. The relationship between corporate political activity and stock returns will be scrutinised with regards to the Hypotheses of this study. Lastly, this section will seek to compare the results gathered from this paper to results of previous academic literature.

4.1 Corporate Political Activity and Stock Returns

Table 3 shows the results of a fixed effect panel regression using Equation 1 (the base model) under multiple lags to variables for *Lobbying* and *Soft*. All models used throughout this study will consider 3 log transformed independent variables which are *Lobbying*, *Soft Money* and *Mcap*. The base iteration of the model, shown in Table 3, may be able to provide an answer to whether Hypothesis 1 and 2 can be accepted. Lobbying expenditures of a company are linked to negative returns which are statistically significant at a 5% level, whilst regression 5 shows that *Lobbying* is significant at 1%. The coefficients for *Lobbying* display consistency as they are the same across the 5 regressions in Table 3 and indicate that a 1% increase in lobbying expenditure translates to a decrease in a company's quarterly stock returns by 0.1 basis points. Soft Money Contributions of a company only have a positive significant impact at a lag of 3 quarters and it has a negative significant impact at a lag of 2 quarters. At a lag of 2 quarters a 1% increase of *Soft* leads to a decrease in stock returns by 0.2 basis points which is double the magnitude of *Lobbying*. Soft Money Contributions are only observed upon 107 occasions which is a rare occurrence when compared to lobbying. The *Soft* variable under the base iteration of the model does not show much consistency, there is not much that can be interpreted from the variable. However, it can be said that the results somewhat support Hypothesis 2 as *Lobbying* never appears positive and more so when the model at a 3-quarter lag for *Lobbying* and *Soft* is the only one considered (regression 4). The dummy variable *PAC* always keeps a negative sign and only becomes significant at a lag of 3 quarters. Companies that have a corporate PAC are expected to lose 60 basis points of their returns (per quarter) compared to those who do not have a PAC. These results do not support Hypothesis 1 as corporate political activity show a general negative impact upon returns with the exception of Soft Money contributions at a lag of 3 quarters.

Table 3: Panel regressions corporate political activity on stock market returns (1)

	(1)	(2)	(3)	(4)	(5)
	<i>Returns</i> <i>x=0</i>	<i>Returns</i> <i>x=1</i>	<i>Returns</i> <i>x=2</i>	<i>Returns</i> <i>x=3</i>	<i>Returns</i> <i>x=4</i>
<i>Lobbying</i> , <i>t-x</i>	-.001** (.000)	-.001** (.000)	-.001** (.000)	-.001** (.000)	-.001*** (.000)
<i>Soft</i> , <i>t-x</i>	.003 (.001)	-.001 (.001)	-.002** (.001)	.002* (.001)	.000 (.001)
<i>PAC</i> , <i>t</i>	-.005 (.003)	-.005 (.003)	-.005 (.004)	-.006* (.004)	-.005 (.003)
<i>Returns</i> , <i>t-4</i>	-.06* (0.03)	-.06* (.029)	-.06* (.029)	-.06* (.03)	-.06* (.03)
<i>EPS</i> , <i>t</i>	.001 (.001)	.001 (.001)	.001 (.001)	.001 (.001)	.001 (.001)
<i>Mcap</i> , <i>t</i>	.014*** (.003)	.014*** (.003)	.014*** (.003)	.014*** (.003)	.014*** (.003)
<i>Lev</i> , <i>t</i>	.004 (.008)	.003 (.008)	.003 (.008)	.003 (.008)	.004 (.008)
<i>R&D</i> , <i>t</i>	-.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Constant	-.131*** (.027)	-.132*** (.028)	-.133*** (.027)	-.128*** (.027)	-.133*** (.028)
Observations	7,811	7,811	7,811	7,811	7,811
R-squared	.231	.231	.231	.231	.231
Fama French variables	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes

Notes: Results of the fixed effects panel regression of stock returns regressed on the natural logarithm of Lobbying, Soft and other controls in regressions one to five. Regressions two to five consider quarterly lags to Lobbying and Soft denoted by x. Robust standard errors, clustered at a firm and quarterly level are shown in parentheses *** $p < .01$, ** $p < .05$, * $p < .1$

Whilst some of the corporate political activity variables were not very consistent in terms of magnitude or p-value, there are some interesting takeaways from *Mcap* and *Returns*, *t-4* which are both significant in Table 3. The *Mcap* variable is a log transformed control representing market capitalization and is used in this paper as a measure of company size. The results indicate that company size has a positive and significant impact at a 1% level. For every percentage increase in a company's market capitalization, their returns increase by 1.4 basis points. This shows that larger companies exhibit greater returns and this will be further investigated with regards to lobbying in subsequent iteration of the model. *Returns*, *t-4* represents a company's stock returns from 4 quarters ago and is inspired by literature by Jegadeesh & Titman (1993) on momentum. The variable is significant at a level of 10%, displaying a negative sign translating to a negative impact on a company's stock returns if they were positive 4 quarters ago and if a company's returns from 4 quarters ago negative this would cancel out becoming positive. The coefficient is small; however, it still suggests that companies with historical negative returns will generate higher returns a year in the future.

Although *R&D* was a variable included in previous work by Borghesi & Chang (2014) as they stated that firms with higher R&D costs may seek to protect their sunk costs and influence legislation in their favour, the variable shows an extremely small value that is insignificant. R&D expenditures has a very small negative effect when there is no lag applied to key variables however is rounded to 0 in all other instances. Although *Lev* and *EPS* display small positive coefficients, there is nothing to interpret as they are not significant. Lastly, Fama French variables were included for fit and show towards the bottom of the table with a row that indicates ‘Yes’ as they were included every time a regression was run.

To examine the robustness of results, Table 3 is presented with the base model under 5 different scenarios for lag with x being equal to 0-5 to signify quarters lagged for *Lobbying* and *Soft*. This practice will be continued in further iterations and will be of value in comparing between lags to examine the consistency of results. Another consideration when examining the robustness of results is to further investigate key control variables from the model as interaction effects. This is done to see whether results repeat themselves or whether there is any clear difference which is of interest. Industry is used as a fixed effect in all model iterations and will also be examined as an interaction effect in section 4.3 whilst Market Capitalization is investigated as in section 4.2.

4.2 Interaction Effects Market Capitalization and Lobbying

Table 4 shows the results of a fixed effects panel regression under Equation 2 which builds upon the base iteration discussed in section 4.1 by adding an interaction effect between *Lobbying* and *Mcap*. The variables that are lagged are the same in the base model (*Lobbying* and *Soft*) and importantly the interaction effect is denoted as $Lobbying_{t-x} * Mcap_{t}$. This means that the lag is applied to the interaction term as well via the variable for Lobbying Expenditures and also as a standalone variable. The interaction effect is significant at a level of 1% for all lags considered (regressions 1-5) with a small negative coefficient. This indicates that when lobbying expenditures are kept constant, smaller companies generate higher quarterly returns than larger companies. Therefore, there is also a significant relationship between lobbying and company size even though the companies considered in this study are all already part of the S&P 500, among the biggest in the world. Hypothesis 3 should not be rejected as the results do indeed show that smaller S&P 500 companies generate higher returns as a result of lobbying expenditures. *Mcap* is still positive and significant, with its magnitude increasing compared to in Table 3. In combination with previous discussions on this variable, this may signify that

bigger companies already make larger returns and therefore stand to gain less from being involved in lobbying than smaller ones in the S&P 500.

An important difference between Table 3 and Table 4 is that after including an interaction term, *Lobbying* has a positive coefficient and is significant at 1% at every lag included. This is drastically different from the results derived from the base iteration of the model. *Lobbying* had a negative sign and was significant at 5% with the exception of when it was lagged by 4 quarters in regression 5 and significant at 1%. The coefficient of *Lobbying* in Table 4 can be interpreted as an increase in quarterly stock returns by 1.4 (in regressions 1, 2, 3, 5) or 1.5 (in regression 4) basis points for a 1% increase in lobbying expenditures. The results displayed for corporate political activity variables are more in line with expectations and support the acceptance of Hypothesis 1. There is also more of a strong basis to reject Hypothesis 2 after looking at Table 4. This is due to the fact that *Soft* has not exhibited change similar to that of *Lobbying* and still shows significant results only at 2 and 3 quarters lagged with one of those coefficients being positive and the other being negative. The positive coefficient is yet again exhibited at a lag of 3 quarters and has a far smaller magnitude to that of *Lobbying*. It does not seem that soft money contributions have the impact that was expected and the effect of this variable seems to be fairly inconclusive. The *PAC* variable is now insignificant under all lags considered and therefore cannot be properly interpreted. There is no plausible impact of this variable upon stock returns although it has a small negative sign.

Table 4: Panel regressions corporate political activity on stock market returns with interaction effect between lobbying expenditures and market capitalization (2)

	(1)	(2)	(3)	(4)	(5)
	<i>Returns</i> <i>x=0</i>	<i>Returns</i> <i>x=1</i>	<i>Returns</i> <i>x=2</i>	<i>Returns</i> <i>x=3</i>	<i>Returns</i> <i>x=4</i>
<i>Lobbying</i> , <i>t-x</i>	.014*** (.005)	.014*** (.004)	.014*** (.005)	.015*** (.004)	.014*** (.005)
<i>Soft</i> , <i>t-x</i>	.001 (.001)	.000 (.001)	-.001* (.001)	.002** (.001)	.000 (.001)
<i>PAC</i> , <i>t</i>	-.004 (.003)	-.004 (.003)	-.004 (.004)	-.005 (.004)	-.004 (.003)
<i>Lobbying</i> , <i>t-x</i> * <i>Mcap</i> , <i>t</i>	-.002*** (.000)	-.002*** (.000)	-.002*** (.000)	-.002*** (.000)	-.002*** (.000)
<i>Returns</i> , <i>t-4</i>	-.062** (.029)	-.062** (.029)	-.062** (.029)	-.063** (.029)	-.062** (.029)
<i>EPS</i> , <i>t</i>	.001 (.001)	.001 (.001)	.001 (.001)	.001 (.001)	.001 (.001)
<i>Mcap</i> , <i>t</i>	.032*** (.006)	.032*** (.006)	.031*** (.006)	.032*** (.006)	.032*** (.006)
<i>Lev</i> , <i>t</i>	.004 (.007)	.003 (.008)	.003 (.008)	.003 (.008)	.004 (.008)
<i>R&D</i> , <i>t</i>	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)	.000 (.000)
Constant	-.307*** (.057)	-.301*** (.056)	-.299*** (.056)	-.306*** (.057)	-.3*** (.055)
Observations	7811	7811	7811	7811	7811
R-squared	.234	.234	.234	.234	.234
Fama French variables	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes

*Notes: Results of the fixed effects panel regression of stock returns regressed on the natural logarithm of Lobbying and Soft for total emissions in regressions one to five. Regressions two to five consider quarterly lags to Lobbying and Soft. An interaction effect between Lobbying and Mcap is included. Robust standard errors, clustered at a firm and quarterly level are shown in parentheses *** $p < .01$, ** $p < .05$, * $p < .1$*

When it comes to the control variables, the results mainly stay unchanged from Table 3. *Mcap* and *Returns*, *t-4* are still significant at the same levels as previously with *Mcap* gaining a more positive relationship with returns and *Returns*, *t-4* gaining a more negative relationship comparatively. Positive historical returns from 4 quarters ago are linked to slightly more negative stock returns than previously discovered.

4.3 Interaction Effects Industry and Lobbying

Table 5 shows the results of a fixed effects panel regression under Equation 3 which builds upon the base iteration discussed in section 4.1 by adding an interaction effect between *Lobbying* and *Industry* which is a categorical variable.

Table 5: Panel regressions corporate political activity on stock market returns with interaction effect between lobbying expenditures and market capitalization (3)

	(1)	(2)	(3)	(4)	(5)
	Returns	Returns	Returns	Returns	Returns
	x=0	x=1	x=2	x=3	x=4
Lobbying_{t-x}	-0.002**	-0.002**	-0.002**	-0.002*	-0.002**
	(.001)	(.001)	(.001)	(.001)	(.001)
Soft_{t-x}	.000	-.001	-.002**	.002	.000
	(.001)	(.001)	(.001)	(.001)	(.001)
PAC_t	-.004	-.004	-.005	-.006	-.004
	(.004)	(.004)	(.004)	(.004)	(.004)
Lobbying_{t-x} * Industry					
Telecommunications	-.002	-.001	-.001	.000	-.001
	(.001)	(.001)	(.002)	(.002)	(.002)
Health Care	.001	.001	.001	.001	.000
	(.001)	(.001)	(.001)	(.001)	(.001)
Financials	.000	.001	.000	.001	.000
	(.001)	(.001)	(.001)	(.001)	(.001)
Real Estate	.002*	.002*	.002	.001	.002
	(.001)	(.001)	(.001)	(.001)	(.001)
Consumer Discretionary	.002	.002*	.001	.002*	.002*
	(.001)	(.001)	(.001)	(.001)	(.001)
Consumer Staples	.000	.000	-.001	-.001	-.001
	(.002)	(.001)	(.001)	(.001)	(.001)
Industrials	.001	.001	.001	.001	.001
	(.001)	(.001)	(.001)	(.001)	(.001)
Basic Materials	.001	.000	.001	.001	.000
	(.001)	(.001)	(.001)	(.001)	(.002)
Energy	.001	.002*	.002	.001	.002
	(.001)	(.001)	(.001)	(.001)	(.001)
Utilities	-.007***	-.006**	-.007***	-.007**	-.005**
	(.002)	(.003)	(.002)	(.003)	(.002)
Returns_{t-4}	-.061*	-.061***	-.061*	-.061*	-.061*
	(.03)	(.012)	(.03)	(.03)	(.03)
EPS_t	.001	.001*	.001	.001	.001
	(.001)	(.001)	(.001)	(.001)	(.001)
Mcap_t	.015***	.015***	.015***	.014***	.015***
	(.003)	(.002)	(.003)	(.003)	(.003)
Lev_t	.003	.003	.003	.002	.003
	(.008)	(.007)	(.008)	(.008)	(.008)
R&D_t	.000	.000	.000	.000	.000
	(.000)	(.000)	(.000)	(.000)	(.000)
Constant	-.131***	-.131***	-.132***	-.127***	-.133***
	(.028)	(.016)	(.028)	(.029)	(.028)
Observations	7811	7811	7811	7811	7811
R-squared	.232	.233	.233	.232	.233
Fama French variables	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes

Notes: Results of the fixed effects panel regression of stock returns regressed on the natural logarithm of Lobbying and Soft in regressions one to five. Regressions two to five consider quarterly lags to Lobbying and Soft. An interaction effect between Lobbying and Industry is included. The reference category that is not shown in the Table is Technology. Robust standard errors, clustered at a firm and quarterly level (except in 2 where standard errors are clustered at firm level) are shown in parentheses *** p<.01, ** p<.05, * p<.1

There are 11 industries considered in this paper and applied to the dataset of S&P 500 companies. Names of industries are not in bold like other variables in Table 5 for visualisation purposes. $Lobbying_{t-x} * Industry$ denotes the interaction effect and the reference category which is not shown in regression outputs is Technology. The coefficients presented for industries starting from Telecommunications to Utilities represent a deviation of quarterly returns (by increasing lobbying expenditures) relative to companies in the Technology sector. The only industry which shows consistency in terms of coefficient magnitude and being significant is Utilities. The variable is significant at a level of 5% throughout and is even significant at 1% when x equals 0 or 2 (no lag and 1 quarter lag). Companies in this industry lose 0.5-0.7 basis points of their quarterly stock returns when lobbying expenditures are increased by 1% comparatively to those in the reference category. It is also important to note that the Utilities industry is the only industry where all companies lobbied for every single quarter from 2014 Q1 until 2019 Q4. A few other industries are significant however there do not appear to be any clear patterns for many of these instances. Real Estate is significant under no lag and a 1 quarter lag at a level of 10%. There is a positive sign which indicates that Real Estate companies gain 0.2 basis points compared to Technology when lobbying expenditures are increased by 1%. The same thing can be said for Consumer Discretionary companies under 1, 3 and 4 quarters lagged (also significant at 10%) and Energy companies under a 1 quarter lag.

The overall results shown in Table 5 (excluding interaction term) are more reminiscent of those from the original model in Table 3. *Lobbying* has a small negative sign and is significant in all regressions shown. *Soft* on the other hand is only significant at a lag of 2 quarters with a small negative sign, no longer showing significance at a lag of 3 quarters like in Table 3 and 4 although still positive. The *PAC* dummy variable is negative and insignificant under every value of x utilised. *Returns_{t-4}* and *Mcap* show similar coefficients to the results from Table 3 and remain significant. An interesting finding is that *EPS* finally appears significant for the first time in regression 2 (1 quarter lag of *Soft* and *Lobbying*) of Table 5 at a 10% significance level. The variable has a small positive magnitude and is therefore it can be stated that there is a positive relationship between EPS and quarterly stock returns at that particular lag although there is not much to interpret from this in general.

4.4 Discussion of Results

The results from this study indicate that under certain conditions there is certainly a positive impact on stock returns as a result of corporate political activity, namely lobbying expenditures.

This result supports the acceptance of Hypothesis 1. Lobbying is found to have a significant positive effect upon returns when an interaction effect between Lobbying Expenditures and Market Capitalization is inserted into the base iteration of the model used resulting in Table 4. This finding may be reminiscent to that of Borghesi & Chang (2014) where it was discovered that lobbying was linked to positive returns under certain conditions. It is important to note that this paper had considered thousands of companies in their data and found that lobbying led to positive returns when a company had low agency problems. The *Lev* variable (total liabilities / total assets) had the potential to be a measure of agency problems as academic literature has concluded that collateral can play a role in reducing agency problems and that the more leveraged up a client is, the higher their agency costs of debt become (Dennis et al., 2000; Jensen, 1986). However, *Lev* was always positive with a fairly small magnitude yet never significant in any of the result tables. Kim (2008) found inconclusive results through the use of GLS and EC2SLS regressions and was not able to determine the impact of corporate political activities such as lobbying and soft money contributions upon stock returns of S&P 500 companies. Throughout this study, lobbying was always a significant variable in explaining a company's stock returns and this differs to the findings of Kim (2008). However, a point of similarity may be the inconclusive findings of this study with regards to the impact of having a PAC and making soft money contributions. It is also important to note that literature by Borghesi & Chang (2014) and Kim (2008) considered a time frame of the late 90s to early 2000s while my data considers the mid to end of the 2010s.

A finding of this paper is that smaller companies exhibit significantly higher returns than bigger ones when lobbying expenditures are kept constant meaning that smaller companies have more to gain from lobbying. This was a key discovery found by using Equation 2, resulting in the creation of Table 4 and supports the acceptance of Hypothesis 3. Borghesi & Chang (2014) found that larger companies were more likely to lobby and this may suggest that there is lesser competition between smaller companies and that lobbying is also more of a unique occurrence among them. Hypothesis 2 on the other hand, will have to be rejected due to the overall inconclusive nature of the soft money contributions variable which is discussed several times in prior sections. It was mainly insignificant, switching between being positive and negative in Tables 3 and 4 when it appeared as a significant variable. The *Soft* variable did not prove to have a more positive impact upon a company's returns than *Lobbying* in Tables 4 and 5 where interaction terms were introduced. The only time the variable had a more positive impact than lobbying expenditures was in regression 4 of Table 3, there is not much to interpret.

Hill et al. (2015) and Chen et al. (2015) believed that lobbying expenditures led to abnormal returns, although their papers were focused more towards finding if a portfolio of lobbying companies generated abnormal returns or exhibit higher ones than non-lobbying firms. Their use of factor models such as Fama French ones to compile results do not allow for an accurate comparison between this study and that of Hill et al. (2015) and Chen et al. (2015). However, the results between studies do seem to point in the same direction at times.

A final point for discussion relates to the topic of endogeneity and potential sources for it. All models may suffer from endogeneity due to omitted variables which may impact variables for corporate political activity or impact the dependent variable of returns. Existing political connections (possible omitted variable) that a company might have may be a substitute for corporate political activity for starters. Additionally, the impact or scope of legislation that a company is subject to may influence the usefulness of corporate political activity.

5. Conclusion

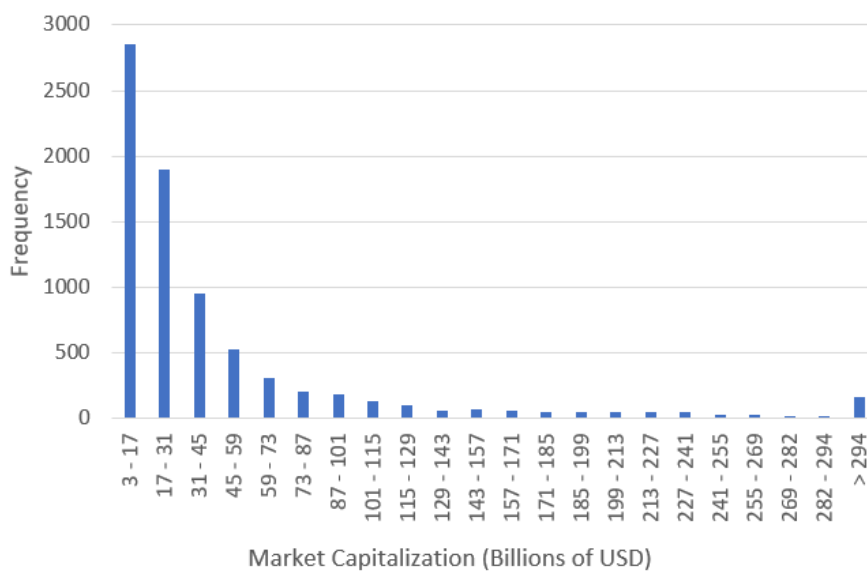
This section will highlight the key findings and takeaways from this study. Thereafter, limitations to academic literature on this topic as well as their implications will be discussed. Finally, this section will close the paper with suggestions for further research.

5.1 Key Findings

As discussed previously, lobbying is found to have a significant positive impact upon a company's quarterly returns under a model which includes an interaction effect between *Lobbying* and *Mcap*. When quarterly lobbying expenditures are increased by 1%, a company's quarterly stock returns increase by 1.4-1.5 basis points. The interaction term between *Lobbying* and *Mcap* showed that smaller companies stand to gain more from lobbying relative to larger ones. Larger companies seem to have closer ties to the government which suggests they may have less to gain from lobbying since they are already vital for the American economy and interests. There seems to be a trend of the largest US companies coming to testify and meet with politicians (on an invitational basis), such as with the recent AI developments. Google and Microsoft executives were invited to the White House for a meeting on AI whilst execs from Nvidia, IBM, Tesla, Google, Meta came to testify at the Senate or meet with lawmakers (Shepardson et al., 2023; Bose & Shepardson, 2023). Dicko (2016) discovered that firm size and political connections were significant and positively correlated with whether a sample of TSX/S&P 500 listed companies won government contracts which further supports the idea of larger companies having closer governmental ties. The results from Equation 2 which are displayed in Table 4 may be the more valid model to consider compared to the other one's included in this study. This is due to the size of a firm measured by market capitalization being an important control variable with a significant impact upon returns at a level of 1% in all models displayed. This variable may be a more important measure to control for than industry, as the averages (by industry) depicted on Table A1 may not truly capture the differences that exist between firms in the S&P 500. Figure 1 is included below to show the distribution of the market capitalization variable *Mcap*. The histogram shows that there is a clear skew to the left with majority of observations belonging to the first few histograms. 61% of observations belong to the first 2 histograms in the range of \$3-31 billion. There is also a clump of observations on the far-right side which show that there are some firms which fall into the complete opposite side of the spectrum with market capitalization of above \$294 billion. Considering this, it might be likely that firms may be more closely related to each other by their

size and not because of the fact they are part of the same industry. It may also be that firms across 2 or more industries share a lot in common and therefore the use of industry as an interaction term did not result in much to interpret from Table 5. It is also important to note that the Utilities industry which was consistently significant with a negative sign was the only industry where all companies lobbied for every single quarter from 2014 Q1 until 2019 Q4. The lack of non-lobbyists in the Utilities industry suggests that regression output can only explain the difference between a company lobbying close to the reporting minimum and a few millions on a quarterly basis.

Figure 1: Distribution of Quarterly Market Capitalization from Dataset of S&P 500 Companies (2015 Q1 – 2019 Q4)



Notes: Each company in the dataset included contributes data for 20 quarters. Greater than 294 is chosen as the last histogram and contains 158 observations.

Although it was ultimately discovered that lobbying had a positive significant impact upon a company’s returns, there are still points to discuss regarding other forms of corporate political activity. The *PAC* variable was a dummy indicating whether a company had a corporate PAC or not and the inclusion of this variable in the models used did not lead to any meaningful interpretations. The summary statistics in Table 2 show that the number of companies with a corporate PAC remained very constant throughout. Only 22 firms fell into the category of having a corporate PAC but not for the entirety of the period investigated. Whilst this study utilises a dummy variable, Kim (2008) chose to use data on contributions and made inconclusive findings. Contributions and political stances of corporate PACs may provide interesting data; however, it is vital to reiterate that a company is not responsible for the

activities of their PAC and instead their employees are. Soft money contributions represented by the *Soft* variable was found to be significant a couple of times however this did not mean any conclusions could be made due to the lack of consistency regarding this variable. Even in Table 4 where the impact of market capitalization was explored, the variable had a significant negative impact once (regression 3) and then in the following regression (4) it had a significant positive impact. These results although significant at times led to no meaningful takeaways and the impact of soft money contributions on quarterly stock returns is inconclusive as well.

5.2 Limitations and Future Research

Data and therefore studies on lobbying may have a few flaws that are very difficult to circumvent or account for. In the US, lobbying is not limited to just firms on a separate or individual level and there are examples where organisations that represent the interest of numerous companies are active in lobbying. These organisations usually consist of firms that may be expected to share interests due to the fact they belong to the same industry or perhaps a related sector. There was one particular organisation named Biotechnology Innovation Organization which represented the interests of numerous healthcare or pharmaceutical companies and was among the top spenders during the 2010s (within healthcare on OpenSecrets.org). Although some of their members included S&P 500 companies such as Pfizer, it was not possible to figure out the stakes or exact contributions they had due to no public records being available. It is also important to note that Pfizer had spent considerable amounts on lobbying by itself anyways, however this does not rule out the possibility that a firm is a member and hence donor to an industry-wide lobbying group while being regarded as a company that does not participate in lobbying in this study. There may also be an issue with free-riders due to the existence of industry groups as well as the lobbying activities of rival firms which may benefit those with shared interests (who do not lobby). One of the reasons industry fixed effects were introduced was to mitigate the activities of industry-wide lobbying groups or organisations, however this may be an imperfect solution.

A possible policy change that may benefit future papers on lobbying is to make it mandatory for industry lobbying groups to publish records on their members or donors and to ensure that these are recorded as expenditures towards the group under Senate disclosure forms and figures. A probable extension of this suggestion is to make industry groups record contributions or donations by corporate stakeholders as lobbying income (for a client) which must be disclosed if it exceeds the mandatory minimums set in place. Another limitation of this paper is the scope to which lobbying activities are seen as successful or have been productive.

Although companies spend a ton of money on lobbying, it is only optional for their lobbyists to add which bills they have worked on. This means that it is difficult to tell what the motives behind lobbying on certain bills were and the stances that were taken by companies regarding particular pieces of legislation. Even though the US government is very transparent when it comes to financial disclosures in politics, there may be things that can still be picked up from the EU for example. Although EU lobbying expenditures are only published on an annual basis, meetings between EU politicians and lobbyists or company representatives are published to name those involved, the date of the meeting and the subject of discussions (LobbyFacts, n.d.). More transparency regarding the exact work and actions of lobbyists would be beneficial in determining the successfulness of lobbyists and the interests of the companies they work for from an outside perspective.

A final limitation that may exist is the potential correlation of lobbying and other contributions to unobservable variables which may be the actual source of value to a firm. This is also a limitation that is found and discussed by Chen et al. (2015) and remains an extremely valid one although a lot has changed over time. These unobservable variables may include political or governmental connections that exist for a firm through management and ownership which may not be measurable or even be public knowledge. Firms which regularly receive government business or contracts should in theory have a closer relationship with the government and therefore have more connections which could be beneficial. This means that although lobbying may be a source of value to a firm, the true value rests in the connections or relations that the firm has with the government. This statement can be tied into the earlier story involving the donations that Sam Bankman-Fried made to politicians in order to influence them according to US prosecutors (Miller & Chipolina, 2023). Do executives donate money in order to support candidates they strongly believe in or do they donate to maintain or create connections with the government on behalf of their firm? A suggestion for further research is to investigate whether firms with corporate political activity and / or executives which donate to the political system outperform firms who do not.

6. Appendix

Table A1: Statistics on Important Variables by Industry

Industry	No. Firms	Average Returns	Mean Lobbying	N No Lobbying	Mean Soft	N Soft	Mean PAC	Mean Mcap
Technology	39	0.047	572,462	290	56	2	0.43	83,938
Telecommunications	6	0.013	1,460,100	16	451	5	0.83	111,279
Health Care	43	0.035	626,576	132	136	7	0.77	63,200
Financials	51	0.024	474,511	150	1,082	2	0.88	54,832
Real Estate	21	0.025	61,393	313	40	1	0.10	24,265
Consumer Discretionary	72	0.024	300,585	566	124	10	0.47	41,775
Consumer Staples	30	0.021	508,809	92	69	5	0.81	54,136
Industrials	65	0.029	567,564	460	48	6	0.60	41,123
Basic Materials	15	0.017	272,409	83	0	0	0.81	20,856
Energy	23	-0.004	518,189	176	35,362	38	0.69	51,482
Utilities	26	0.028	595,022	0	8,229	31	1.00	25,581

Notes: Total dataset contains 391 companies and this table considers the dataset in its entirety. Mcap is denoted in millions, PAC is a dummy variable. N stands for observations.

Table A2: Statistics on Important Variables by Industry (Lobbying Firms)

Industry	No. Firms	Average Returns	Mean Lobbying	N No Lobbying	Mean Soft	N Soft	Mean PAC	Mean Mcap
Technology	33	0.042	676,546	146	66	2	0.51	96,275
Telecommunications	6	0.013	1,460,100	16	451	5	0.83	111,279
Health Care	40	0.035	673,569	60	146	7	0.83	67,000
Financials	47	0.024	514,895	54	22	1	0.91	58,063
Real Estate	12	0.021	107,438	97	69	1	0.17	22,945
Consumer Discretionary	55	0.025	393,493	158	163	10	0.57	49,166
Consumer Staples	30	0.021	508,809	92	69	5	0.81	54,136
Industrials	50	0.029	737,833	100	62	6	0.79	49,560
Basic Materials	12	0.014	340,511	11	0	0	1.00	23,260
Energy	20	-0.002	595,917	104	40,655	38	0.74	53,999
Utilities	26	0.028	595,022	0	8,229	31	1.00	25,581

Notes: Total dataset contains 391 companies, this table considers companies that lobby for at least one quarter. Mcap is denoted in millions, PAC is a dummy variable. N stands for observations.

Table A3: Statistics on Important Variables by Industry (Non-Lobbying Firms)

Industry	No. Firms	Average Returns	Mean Lobbying	N No Lobbying	Mean Soft	N Soft	Mean PAC	Mean Mcap
Technology	6	0.071	0	144	0	0	0.00	27,543
Telecommunications	0							
Health Care	3	0.031	0	72		0	0.00	12,653
Financials	4	0.025	0	96	13,542	1	0.50	16,869
Real Estate	9	0.030	0	216	0	0	0.00	25,466
Consumer Discretionary	17	0.022	0	408	0	0	0.12	17,524
Consumer Staples	0							
Industrials	15	0.028	0	360	0	0	0.00	13,001
Basic Materials	3	0.032	0	72	0	0	0.06	11,239
Energy	3	-0.018	0	72	0	0	0.33	34,703
Utilities	0							

Notes: Total dataset contains 391 companies, this table only considers companies that never engage in lobbying. Mcap is denoted in millions, PAC is a dummy variable. N stands for observations.

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