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THE EFFECT OF CORPORATE POLITICAL ACTIVITY ON THE FINANCIAL PERFORMANCE OF US PUBLIC PHARMACEUTICAL FIRMS

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Corporate political activity (CPA) in the US has received a significant amount of attention from academic research, especially because it involves billions of dollars yearly and because the public is concerned with its undue influence over the legislative process. The predominant view in the literature holds that CPA is positively associated with financial performance, however, evidence is mixed. Prior research also suggests that firms operating in a highly regulated industry, such as pharmaceutical firms, are more likely to engage in CPA. As such, benefits from CPA, or detrimental effects for that matter, should be most visible in such industries. From this stems the purpose and motivation of this study.

The purpose of this study is to examine the effect of corporate political activity, as measured by the dollar amounts of PAC contributions and lobbying expenditures, on the financial performance of US public pharmaceutical firms in the period 1998-2013. The study is motivated by the lack of academic consensus regarding the nature of the relationship between CPA and financial performance and by contradictory empirical evidence on the subject.

To this end, I conduct a two-stage regression analysis and find that, contrary to the predominant view in literature, CPA is significantly and negatively associated with firm financial performance, as measured by net income and income before extraordinary items. The findings can be best interpreted in the framework of the agency theory to be indicators of risky managerial decision-making, inadequate evaluation of political investments, lack of or insufficient monitoring, or personal managerial consumption of political expenditures.
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1 INTRODUCTION

1.1 Overview

Economists have long acknowledged the incentives of firms to become politically connected (Faccio 2006). The value of corporate political activity (CPA) can translate into preferential treatment by governmental agencies, easier access to government contracts, lower tax rates, decreased regulatory oversight for the politically connected firm, or increased regulatory oversight for its competitors (Correia 2014, Dinc 2005, Adhikari, Derashid & Zhang 2006, Khwaja & Mian 2005, Claessens, Feijen & Laeven 2008, Goldman, Rocholl & So 2013). However, it is unclear whether firms experience net benefits from these relationships, since there are costs associated with rents extracted by politicians and managers. For example, Aggarwal, Meschke and Wang (2012) document a negative association between political contributions and stock returns and claim that this is evidence of agency problems and that corporate political spending may be a form of managerial perquisites consumption that harms the firm’s profitability. Overall, the evidence on the effect of corporate political activity on the firm’s financial performance is mixed and not fully understood (Hadani & Schuler 2013).

The divergent results can be explained using insights from organizational theory, political science, and strategic management. The theories are not mutually exclusive, since the motivation behind the CPA and the business dynamics may differ for firms. For example, a firm may lobby for a bill that, being passed, reduces the firm’s effective tax rate (Richter, Samphantharak & Timmons 2009). This is consistent with the industrial-organization economics, which predicts a positive relationship between CPA and financial performance (Stigler 1971). Nonetheless, the same firm may make PAC contributions that are driven by the ideological beliefs of the CEO and could, in fact, damage the firm’s profitability (Ansolabehere, de Figueiredo & Snyder 2003). This form of CPA is consistent with the agency theory, which suggests that campaign contributions are a form of managerial consumption, and could explain a negative relationship between CPA and financial performance (Hadani & Schuler 2013). The bottom-line effect of having political connections is not evident in this case. As such, empirical results are reflective of the specific managerial motivation that drives CPA. This study
will investigate the relationship between CPA and financial performance in order to determine which theoretical framework most relevantly describes the US corporate political activity.

1.2 Prior research

The prevailing view in the literature holds that CPA is a valuable means to enhance a firm’s financial standing (Bonardi, Hillman & Keim 2005, Hillman, Keim, & Schuler 2004, Lux, Crook & Woehr 2011). Yet empirical studies have not conclusively supported this view. Even though CPA has multiple facets and means of expression, traditionally, academia has most extensively used either campaign contributions, or lobbying amounts as measures of CPA, scarcely both simultaneously (Kim 2008). Recently, there is an emerging body of research that focuses on CPA in terms of “formal and informal networks including board memberships by politicians and executives joining politics” (Mathur & Singh 2011: 260).

Empirical research examining the effect of campaign contributions on financial performance yields mixed results. Cooper, Gulen, and Ovtchinikov (2010) find a significant positive relationship between the number of candidates supported by a firm through PAC (Political action committee) contributions and its future abnormal returns. They document a stronger relationship for firms supporting candidates running for office in the same state in which the firm is headquartered. By contrast, a number of studies fail to find a significant relationship between campaign contributions and financial performance. Ansolabehere, Snyder, and Ueda (2004) examine the returns of firms that made soft money contributions around five events concerning the passing of legislation that banned soft money donations effective 2003. The authors do not find significant return differences among firms that have donated and those which have not. Similarly, when analyzing the US steel industry between 1977-1984, Lenway and Schuler (1991) find no significant relationship between the level of a firm’s CPA and the market’s appraisal of future performance, as reflected in market share and ROE. Put differently, firms that commit the most resources to campaign donations are not the main beneficiaries of trade protection.
One study reports a negative relationship between corporate campaign donations and future abnormal returns (Aggarwal et al. 2012). Moreover, their results suggest that donor firms exhibit agency problems, free cash problems, and lower returns for acquisitions.

Correspondingly, studies focusing on the relationship between corporate lobbying and financial performance produce inconclusive results. On one hand, there are several studies that report positive correlations. Shaffer, Quasney, and Grimm (2000) investigate the effect of nonmarket factors, such as news of collective lobbying in the media, on financial performance in the US airline industry and find positive associations with profit margin, market share, and capacity utilization. In their study of US universities that lobby for educational earmarks, de Figueiredo and Silverman (2006) find that universities without representation in the appropriate Congress agencies have zero returns to lobbying. However, universities with representation on the Senate Appropriations Committee receive, on average, $11-$17 return for every dollar spent on lobbying. Equivalently, universities with representation on the House Appropriations Committee secure $20-$36 for each dollar of lobbying. Chen, Parsley, and Yang (2010) find that, on average, lobbying is positively associated with accounting measures of financial performance. However, firm level analysis reveals that only firms engaged in intensive lobbying outperform their peers, whereas most firms do not earn excess returns on lobbying.

On the other hand, a number of studies find no significant relationship, or even more damaging, negative associations between lobbying expenditures and financial performance. Lenway, Jacobson, and Goldstein (1990) find that the International Trade Commission is not responsive to pressure from the Congress, thus lobbying for trade protection is not an effective political strategy. Coates (2010) finds that CPA, as measured by lobbying and PAC contribution amounts, is strongly and negatively associated with firm value, suggesting that CPA expenditures may harm shareholder interests. Igan, Mishra, and Tressel (2011) examine the role of lobbying financial institutions on the recent financial crisis. They find that institutions intensively lobbying mortgage lending and securitization related issues were associated with riskier behavior.
prior to the crisis and with worse outcomes after the crisis. Moreover, the authors document a higher probability of bail-out for lobbying financial institutions. These results suggest, according to the authors, that “lending by politically active lenders played a role in accumulation of risks and thus contributed to the financial crisis” (Igan et al. 2011: 1).

Evidence regarding the combined effect of both PAC contributions and lobbying expenditure is also inconclusive. Correia (2014) studies the effect of political connectedness, as measured by PAC contributions and lobbying expenses, on the probability of prosecution by the SEC and, conditional on prosecution, on penalty costs. The study finds that, on average, firms engaged in CPA are less likely to face SEC enforcement actions and, if prosecuted, incur lower penalties. Hersch, Netter, and Pope (2008) examine the relationship between a company’s CPA, as defined by PAC contributions and lobbying amounts, and its Tobin’s $q$. They find no significant association between the two. The findings suggest that CPA may not have long-term effects on political markets. Divergently, Hadani and Schuler (2013) claim that CPA is negatively associated with market and accounting performance. The single exception holds for companies in regulated industries that seem to benefit from CPA.

Lastly, research on the effect of networking on financial performance does not appear to elucidate the nature of the relationship. On one side, several studies recognize the benefits of having politically connected board members or top executives. Goldman et al. (2013) show that CPA influences the allocation of procurement contracts in the US. The authors link a company to either the Republican or the Democratic party based on the political experience of board members. Their analysis indicates that the share of procurement contracts increases (decreases) when the party linked to the company takes (loses) control in the Congress. Houston, Jiang, Lin, and Ma (2014) analyze the effect of board directors with political connections on the cost of debt. They find that firms with political connections experience significantly lower costs of bank loans. These results suggest that “political connections increase the value of U.S. companies and reduce monitoring costs and credit risk faced by banks, which, in turn, reduce the borrower’s cost of debt” (Houston et al. 2014: 194).
Moreover, it seems that the market reacts positively when politically connected board members are appointed. Goldman, Rocholl, and So (2009) document positive abnormal stock returns after a director with political background is nominated to the board. Additionally, the authors find that after the Republican win in the 2000 presidential elections, firms connected with the Republican Party experience an increase in market valuation. The opposite holds for firms connected with the Democratic Party. In a similar manner, Hillman, Zardkoohi, and Bierman (1999) find that companies experience positive abnormal returns when a board member with Federal ties is appointed. The results suggest that the “market must consider this type of linkage valuable to the individual firm” (Hillman et al. 1999: 80).

On the other side, there are a number of studies that report negative associations between CPA, as defined by the political background of board members, and accounting performance (Boubakri, Cosset & Saffar 2008, Faccio, Masulis & McConnell 2006, Faccio 2010). Furthermore, the literature highlights additional negative aspects of CPA. Brockman, Rui, and Zou (2013) investigate the effect of CPA on merger and acquisition performance. They find that, in countries with strong legal enforcement or low levels of corruption, politically connected acquirers earn 15% less in abnormal stock returns over 3 years than non-connected counterparts. Chen, Ding, and Kim (2010) examine the relationship between CPA and financial analysts’ forecasts. They find that forecasts are less accurate for politically connected firms, suggesting that “political connections exacerbate the information asymmetry between investors and managers” (Chen et al. 2010: 1505).

Chaney, Faccio, and Parsley (2011) show that firms with politically connected boards report earnings of a lower quality than matched non-connected firms. The authors argue that the plausible explanation for this effect is that once firms secure the protection associated with political ties, “connected firms face a lesser need to devote time and care to managing discretionary accruals” (Chaney et al. 2011: 74). Moreover, the study associates lower quality earnings with higher cost of debt only for the non-connected companies; i.e. politically connected firms do not encounter negative repercussions from low quality reports.
Research shows that firms are aware of the stigma associated with them being politically connected. As such, Guedhami, Pittman, and Saffar (2014:107) show that politically connected firms are more likely to hire a Big 4 auditor, suggesting that “these firms are eager to improve accounting transparency to convince outside investors that they refrain from exploiting their connections to divert corporate resources”. This relationship is stronger for firms with severe agency problems and for firms operating in weak legal environments. Apart from signaling commitment to transparency to outsiders, Big 4 auditors also discipline insiders against misappropriation.

In conclusion, evidence looking at different aspects of CPA cannot convincingly describe the relationship between CPA and financial performance. Moreover, academia has yet to reach a consensus regarding the optimal measure of CPA, since it is difficult to capture all manifestations of CPA. The many facets of CPA will be reviewed in Chapter 2. Generally, CPA is measured by either quantifying the political spending made by companies, such as lobbying and donations to politicians, or by determining the nature of relationships between firms and politicians (Correia 2014).

While a significant level of political influence might be exercised through political networks in absence of monetary transactions, it is difficult to provide a comprehensive map of social links. For example, Goldman et al. (2013), Hillman et al. (1999) and Agrawal and Knoeber (2001) analyze the political background of members of the board of directors. Kozan (2014), in addition to looking at the political past of board members, examines the effect of gift giving to a politician and sponsorship of a politician on a firm’s financial performance in UK. Although Kozan (2014) finds a positive association between gift giving to politicians and financial returns in the UK, suggesting it would be valuable to examine this aspect of CPA as well, it is difficult to keep track of gifts to US politicians, since there are rigid restrictions to the value of a gift a politician can accept during a year\(^1\). Gifts made outside of the legal framework would be problematic to account for.

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\(^1\) Rule 35 (1) of the Senate Code of Official Conduct of 2008 limits the value of a gift received from one source to $50 per gift and $100 per year from one source. A similar provision is in place for House representatives.
One of the most popular measures of CPA in terms of networking in the academia has been developed by Faccio (2006). She defines a politically connected firm (PCF) as such if one of its top executives or large shareholders is currently a member of a parliament or a minister, or is closely related to one. However, the US imposes legal restrictions on House or Senate members sitting on boards of directors\(^2\), which deems the Faccio (2006) framework less applicable to the US environment. In the light of the highlighted issues regarding network-based measures of CPA, this study will use transaction-based measures of CPA, namely PAC contributions and lobbying expenditures.

However, there are two main issues associated with these measures as well. Firstly, they do not capture the total corporate political spending on the US arena. Aside from PAC contributions and lobbying expenditures, which account for the most corporate political spending in the US, corporations can make contributions to 527 groups\(^3\) and, until 2003 when it became illegal, soft money contributions. Since contributions to 527s cannot be easily traced to a particular candidate, this study will not include them in the analysis. Furthermore, in 2010, the Supreme Court authorized the creation of Super PACs, which allow corporations to make un-capped campaign donations (Hadani & Schuler 2013). The effects of this newly created form of corporate political spending have not yet been researched, even though there are predictions from the academia (Coates 2010).

Most recently, Freed and Carroll (2006) emphasize the establishment of another donations channel, which is less transparent – trade associations. The report claims that, in 2004 alone, “more than $100 million was spent by just six trade associations on political and lobbying activities, including contributions to political committees and candidates” (Freed and Carroll 2006: 1). Most disturbingly, under current regulation, contributing corporations are not required to disclose this spending. The authors assert that the use of trade associations for political spending permits corporations to fund politicians with whom they would not prefer to be publicly associated.

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2 Rule 37 (6) of the Senate Code of Official Conduct of 2008 prohibits senators and certain Senate employees from serving as officers or board members of public companies. Members of the House, however, can occupy those positions as long as they do not receive compensation for board service, according to House Rule 25 (5) of 2008.

3 The so-called 527 groups can raise unlimited soft money, i.e. funds that can be used for voter turn-out efforts and some kinds of issues advocacy, but cannot be directly used to promote a certain candidate (Center for Responsive Politics).
Secondly, some researchers claim that PAC contributions should be considered a form of personal consumption, rather than corporate spending (Ansolabehere al. 2003, Chen et al. 2010). Corporations can cover operating costs, but cannot directly contribute to affiliated PACs; instead, such organizations can solicit funds from employees, shareholders, and their families (Correia 2014). Thus, PAC contributions should be regarded as a means to promote personal ideological views and should be excluded from firm-level analysis. However, the decision to allocate PAC contributions to specific candidates usually resides with the company’s top executives.

Additionally, a significant share of contributions is distributed each election cycle to incumbents, which is consistent with the claim that “firms [use] PAC contributions to buy access or special favors, rather than for ideological reasons” (Correia 2014: 248). Also, there is research that links PAC contributions to a firm’s financial performance, thus suggesting that this form of CPA can potentially be a means to enhance the value of the company (Cooper at al. 2010). Finally, PAC contributions and lobbying expenditures may be complementary means in facilitating the firm’s access to politicians, i.e. PAC contributions can be used to access legislators (Mathur & Singh 2011, Correia 2014, Ansolabehere, Snyder & Tripathi 2002, Milyo, Primo & Groseclose 2000).

1.3 Purpose and structure of the thesis

The purpose of the study is to use PAC contributions and lobbying expenditures as measures of CPA, for reasons discussed above, in order to assess their effect on the financial performance of US public pharmaceutical firms in the period 1998 - 2013. The pharmaceutical industry in the US is heavily regulated (Grabowski, Vernon & Thomas 1978, Temin 1979, Thomas 1990). Research shows that regulated and concentrated industries are more likely to engage in CPA and that they document higher returns to their political investment compared to non-regulated industries (Mathur & Singh 2011, Schuler, Rehbein & Cramer 2002, Hadani & Schuler 2013). These claims give rise to the motivation of this study, which is to investigate whether public pharmaceutical firms in the US do, in fact, enjoy superior financial performance due to political investments.
There are different strands of theory that attempt to explain the contradictory results discussed in the previous section and this paper will review them in Chapter 3. The effects of CPA on a firm’s performance are intricate and dependent on exogenous factors, such as the level of regulation in the industry or the strength of the legal enforcement environment (Brockman et al. 2013, Hadani & Schuler 2013). Moreover, it is worth investigating what are the determinants and forms of CPA and whether they can explain some of the divergences in empirical results. This issue will be discussed at large in Chapter 2.

The rest of the study is organized as follows. Chapter 2 will review the major aspects of CPA and the determinants behind the corporate decision to engage in CPA. Special attention will be allocated to PAC contributions and lobbying expenditures and the relationship between them. Chapter 3 will provide theoretical support to explain the relationship between CPA and financial performance. Firstly, I will overview theory that predicts a positive relationship; secondly – a neutral relationship; and thirdly – a negative relationship. Based on the theory described in Chapter 3, I will develop my hypotheses. Next, I will describe the data and conduct the empirical analysis in Chapter 4 and report the results in Chapter 5. Chapter 6 will offer conclusions, discuss limitations of the study, and suggest future opportunities for research.
2 US CORPORATE POLITICAL ACTIVITY

The US political system is largely viewed as a “relatively fair and impartial form of government, especially when compared to other governments” (Cooper et al. 2010: 687). However, the US public has expressed concern with lobbying and campaign contributions and their alleged undue influence on policies. Are PAC contributions and lobbying just a legal form of bribery? Are lobbyists just “cigar-chomping men who wine and dine the nation’s lawmakers while shoving dollar bills into their pockets”? (Birnbaum 1993 via Keffer & Hill 1997). Or is lobbying a strategic marketing tool employed to follow and advantageously curb changing regulation? Similar questions apply for PAC contributions. Are they “best understood as symbols of reciprocated good will, or something more nefarious”? (Milyo 2002).

The answers to these questions depend on whether these activities translate into influence. Milyo et al. (2000) argue that there is no evidence to support the bribery view and that the access gained to politicians through campaign contributions is inconsequential. Keffer and Hill (1997) provide an ethical approach to these questions and claim that, while it might be clear that lobbying is beneficial for all entities involved, it is important to assess its effect on citizens outside the lobbying circle. As such, they conclude that lobbying is not inherently good or bad, but “when lobbying results in the subordination of the needs of the larger community to the needs of special interests, a correction should occur” (Keffer & Hill 1997: 1378). While this framework has the greater common well-being in mind, it is difficult to achieve a balance between exercising the right to petition legislature and complying with corporate and ethical standards.

Despite ethical concerns, lobbying was a $3.23 billion business in 2014 and PAC contributions amounted to $1.7 billion for the same year (CRP). The significant amounts spent on political investments legitimize the following questions:

1) Why do firms engage in CPA?

2) How do firms engage in CPA, i.e. what are the main means of political participation?
This chapter will use extensive literature from economics, finance, and management in an attempt to answer the above questions.

2.1 Determinants of CPA

When discussing the issue of motivation behind a firm’s decision to engage in CPA, this paper will take two distinct perspectives. Firstly, I will look into firm-level determinants. Secondly, I will broaden the perspective and analyze the external factors that have an impact on the firm’s decision to engage in CPA. At firm level, literature treats a company as a “value maximizing rational [emphasis added] business entity” (Mathur & Singh 2011: 255). The rationality assumption implies that “if the expected benefit of a political expenditure is greater than the expected benefits of alternative investments that the firm might make, the cost is incurred” (Hart 2010: 3). As such, the firm strives to invest resources efficiently along a so-called “political possibility frontier”, which is similar to the concept of production possibility frontier in macroeconomics. Thus, the decision to lobby or make PAC contributions depends on both having the means and expecting benefits from political expenditure. I will further outline common firm attributes identified in the literature as explanatory characteristics of the decision to engage in CPA.

The external factors that impact the decision to become politically active are mostly industry related. A firm’s decision to make political investments and their timing also depend on the attractiveness of the political market. These factors will be discussed at length in the following sections.

2.1.1 Firm-specific characteristics

Research suggests that larger companies are more likely to engage in CPA as they have more resources to do so and, consequently, greater expected benefits (Mathur & Singh 2011). Schuler and Rehbein (1997: 129) posit that “having high levels of slack resources should positively affect the ability of the firm to become politically involved”. Firms must have a certain level of resources in order to engage in CPA, since some political

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4 The production possibility frontier (PPF) depicts the trade-off between alternative production possibilities in an economy with scarce resources and the most efficient use of those resources.
activities are associated with “lumpy costs”. Similarly, Schuler et al. (2002) hypothesize that large firms are more likely to be politically active since they usually have complex public policy needs. Moreover, larger firms appear to have a competitive advantage over smaller firms as regulators prefer political informants who can represent large constituencies and provide access to their vast resources. Hansen and Mitchell (2000: 899) provide evidence that the size of a firm, therefore its visibility, “increases the likelihood of public attention, mobilization, and policy activity”. Mitchell, Hansen, and Jepsen (1997) report that firm size, as measured by dollar amount of sales, increases the likelihood that a firm will make PAC contributions. The authors infer that “the larger the firm, the more likely it is to attract the attention of government, other institutions and groups, and congressional incumbents looking for campaign contributions” (Mitchell et al. 1997: 1102).

Cooper et al. (2010) provide empirical evidence that firms that make PAC contributions are larger than those which do not. According to their results, while only 7.2 per cent of public firms make PAC contributions annually, those firms represent approximately 48 per cent of total market capitalization. Moreover, the authors show that larger firms make PAC contributions to more candidates. Similarly, Brasher and Lowery (2006) find that large and diverse firms in terms of lines of business and geography are more likely to engage in CPA than small firms. However, the authors document a curvilinear relationship between firm size and lobbying activity, which suggests that, “at some point, size does not translate into a greater propensity to lobbying, spending more on lobbying, or lobbying on more issues” (Brasher & Lowery 2006: 19).

Hansen, Mitchell, and Drope (2005: 151) also theorize that “when size varies among the firms, it may be that for the larger firm the gain from the collective good outweighs the cost of securing the good”. This premise is consistent with the firm as a rational value maximizing entity that uses its slack resources in an efficient manner (Hart 2010, Schuler & Rehbein 1997). Drope and Hansen (2006: 13) claim that “it is pretty clear that large firms generate the majority of business-level political activity”, but that researchers should be careful when generalizing results from large-firm analyses to the entire business environment. Lastly, Hart (2010) suggests that smaller profit maximizing firms
acting in a rational manner would choose not to allocate resources for political spending, especially when CPA provides positive externalities for the entire industry. In that case, small firms would prefer to free ride on the political spending of large firms.

Research finds leverage to be another important determinant of CPA (Mathur & Singh 2011). Theories of corporate finance suggest that leverage can have both positive and negative effects on corporate value. While debt is a cheaper source of funding due to interest tax deductibility, high levels of debt are associated with a higher probability of financial distress and higher cost of capital (Fama & French 2002). Empirical research reported by Myers (2007) shows that firms use debt strategically, in order to reduce costs imposed by politicians. While politicians derive rents from firms in the form of taxes and regulations, they generally prefer to prevent firms from becoming financially distressed, since that would negatively affect their re-election prospects. As a result, firms increase their debt levels when facing “hostile” politicians in order to discourage them from further imposing costs on the firms. Myers (2007: 2) provides evidence that “since the probability of financial distress increases with leverage, firms optimally increase their debt to discourage the implementation of costly regulation”. Likewise, when facing non-hostile politicians, firms decrease their debt levels.

Cooper et al. (2010) and Faccio et al. (2006) report that firms that engage in CPA, either through PAC contributions, or network-based means, exhibit higher levels of debt. Faccio et al. (2006: 2598) interpret this as evidence that lenders of politically connected firms “factor into their lending decisions the likelihood that borrowers will be bailed out when they encounter economic distress, and thus lend more to politically connected firms who are, in turn, more likely to be bailed out than their non-connected peers”. Cooper et al. (2010) claim that their results are consistent with the Faccio et al. (2006) interpretation.

Another firm-specific characteristic considered to influence the decision to become politically active is firm performance. However, the relationship is not straightforward. On one hand, companies experiencing financial distress may lack the resources to make political investments. On the other hand, poor performing firms can resort to CPA in order to alleviate their financial problems (Mathur & Singh 2011). Cooper et al. (2010:
support this claim and show that on average, firms that make PAC contributions have “lower prior 36-month returns, higher BM [book-to-market ratio] and leverage, and lower cash flow and profitability compared to similar size noncontributors”. The authors claim that contributing firms have additional incentives to engage in CPA in order to overcome financial distress. However, Chen et al. (2010: 25) report that “increases in lobbying tend to follow poor performance, but what [they] observe is not simply a mean reversion in returns”. That is, firms willing to spend significant amounts on lobbying outperform peers beyond the phenomenon of mean reversion.

2.1.2 External factors

Prior research identifies industry effects as important determinants of CPA. Schuler and Rehbein (1997) claim that industry size affects the likelihood of a firm engaging in CPA. Firstly, in large groups with firms of similar size, it is not probable that one member will be politically active, since it would bear all the costs, but only a portion of the industry benefit. Also, since benefits from a certain policy would be industry-wide, individual firms have an incentive to free ride. Secondly, it is costly to organize a large group of firms and achieve coordination. For these reasons, the authors posit that “industries with many firms are less likely to become politically involved than are those with fewer members (Schuler & Rehbein 1997: 125). Consistent with this theory, De Figueiredo and Tiller (2001) find that large firms lobby less when free-riding is present.

The influence of market concentration is not as clear. On one hand, dominant firms have incentives to be politically active, since they receive a higher return on political expenditures. As such, they are inclined to coordinate and organize political activity within the industry. On the other hand, firms in concentrated industries may face “political disadvantage[s] because politicians hesitate to grant favors to highly visible groups of large firms” (Schuler & Rehbein 1997: 125). Additionally, it may be that concentrated industries do not require government assistance and can “act on their own to garner the benefits of cartelization that less concentrated industries can secure only through political activity (Grier, Munger & Roberts 1991: 737). Grier et al. (1991) provide evidence that supports both sides of the argument, depending on the range of
concentration. The relationship between CPA and industry concentration can be best described by a square function, increasing up to a point and then decreasing.

Schuler et al. (2002) document a significant positive association between an industry’s concentration and the propensity to engage in CPA. Similarly, Kim (2008: 16) finds that “firms in concentrated and regulated industries tend to engage more in both types of political activities [lobbying and PAC contributions]. Bhuyan (2000: 425) also finds that industry concentration is an important determinant of CPA, however, the study reports that, for critically high levels of concentration, “such political activities decline because it is likely that the remaining few firms in such highly concentrated industries have less need for government support to earn supra-normal profits”. Hansen et al. (2005), however, use a range of measures for concentration and fail to find a significant and consistent result. Mitchell et al. (1997: 1106) find that concentration, as measured at the four-digit SIC level, does not have a decisive impact on a firm’s decision to form a PAC, which is, according to the authors, “contrary to conventional political science wisdom regarding profit-maximizing firms, and the findings of other researchers”.

Furthermore, firm interaction with the government, measured by government contracts and the level of regulation in the industry, is also an important determinant in the decision to form a PAC (Mitchell et al. 1997, Grier, Munger & Roberts 1994). Several other studies reach this conclusion. Hansen and Mitchell (2000) find that government procurement, measured as the percentage of government contracts, and government regulation are significant determinants of lobbying and PAC contributions. Drope and Hansen (2006) find that interaction with government, proxied by the number of federal cases in which a firm is involved, is positively associated with the likelihood of lobbying and with the amount spent on lobbying for large firms. A similar relationship is documented for large firms using government procurement as a proxy of government interaction. By contrast, Brasher and Lowery (2006) find that regulation and government procurement are weak explanatory variables for lobbying behavior.

The decision and the timing to engage in CPA also depend on the attractiveness of the political market at the time. The political market, analogous to the economic market, can be conceived as “a collection of political markets where demanders of public policy
interact with suppliers” (Bonardi et al. 2005: 408). According to this view, public policy demanders are “individual voters, interest groups, firms, political parties, and sometimes other governments, either foreign or subnational” (Bonardi et al. 2005: 399). Suppliers of public policy are government legislators. Demanders of public policy can provide officials with financial support, information, or votes, which are crucial for politicians seeking re-election. Political markets are attractive when there is low rivalry on both the demand side, and on the supply side. Bonardi et al. (2005: 401) describe the relationship:

When there is low rivalry on the demand side, suppliers of public policy often can be more effective in meeting the preferences of demanders, whereas when demand-side rivalry is high, suppliers of public policy face an increasingly difficult task in creating public policy that is responsive to the set of active demanders.

Rivalry on the supply side also influences the attractiveness of the political market, but in a different manner than expected in economic markets. While competition amongst suppliers in economic markets is beneficial for buyers, in political markets the opposite is true, since it makes it difficult for any policy to pass, thus reinforcing the status quo and impeding legislative change.

Lastly, the macroeconomic environment also has a decisive role in a firm’s decision to become politically active. Schuler and Rehbein (1997: 124) argue that “macroeconomic forces, such as gross domestic product (GDP), exchange rates, and interest rates, influence the firm’s profits; these forces may also influence the relative success of political activities”. A number of studies have researched the role of macroeconomic factors in trade policy and have found evidence that such factors are important predictors of political involvement (Destler, Odell & Elliott 1987, Takacs 1981, Hansen 1990).
2.2 Aspects of CPA

Traditionally, the main ways to engage in CPA were lobbying and PAC contributions (Mathur & Singh 2011). Most recently, research has focused on the importance of network-based means of engaging in CPA, such as having a former politician sit on the board of directors, or managers joining politics. Additionally, a firm can become politically active through trade associations and industry organizations. Unlike lobbying and PAC contributions, network-based means of engaging in CPA and political transactions in trade associations are difficult to trace, since there are no disclosure requirements. For this purpose, I will conduct my analysis using dollar amount spent on lobbying and campaign contributions.

The most important difference between engaging in CPA through PAC contributions and lobbying originates in the source of funds and the decision point (Mathur & Singh 2011). While a corporation can set up a PAC and fund its operating expenses, the firm cannot directly contribute to the PAC. Instead, employees, shareholders, and their families can voluntarily make contributions. The firm does not control individual contributions, but it does decide how to distribute the funds. By contrast, lobbying expenses are covered by corporate funds and executives have discretion as to the amount of lobbying expenses and the lobbying target.

Although political science literature argues that network-based means of political connectedness and lobbying are important and widely used non-market strategies, most of the research has focused on PAC contributions and its effect on business value (Kim 2008, Chen et al. 2010, Mathur & Singh 2011). Brasher and Lowery (2006:1) note that “unfortunately, the literature does not provide very clear and consistent answers about why some organizations lobby and others do not”. However, research shows that firms spend considerably more on lobbying than on PAC contributions, as much as 20 times more (Milyo et al. 2000, Brasher & Lowery 2006, Chen et al. 2010, Bombardini & Trebbi 2012). Figures 1 and 2 illustrate the lobbying spending relative to PAC contributions for the period 1998-2015 for all industries, and for the pharmaceutical industry, respectively.
It is vivid that, compared to all the industries, the pharmaceutical industry exhibits a greater lobby to PAC contributions ratio. This finding raises the question, why make PAC contributions at all?
Some studies claim that firms use PAC contributions to gain access to legislators and lobby them on key issues (Correia 2014, Mathur & Singh 2011, Milyo, Primo & Groseclose 2000). Ansolabehere et al. (2002) find a much stronger association between PAC contributions and lobbying expenditures than previously thought. Moreover, the study finds that firms that lobby heavily also make campaign contributions consistent with the access theory, while firms that lobby relatively less are motivated by ideological or partisan reasons. The authors conclude that “if lobbying and contributing were indeed separate political activities, or even substitutes, then the extent to which a group emphasized lobbying would likely have little bearing on its contribution strategies” (Ansolabehere et al. 2002: 151).

The complementarities between PAC contributions and lobbying described by the study suggest that a firm’s political influence might be cumulative. For this reason, I will analyze the effect of CPA on firm financial performance using the sum of dollar amounts spent on lobbying and PAC contributions, as opposed to examining the individual effect of PAC contributions and lobbying. I will further discuss the main features of lobbying and PAC contributions in the USA.

2.2.1 What is a PAC?

Political Action Committees (PACs) are set up for the purpose of financially supporting campaigns (CRP 2015). PACs can contribute up to $5,000 towards a candidate per election and can receive up to $5,000 from one entity per year. PACs were first instituted in 1944 at the initiative of the Congress of Industrial Organizations for the purpose of re-electing President F.D. Roosevelt. Contributions towards PACs are voluntary and funds are accounted for separately from the corporate treasury.

A Supreme Court decision in 2010 allowed for the formation of a new type of PAC – super PAC. Super PACs cannot make contributions towards candidates, they can, however, incur uncapped independent expenditures in federal elections. These PACs can raise unlimited funds to run ads, send e-mail, or use other means of advocating for or against a specific candidate. In the seven decades since PACs have been around in the
US, they grew in popularity and amounted to $1.7 billion raised for the period 2013-2014. Since this is a significant amount, the following questions arise:

1) Why do corporations set up and fund PACs? Are corporations motivated by ideological reasons or pragmatic, profit-driven interests?

2) Do PAC contributions affect election outcomes, i.e. do they really matter?

3) And, do PAC contributions affect voting patterns once legislators are in office?

For the first question, most research seems to point out towards pragmatic, rather than ideological reasons. Correia (2014) finds evidence to support the claim that corporate campaign contributions are driven by the prospect of receiving favors in return, rather than by ideological interests. Milyo et al. (2000) point out that the majority of PAC contributions go to incumbents, rather than challengers, suggesting that firms seek to maintain a favorable policy environment. In a similar manner, Thompson, Cassie, and Jewell (1994) find that PAC promote and support candidates who are most likely to be elected. The study reports that “PACs contribute disproportionately to incumbents, with little regard to the expected competitiveness of the election” (Thompson et al. 1994). Additionally, they show that PACs are more likely to support members of the majority party, which also speaks of a profit-seeking behavior, rather than an ideological driven one.

There is another strand of research that claims that “PACs are naïve in their contributions strategies, that they do not maximize their returns, and that they are thus not engaged in maximizing behavior as the „rational person” assumption of economists would suggest” (Stratmann 1992). These researchers suggest that PAC contributions do not attempt to influence public policy, but are, in fact, rewards for past voting patterns (Eismeier & Pollock 1984, Welch 1982). However, Stratmann (1992) investigates contributors in the agricultural sector and finds evidence that contributors act in a rational manner: they support politicians who are undecided (with the hope to lobby them later and persuade towards personal interests); and PACs give less funds to candidates who would vote in their favor as it is (avoiding thus wasteful political spending).
If contributors are indeed rational and profit seeking, what are the reasons behind PAC contributions? Magee (2002) points out that rational PAC contributions are either aimed at influencing politicians once they are elected, or they are aimed at changing election results. The study finds evidence to support the latter argument for PAC contributions, that is, the so called electoral motive. Magee (2002) shows that PAC contributions for challengers do affect election results, whereas funds supporting incumbents do not. This evidence can be interpreted in two alternative ways. Firstly, it may be that PACs are driven by ideological reasons, contradicting prior research, such as Correia (2014), or Milyo (2000). Secondly, it may be that, as explained in Magee (2002: 374), PACs contribute to incumbents to “secure unobserved agenda development services for the interest group [corporation]”.

For the second question, research seems to agree that PAC contributions do help win elections (Snyder 1990, Grier & Munger 1991, Romer & Snyder 1994, Ansolabehere & Snyder 1999). Depken (1998) finds that PAC contributions have a significant effect on the number of votes a candidate receives, even more so than individual and party contributions have. Similarly, Cooper et al. (2010) argue that funds raised for candidates improve their election prospects.

Regarding the third question, research has produced inconclusive results. On one hand, Baldwin and Magee (2000) find evidence that PAC contributions affected voting outcomes for two trade policy bills. Likewise, Stratmann (1991: 618) shows that the “estimated contribution coefficients […] indicate that contributions are an important determinant in explaining the voting behavior of legislators in eight out of the ten votes analyzed”. Furthermore, the author claims that the statistical insignificance of the other two bills analyzed is not inconsistent with the claim that PAC contributions buy votes; it is just that those two particular bills were too broadly defined.

On the other hand, there are scholars who are skeptical about the ability of PAC contributions to affect legislators’ voting behavior. Milyo et al. (2000: 76) note that PAC contributions do not seem the most efficient way of influencing politicians:
The very idea of building a majority coalition by buying off individual members of Congress (a group not renowned for their fidelity or trustworthiness) with small campaign contributions and without an explicit contracting mechanism, as all the while competing interests work at counter purposes, sounds something akin to herding cats.

Cooper et al. (2010) claim that, on average, PAC contributions do not appear to affect the voting patterns on key issues for the politically connected firm. Also, Magee (2000: 374) finds that PAC contributions “do not significantly affect the policy positions adopted by candidates on four of the five issues analyzed”.

2.2.2 What is lobbying?

Keffer and Hill (1997) observe that lobbying produces a negative perception in the media. The general public believes that lobbying influences legislators at the expense of the societal welfare. In fact, lobbying is just “an attempt to persuade members of city councils, county commissions, state legislatures, or the U.S. Congress to support legislation favorable to one’s goals or desires, or to defeat or repeal legislation unfavorable to one’s cause” (Keffer & Hill 1997: 1372). Firms can hire external lobbyists, but the common practice is that companies have internal government affairs representatives. Firms operating in similar environments and sharing similar policy needs can collaborate and pool lobbying efforts. In such cases, lobbying may be more effective than when conducted individually. Legislators are more responsive to policy requirements that represent a larger part of their constituency.

While engaging in CPA through PAC contributions is rather straightforward, lobbying entails a certain level of uncertainty about how it is conducted. How exactly do lobbyists attempt to persuade legislators? Generally, it involves a number of activities including monitoring developments in key legislation for the company and responding when commenting is available, testifying at hearings, and arranging private meetings with officials. Additionally, lobbyists may organize events and conferences at which they invite legislators in the hope of getting the attention of legislators outside of their offices. Moreover, lobbyists do not waste the opportunity to meet with officials during
lunch or dinner meetings. The ultimate purpose of lobbyists is to create a long-lasting relationship with the legislator. Once that occurs, the lobbyist takes advantage of the trust established to share his expertise and opinions on current issues in the industry (Keffer 1997).

The formal and informal meetings described above are not the only means of persuading officials into legislating favorable laws and regulation. Lobbyists also reinforce these relationship using PAC contributions and constituent events and movements. Trade associations often prompt members to contact their representatives, which is common practice in the USA. Lobbyists use different marketing channels, such as rallies, campaigns, and online ads to attract the attention of both constituents and legislators. However, not all practices are deemed acceptable or ethical. Table 1 provides a classification of major lobbying practices according to their ethical stand.

<table>
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<th>Table 1. Classification of major lobbying practices</th>
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<tr>
<td><strong>&quot;Good&quot;</strong></td>
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<tr>
<td>Contact officials by letters, phone calls</td>
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<tr>
<td>Personal visits</td>
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<tr>
<td>Grassroots movement via direct mail, phone calls</td>
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<tr>
<td>Personal meetings</td>
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<tr>
<td>Educate staff via similar methods</td>
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<tr>
<td>Conduct briefings to which officials and staff are invited</td>
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<tr>
<td>Host educational field trips to employer sites, farms, towns, etc., to impart knowledge of issues to staff or officials</td>
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<tr>
<td>Fundraisers conducted within FEC guidelines</td>
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Source: Keffer (1997)
Another source of success for lobbyists is relationships they have formed in prior positions. The concept of revolving door refers to former legislators joining the business arena, or to businesspeople joining politics. The Center for Responsive Politics (2015) claims that “while officials in the executive branch, Congress and senior congressional staffers spin in and out of the private and public sectors, so too does privilege, power, access and, of course, money”. The pharmaceutical industry has reported 1,137 lobbyists for 2015, of which 712 (62.6%) were revolvers, i.e. individuals with prior working experience in the legislative field. Furthermore, LaPira and Herschel (2013) claim that many revolvers prefer to operate “under the radar” and avoid publicity. The authors claim that, in fact, the number of revolvers who are not transparent about their clients is much larger than those who are, suggesting that “lobbying disclosure reports provide only a partial view of policy influence in Washington” (LaPira & Herschel 2013:1).

Research has produced inconclusive results about the societal effects of the revolving door phenomenon. DeHaan, Koh, Kedia, and Rajgopal (2014) analyze the effect of future job opportunities in the private sector on the behavior of SEC lawyers. They find that lawyers leaving SEC to join firms that defend clients against SEC display more aggressive enforcement effort while at the SEC. The results suggest that these lawyers prefer to showcase their expertise motivated by prospective job opportunities. DeHaan et al. (2014: 36) conclude that “on average, revolving door incentives do not appear to undermine the prosecution of civil cases against accounting misrepresentations”.

By contrast, Vidal, Draca, and Fons-Rosen (2012) regard the revolving door phenomenon as a major concern for the legislative process. They investigate how lobbyists with experience in public offices benefit from personal connections acquired while serving. The study finds that “lobbyists with experience in the office of a US Senator suffer a 24 percent drop in generated revenue when that Senator leaves office” (Vidal et al. 2012: 1). The drop in revenue is higher for more senior and influential politicians, suggesting that lobbyists sell access to legislators. Luechinger and Moser (2014) examine how investors react to political appointments of business affiliated individuals and appointments of ex-legislators to corporate positions. They record a positive stock market reaction to these announcements, suggesting that “concerns over
conflicts of interest created by the revolving door seem justified, even in a country with strong institutions” (Luechinger and Moser 2014: 1).

As discussed in the beginning of section 2.2, lobbying expenditures are much larger than PAC contributions. Furthermore, the health sector lobbies most heavily, which justifies my analysis of the pharmaceutical industry. Figure 3 below illustrates the relative lobbying spending for different economy sectors in 2015.
3 CPA AND FINANCIAL PERFORMANCE

This chapter will use theory from the fields of strategy, management, and organizational theory in an attempt to explain the discrepancies in prior research related to the relationship between CPA and firm’s financial performance. I will firstly provide theoretical support for a positive association between political investments and financial performance. Secondly, I will examine theories that predict a neutral relationship, and thirdly, I will consider the literature that anticipates that CPA negatively affects financial performance. Lastly, based on the literature reviewed, I will develop my hypotheses.

3.1 Positive relationship

Most of the strategy literature holds that “CPA is a useful tool to improve a firm’s financial performance” (Hadani & Schuler 2013: 167, Bonardi et al. 2005, Hillman et al. 2004, Lux et al. 2011). According to this view, there are multiple direct and indirect ways in which CPA may positively affect financial performance. Hadani and Schuler (2013: 167) claim that “CPA may directly lead to profitable opportunities for a firm, such as by securing government contracts, permits to operate, or by limiting the ability of competitors to compete in a firm’s product-markets”. Indirectly, CPA may generate benefits for the politically active company by changing the regulatory environment to promote its interests or to minimize the effects of unfavorable regulation (Epstein 1969). I will further discuss three theories that predict a positive association between CPA and a firm’s financial performance, as described in Hadani and Schuler (2013): industrial-organization economics, resource dependence theory, and class unity theory.

3.1.1 Industrial-organization economics

Industrial-organization economics holds that CPA and industry profitability are positively associated (Esty & Caves 1983, Stigler 1971). The theory argues that CPA is used as a tool to favorably shape industry regulation. Rose (1985) finds that firms in the motor carrier industry recorded monopoly profits as a result of using CPA to curb regulation to limit competition. Similarly, Dean, Vryza, and Fryxell (1998) find that PAC contributions create barriers to entry for new firms in the manufacturing industry, thus improving the profitability of the entire industry. The authors argue that “PACs
enable groups of firms to pursue corporate agendas at the expense of the social good, [promoting] socially suboptimal outcomes” (Dean et al. 1998: 135). In a similar manner, Schuler (1996) studies the use of CPA in the steel industry. The author finds that “the industry”s largest firms dominated the politics surrounding trade protection in order to capture expected benefits from trade protection or to postpone high downsizing costs” (Schuler 1996: 720). Furthermore, the study reveals that, across time, large firms consistently engaged in CPA, suggesting that they were expecting net benefits from these political investments.

Grier et al. (1994) investigate political leverage at industry level, as described by PAC contributions, and find that industries that have higher potential benefits from government intervention are more politically active. However, political activity and the realization of these benefits are restrained by free-riding problems and costs of cooperation in each industry.

3.1.2 Resource dependence theory

The resource dependence theory takes a firm-level approach, as opposed to the industrial-organization economics theory, and argues that CPA is a useful means of enhancing a firm”s profitability (Hadani & Schuler 2013). In the light of increased competition due to globalization and technological advances, companies explore various sources of competitive advantage. Public policy is an important source of competitive advantage, since the government prescribes commercial regulation, thus determining the structure and size of the markets. Therefore, firms recognize the importance of creating and maintaining ties with legislators (Schuler et al. 2002). Firms that are particularly exposed to government regulation, such as firms that require permits and licenses to operate, or those which derive a substantial part of their sales from government procurement, have an incentive to use CPA as a means to influence policy in an advantageous manner, i.e. “bridge” with the political environment, or to protect against harmful regulation, i.e. “buffer” from the regulatory environment (Meznar & Nigh 1995). For example, Cho, Patten, and Roberts (2006) examine US environmentally sensitive firms and find that firms with poorer environmental performance spend more
on CPA, suggesting that firms use CPA strategically in order minimize environmental policy pressure.

Research on the resource dependency theory found evidence to support the following: 1) CPA is positively associated with the degree of governmental dependency (Meznar & Nigh 1995, Hillman, Withers & Collins 2009, Hansen & Mitchell 2000, Drope & Hansen 2006); 2) companies operating in similar regulatory environments are likely to use the same CPA strategies (Mullery, Brenner & Perrin 1995, Blumentritt & Nigh 2002); 3) politically connected firms enjoy benefits from political ties (Shaffer et al. 2000, Goldman et al. 2009, Myers 2005).

Such benefits can accrue in different forms. Houston et al. (2014) find that politically connected firms enjoy a lower cost of debt. Additionally, politically connected firms are more likely to retain their favorable credit rating than similar non-connected firms after the loan has been granted. The authors argue that lenders acknowledge the benefits associated with politically connected firms and include these factors in their pricing process. Moreover, the study documents a stronger negative relationship between CPA and cost of debt for firms with stronger dependence on government contracts and for firms which operate in competitive environments. This result is consistent with the resource dependence theory, which predicts that firms take political action to minimize environmental dependency and decrease uncertainty (Hillman et al. 2009).

Another benefit that can stem from political ties is decreased monitoring. Correia (2014) finds that politically connected firms are less likely to be prosecuted by SEC and face lower penalties conditional on prosecution. The author argues that the findings may be the result of politicians exercising pressure on the SEC in order to maintain a mutually beneficial relationship. It may also be that the SEC interprets political investments as a propensity to challenge the enforcement. Wu, Johan, and Rui (2014) report similar results for the Chinese market. The authors document a lower incidence of enforcement action against fraud for politically connected firms. The business ethics implication is that government agencies may be susceptible to pressure from lobbied politicians.
3.1.3 Class unity theory

Class unity theory, first advanced by Useem (1984) and revisited by Dreiling and Darves (2011), posits that CPA may be positively associated with financial performance. Useem (1984) argues that the US exhibits class unity within an elite circle of businesspeople and politicians who shape public opinion and policy. Affluent and influential individuals in the business and political arena form social ties within the group, which are later used to promote personal interests. Politicians legislate favorable policy in exchange for financial support, information, jobs in the private sphere, and other perquisites (Clawson, Neustadtl & Veller 1998). As such, CPA, in the form of lobbying and PAC contributions, as well as network-based measures, constitute a valuable way of building and strengthening these social relationships in order to maintain a favorable regulatory environment, which, in turn, supports firm financial performance.

Dreiling and Darves (2011) provide empirical support for the class unity theory and claim that it explains well the patterns of CPA and the existing political coordination amongst firms. The authors show that the class aspect of CPA influences political participation beyond organizational and economic interests. Class unity is exercised in corporate political action through “shared membership in prominent policy networks and board interlocks” (Dreiling & Darves 2011: 1514). Similarly, Burris (2005) finds that interlocking directorates create social ties that promote similar political activity, more so than similar economic interests related to the industry of operation or the location of business segments. Moreover, the study shows that “the politically cohesive effects of directorship ties remain robust even as one moves several links down the chain of indirect ties that connect top corporate officers to one another” (Burris 2005: 249). These findings support the claim that social ties within the circle of business elite promote political cohesion on the corporate arena.

Provided that the business and political elite exchange favors, CPA may benefit firm financial performance when it is in the best interest of managers. For example, managers may use existing social ties to pursue personal interests, which are not necessarily firm profit maximization. Another implication is that small firms” representatives may be excluded from this elite circle, or not be able to easily access key individuals. In this
case, benefits from CPA as explained by the class unity theory may accrue only to large, influential firms.

Based on the three theories discussed above, which are not mutually exclusive, I expect firms to benefit from CPA. The bottom line can benefit from political action at the industry level, from individual firms’ efforts aimed at minimizing their dependency on policymakers, or from the manager-legislators relationships formed outside of the business arena.

\[ \text{Hypothesis 1: Corporate political activity, as measured by lobbying and PAC contributions, will be positively associated with firms’ financial performance.} \]

3.2 Neutral relationship

While there is prevalent view in the literature that CPA positively affects financial performance, there is a strand of research that suggests that “CPA may be part of a zero-sum political game that is difficult to evaluate accurately” (Hadani & Schuler 2013: 168). This subsection will discuss two theories that maintain that CPA will not have a significant effect on a firm’s financial performance: the political market theory and the behavioral theory. Jointly, these theories suggest that not only does CPA have an insignificant impact on performance, firms engage in CPA for reasons other than profit maximization, which will be outlined below.

3.2.1 Political market theory

The political market theory holds that firms offer politicians financial support (lobbying expenditures and PAC contributions), votes, and information in exchange for favorable policy (Bonardi et al. 2005). According to this view, much like in an economic marketplace, there is a demand side for public policy, represented by companies and various interest groups, and a supply side, represented by elected officials. On the business arena, it is mostly the case that the demanders outnumber the suppliers, thus forcing firms to compete for limited access to bureaucrats (Hillman & Hitt 1999). Increased competition on the demand side implies that “the ability of a given firm to
forward a given public policy agenda is difficult and has a low probability of success” (Hadani & Schuler 2013: 168).

The competition for access to policy makers may distort the motivation for a firm to become politically active (Hadani & Schuler 2013). When facing competitive environments, firms need to make strategic decisions using limited resources in their attempt to record abnormal profits. Game theory principles can be applied to the decision process. Kleindl (1999) argues that firms will eliminate clearly dominated strategies or alternatives involving strong competitors. In the CPA context, a dominated strategy may be, in fact, a strategy benefiting the entire industry. Firms have the incentive to use limited time with the legislator to lobby for a strategy that only benefits themselves and not their competitors (Olson 1965). The other firms have the incentive to adopt similar strategies; otherwise, lawmakers could enact regulation favoring the competitor. Ultimately, the situation creates incentives to pursue opportunistic strategies, rather than to cooperate towards policy benefiting the entire industry (Colman 1982). The result is that individuals firms” CPA cancel each other out and firms engage in an “arms race”, investing heavily in political action without receiving clear public policy benefits (Gray & Lowery 1997). Research has provided evidence to support this zero-sum game in different policy areas (Lee and Baik 2010, Stratmann 2002, Godwin & Seldon 2002).

Furthermore, when competition amongst policy demanders is high, public policy suppliers are less willing and capable of addressing their concerns (Smith 2000, Bonardi et al. 2005). Research has found that when competition amongst policy demanders is fierce, CPA attempts, such as lobbying and PAC contributions, are less effective. In that case, legislators instead rely more on personal and party ideology to enact laws (Kollman 1998). Since policy demanders are likely to advocate for many different policies, as discussed above, legislators cannot appease all the demanders and are unlikely to grant any one specific demand. Indeed, Baumgartner, Berry, Hojnacki, Leech, and Kimball (2009) find evidence to support the claim that CPA is not associated with public policy outcomes.
3.2.2 Behavioral theory

The second prediction of a neutral relationship between CPA and financial performance comes from the behavioral theory. The behavioral theory recognizes that managers “managers have cognitive limitations, biases related to organizational traditions or structures, and operate within organizations that imperfectly scan, screen, and process external information” (Hadani & Schuler 2013: 169).

Firstly, lobbying and PAC contributions occur in an environment with multiple actors, information asymmetry, and uncertainty about the link between political investments and policy outcomes (Baumgartner et al. 2009, Hansen 1991, Hart 2004). As such, CPA, as opposed to market strategies, lacks clear feedback and provides an ambiguous cause-effect link (Hadani & Schuler 2013). Hart (2004) notes that many executives in charge with CPA admit to relying on guesswork and that it is difficult to quantify their efforts in terms of CPA results.

Secondly, firms establish so called “standard operating procedures”, or SOPs, to cope with uncertainty (Hadani and Schuler 2013). These SOPs assign a specific response for different situations. CPA may be a SOP designed to address policy uncertainty. Moreover, firms may engage in CPA without questioning the efficacy of the investment, instead, CPA will be institutionalized and maintained unless clearly proven to lead to inferior performance (Hart 2004).

Taken together, political marketplace theory and behavioral theory suggest that managers may engage in CPA for reasons other than profit maximization. First, they can make political investment as a reaction to their competitors’ CPA. Second, they can engage in CPA simply because the firm has been doing so for a long period without questioning the benefits stemming from CPA. Ultimately, based on these two literatures, I predict an insignificant association between CPA and firm financial performance.

Hypothesis 2: Corporate political activity, as measured by lobbying and PAC contributions, will not be statistically significantly associated with firm financial performance.
3.3 Negative relationship

While there are a number of empirical studies that document a negative relationship between CPA and financial performance, there is little theoretical support to explain the results (Aggarwal et al. 2012, Boubakri et al. 2008, Chaney et al. 2011, Coates 2010, Duchin & Sosyura 2012, Faccio et al. 2006, Igan et al. 2011). Hadani and Schuler (2013) also document a significant negative relationship between political investments and financial performance. The authors refer to the agency theory to provide theoretical support for their findings. I will discuss below the agency theory related arguments that explain a negative relationship between CPA and a firm’s financial performance.

Firstly, incurring political expenditures may be an indicator of general managerial propensity to engage in risky decision making. Igan et al. (2011: 5) find that lobbying by financial institutions was “associated ex ante with more risk-taking and ex post with worse performance”. The authors interpret their findings as evidence that lobbying during relaxed regulation prior to the financial crisis allowed lenders who lobbied aggressively to take advantage of the regulation and engage in riskier lending. Interestingly, lenders who engaged in lobbying benefited more from bailouts, either because the crisis has affected them to a larger extent, or because they had political ties.

These findings are consistent with prior research on politically connected firms and probability of receiving a bailout (Faccio 2006, Faccio et al. 2006). Igan et al. (2011) further hypothesize that these results were possible due to lenders having specialized in serving risky clients, or having been too optimistic, or having used lobbying in order to prevent tighter regulation that might have restricted their risky behavior. Additionally, it may be the case that certain lobbyists from the financial industry have engaged in CPA for the purpose of promoting regulation that allowed them to exploit risky opportunities, or that, in an extreme view, lobbyists were pursuing preferential treatment from regulators, such as increased probability of receiving a bailout, or lower scrutiny.

Correia (2014: 241) finds that, indeed, “politically connected firms on average are less likely to be involved in SEC enforcement actions and face lower penalties if they are prosecuted by the SEC”. If lobbyists are in fact motivated by the probability of receiving
preferential treatment and rely on political connections in order to engage in risky behavior, then there is a moral hazard problem involved.

Secondly, it may be that managers who engage in CPA do not sufficiently evaluate the investment, which may turn to be unproductive or of poor quality (Hadani and Schuler 2013). Bonardi (2008) shows that market and nonmarket strategies, such as political investments, are substitutes rather than complements. Since engaging in nonmarket activities implies committing scarce internal resources, such as funds and human resources, it may be that “maintaining nonmarket commitments would jeopardize the firm”’s market activities” (Bonardi 2008: 169). It is likely that managers, when facing the trade-off between market and nonmarket activities, will encounter difficulties in deciding how to distribute scarce internal resources. Given cognitive limitations, CPA investments may be overvalued by managers. Bhuyan (2000) attempts to measure the welfare loss generated by oligopolistic industries engaged in CPA. The study shows that CPA investments are associated with opportunity costs and social welfare losses “compared with other investments a firm might make in technology, human resources, and research and development” (Hadani & Schuler 2013: 176).

Thirdly, CPA may be difficult to monitor by owners, which creates information asymmetries (Hadani & Schuler 2013). While some political expenditures are relatively easy to track, such as lobbying and PAC contributions, other political expenses are not disclosed in financial statements. Igan et al. (2011) argue that CPA creates information asymmetries between owners and managers, which, in turn, are associated with moral hazard issues. Several other studies document an increase in information asymmetry between owners and managers due to CPA. Chaney et al. (2011) find that firms that engage in CPA report lower quality earnings than firms that are not politically connected. The authors provide three explanations for their results. First, it may be that executives purposefully conceal benefits derived from CPA in order to gain at shareholders” expense. Second, if politically connected firms are not penalized for low quality reports, managers have an incentive to not invest sufficient time and effort into depicting the firm”’s true economic state. Lack of care and managerial attention is detrimental to accounting information quality and increases information asymmetry.
Third, it may be the case that firms with low quality information are more likely to engage in CPA.

Hadani (2012: 948) finds that institutional ownership is negatively and significantly associated with CPA, suggesting that, given the nature of CPA, “institutional investors will likely bear higher monitoring costs and be exposed to higher agency costs”. According to the author, these findings support the claim that CPA exacerbates the agency conflict by increasing information asymmetry. Yu and Yu (2011) find that politically connected fraudulent firms enjoy a lower probability of being detected by regulators and evade detection, on average, 117 days longer. The authors claim that this delay “leads to a greater distortion in resource allocation during fraudulent periods” (Yu and Yu 2011: 1865). During the delay, managers take advantage of the inside information and sell their shares before the fraud is exposed.

Fourthly, managers may be motivated by personal reasons, rather than profit-maximization to engage in CPA, such as ideological beliefs and status building. Ansolabehere et al. (2002) find that certain groups that lobby are motivated by ideological and partisan reasons, and not necessarily by profit maximization. The desire to voice, or to express one’s view provided the opportunity, is stressed by Avery and Quinones (2002). Managers may use funds they control, but do not own for this particular purpose. Mimicking is another important personal driver of CPA, which, however, may not be an efficient strategy for corporate performance (Hadani 2012, Staw & Epstein 2000).

Additionally, studies that associate CPA with executive benefits, such as pay and tenure, also support the claim that managers may be driven by personal incentives when engaging in CPA. Arlen and Weiss (1995: 325) study US corporate tax and argue that “managers' lack of interest against the tax results from the fact that managers and shareholders pursue different objectives”. The study finds that some managers may oppose the elimination of double taxation because trapping funds in the corporation allows them to pursue personal interests, from which they benefit at the expense of the owners.
Furthermore, Coates (2012: 557) argues that after the US government allowed for the formation of super PACs, i.e. uncapped campaign contributions, “political activity correlates negatively with measures of shareholder power, positively with signs of agency costs, and negatively with shareholder value”. Moreover, the author shows that 11 per cent of the CEOs active during the Supreme Court ruling who retired the next year obtained political positions. This is to suggest that, while in their positions as CEOs, they might have forged valuable political alliances at the expense of shareholders.

Based on the agency theory, I construct my third hypothesis:

*Hypothesis 3: Corporate political activity, as measured by lobbying and PAC contributions, will be negatively associated with firm financial performance.*
4 DATA AND METHODOLOGY

4.1 Data and descriptive statistics

The dataset focuses on publicly traded pharmaceutical firms in the US in the period 1998-2013. I obtain financial data from COMPUSTAT\(^5\) and CPA expenditure figures from the Center for Responsive Politics (CRP)\(^6\). The Lobbying Disclosure Act of 1995 requires firms to disclose the amount spent on lobbying and the issues they target (Chen et al. 2010). The lobbying data is available from 1998, thus determining my period of analysis. Since CRP does not include firm identifiers, I had to manually merge the CPA data with COMPUSTAT data in order to get the final dataset, which includes 9288 firm-year observations. In order to insure that both financial and CPA data pertain to the same period, I have removed companies with non-calendar fiscal year end, which has reduced the sample to 7,076 firm-year observations. After windsoring the dependent variables analyzed, net income (NI) and income before extraordinary items (IBEI), the final dataset includes 6936 firm-year observations.

Table 2 provides the descriptive statistics of the variables of interest for the entire sample. Additionally, Tables 3 and 4 provide a breakdown of the analysis by exploring firms that are politically active versus those that are not. The differences between the two groups are visible and consistent with previous claims that politically connected firms tend to be larger and more profitable. In this sample, mean (median) total assets, as a measure of size, are 10,448.77 (1,623.38) million USD for CPA firms as opposed to 326.26 (37.31) million USD for firms which do not have political expenditures. The same trend is apparent when looking at the financial performance measures – NI and IBEI. For NI, the mean (median) is 952.73 (75.2) million USD for CPA firms and 3.31 (-9.95) million USD for companies that do not have political expenditures. Similarly, mean (median) IBEI for CPA firms is 924.68 (64.25) million USD for politically active firms, and 2.88 (-10.02) million USD for firms that do not incur political expenses.

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\(^5\) SIC code 283
\(^6\) Available at https://www.opensecrets.org/
Table 2. Descriptive statistics for the entire sample.

<table>
<thead>
<tr>
<th></th>
<th>CPA Expenditure</th>
<th>Cumulative CPA</th>
<th>Total Assets</th>
<th>Net Income</th>
<th>IBEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.116</td>
<td>0.658</td>
<td>1142.069</td>
<td>79.824</td>
<td>77.167</td>
</tr>
<tr>
<td>Median</td>
<td>0.000</td>
<td>0.000</td>
<td>44.444</td>
<td>-9.382</td>
<td>-9.428</td>
</tr>
<tr>
<td>Maximum</td>
<td>16.260</td>
<td>119.068</td>
<td>132368.000</td>
<td>10570.000</td>
<td>6101.000</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>-309.619</td>
<td>-251.173</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.751</td>
<td>5.104</td>
<td>6093.614</td>
<td>565.264</td>
<td>543.415</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>123.007</td>
<td>206.844</td>
<td>136.521</td>
<td>69.367</td>
<td>58.030</td>
</tr>
<tr>
<td>N</td>
<td>6936</td>
<td>6936</td>
<td>6936</td>
<td>6936</td>
<td>6936</td>
</tr>
</tbody>
</table>

N = number of observations, all amounts in million USD, except N.

Table 3. Descriptive statistics for the firms that engage in CPA.

<table>
<thead>
<tr>
<th></th>
<th>CPA Expenditure</th>
<th>Cumulative CPA</th>
<th>Total Assets</th>
<th>Net Income</th>
<th>IBEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.441</td>
<td>7.762</td>
<td>10448.770</td>
<td>952.732</td>
<td>924.683</td>
</tr>
<tr>
<td>Median</td>
<td>0.270</td>
<td>1.127</td>
<td>1623.383</td>
<td>75.200</td>
<td>64.246</td>
</tr>
<tr>
<td>Maximum</td>
<td>16.260</td>
<td>119.068</td>
<td>132368.000</td>
<td>10570.000</td>
<td>6101.000</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.003</td>
<td>0.003</td>
<td>0.773</td>
<td>-309.619</td>
<td>-224.015</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>2.256</td>
<td>16.368</td>
<td>18314.930</td>
<td>1636.013</td>
<td>1557.003</td>
</tr>
<tr>
<td>Skewness</td>
<td>2.487</td>
<td>3.546</td>
<td>2.806</td>
<td>1.802</td>
<td>1.616</td>
</tr>
<tr>
<td>N</td>
<td>559</td>
<td>559</td>
<td>559</td>
<td>559</td>
<td>559</td>
</tr>
</tbody>
</table>

N = number of observations, all amounts in million USD, except N.

Table 4. Descriptive statistics for the firms that do not engage in CPA.

<table>
<thead>
<tr>
<th></th>
<th>CPA Expenditure</th>
<th>Cumulative CPA</th>
<th>Total Assets</th>
<th>Net Income</th>
<th>IBEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0</td>
<td>0</td>
<td>326.255</td>
<td>3.306</td>
<td>2.875</td>
</tr>
<tr>
<td>Median</td>
<td>0</td>
<td>0</td>
<td>37.305</td>
<td>-9.951</td>
<td>-10.019</td>
</tr>
<tr>
<td>Maximum</td>
<td>0</td>
<td>0</td>
<td>38488.000</td>
<td>5668.000</td>
<td>5668.000</td>
</tr>
<tr>
<td>Minimum</td>
<td>0</td>
<td>0</td>
<td>0.000</td>
<td>-251.173</td>
<td>-251.173</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0</td>
<td>0</td>
<td>1665.012</td>
<td>201.589</td>
<td>201.333</td>
</tr>
<tr>
<td>Skewness</td>
<td>NA</td>
<td>NA</td>
<td>11.203</td>
<td>15.035</td>
<td>15.101</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>NA</td>
<td>NA</td>
<td>165.056</td>
<td>295.319</td>
<td>296.990</td>
</tr>
<tr>
<td>N</td>
<td>6377</td>
<td>6377</td>
<td>6377</td>
<td>6377</td>
<td>6377</td>
</tr>
</tbody>
</table>

N = number of observations, all amounts in million USD, except N.
Table 5 examines yearly changes in the number of politically active firms and changes in the amounts of political expenditures. Several points are worth mentioning. One can note an increase in the share of CPA firms in the years leading to the financial crisis and a slight decrease in the years following it. The maximum share of firms that engage in CPA in the pharmaceutical industry in the sample is 9.98% in 2009, whereas the minimum share of politically active firms is at 5.5% in 2002.

Next, CPA expenditure ranges from 3,000 USD in 1998 to 16.26 million USD in 2007. The highest mean CPA is recorded in 2010 at 1.804 million USD, and lowest is documented in 1998 at 1.124 million USD. Unlike the share of firms that engage in CPA, mean CPA figures do not exhibit a distinguishable trend around the financial crisis of 2008, which can have at least two possible explanations. Firstly, politically active firms are generally more profitable and have higher levels of slack resources than firms that do not engage in CPA, suggesting that the financial crisis has not hindered their ability to continue making political expenditures (Schuler & Rehbein 1997, Kim 2008).

Secondly, while CPA firms may have been affected by the crisis, CPA expenditures could be sticky and firms that normally incur political costs might continue to do so even during the crisis. Firms may regard lobbying or campaign contributing as a standard operating procedure (SOP), that is, as a pattern of decision making under uncertainty (Hadani & Schuler 2013). Especially in highly regulated industries, where a large number of competitors lobby or contribute to PACs, these routines are “institutionalized, and maintained unless clearly seen to lead to an inferior outcome” (Hadani & Schuler 2013: 169). Determining which explanation best fits mean CPA patterns in our sample is beyond the purpose of this paper. Since the two theories are not mutually exclusive, it may be that both explain to some extent the change in mean CPA over time relative to the change in financial performance. The Analyses section will focus in more depth on the relationship between political expenditure and financial performance.
Table 5. CPA analysis per year.

Panel A. Number of firms that engage in CPA.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total firms</th>
<th>CPA firms</th>
<th>Non-CPA firms</th>
<th>Share of CPA firms</th>
<th>Mean CPA</th>
<th>Median CPA</th>
<th>Max CPA</th>
<th>Min CPA</th>
<th>Change from previous year(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>387</td>
<td>30</td>
<td>357</td>
<td>7.75%</td>
<td>1.124</td>
<td>0.160</td>
<td>5.463</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>396</td>
<td>27</td>
<td>369</td>
<td>6.82%</td>
<td>1.646</td>
<td>0.280</td>
<td>6.789</td>
<td>0.040</td>
<td>46.42%</td>
</tr>
<tr>
<td>2000</td>
<td>390</td>
<td>24</td>
<td>366</td>
<td>6.41%</td>
<td>1.797</td>
<td>0.544</td>
<td>7.562</td>
<td>0.016</td>
<td>9.17%</td>
</tr>
<tr>
<td>2001</td>
<td>401</td>
<td>29</td>
<td>372</td>
<td>7.23%</td>
<td>1.426</td>
<td>0.580</td>
<td>6.500</td>
<td>0.020</td>
<td>-20.66%</td>
</tr>
<tr>
<td>2002</td>
<td>418</td>
<td>23</td>
<td>395</td>
<td>5.50%</td>
<td>1.517</td>
<td>0.620</td>
<td>7.480</td>
<td>0.010</td>
<td>6.40%</td>
</tr>
<tr>
<td>2003</td>
<td>439</td>
<td>28</td>
<td>411</td>
<td>6.38%</td>
<td>1.525</td>
<td>0.350</td>
<td>5.320</td>
<td>0.020</td>
<td>0.50%</td>
</tr>
<tr>
<td>2004</td>
<td>461</td>
<td>30</td>
<td>431</td>
<td>6.51%</td>
<td>1.489</td>
<td>0.290</td>
<td>5.753</td>
<td>0.020</td>
<td>-2.37%</td>
</tr>
<tr>
<td>2005</td>
<td>467</td>
<td>44</td>
<td>423</td>
<td>9.42%</td>
<td>1.140</td>
<td>0.210</td>
<td>5.720</td>
<td>0.015</td>
<td>-23.38%</td>
</tr>
<tr>
<td>2006</td>
<td>474</td>
<td>46</td>
<td>428</td>
<td>9.70%</td>
<td>1.303</td>
<td>0.200</td>
<td>10.953</td>
<td>0.020</td>
<td>14.26%</td>
</tr>
<tr>
<td>2007</td>
<td>449</td>
<td>42</td>
<td>407</td>
<td>9.35%</td>
<td>1.523</td>
<td>0.270</td>
<td>16.260</td>
<td>0.020</td>
<td>16.85%</td>
</tr>
<tr>
<td>2008</td>
<td>417</td>
<td>39</td>
<td>378</td>
<td>9.35%</td>
<td>1.548</td>
<td>0.492</td>
<td>11.038</td>
<td>0.020</td>
<td>1.68%</td>
</tr>
<tr>
<td>2009</td>
<td>411</td>
<td>41</td>
<td>370</td>
<td>9.98%</td>
<td>1.362</td>
<td>0.240</td>
<td>12.440</td>
<td>0.030</td>
<td>-12.03%</td>
</tr>
<tr>
<td>2010</td>
<td>415</td>
<td>37</td>
<td>378</td>
<td>8.92%</td>
<td>1.804</td>
<td>0.442</td>
<td>11.264</td>
<td>0.020</td>
<td>32.45%</td>
</tr>
<tr>
<td>2011</td>
<td>460</td>
<td>40</td>
<td>420</td>
<td>8.70%</td>
<td>1.217</td>
<td>0.210</td>
<td>10.000</td>
<td>0.010</td>
<td>-32.53%</td>
</tr>
<tr>
<td>2012</td>
<td>492</td>
<td>40</td>
<td>452</td>
<td>8.13%</td>
<td>1.324</td>
<td>0.210</td>
<td>11.407</td>
<td>0.008</td>
<td>8.78%</td>
</tr>
<tr>
<td>2013</td>
<td>459</td>
<td>38</td>
<td>421</td>
<td>8.28%</td>
<td>1.579</td>
<td>0.350</td>
<td>9.800</td>
<td>0.010</td>
<td>19.27%</td>
</tr>
</tbody>
</table>

CPA descriptive statistics are in million USD, except percentage figures.
\(^a\) Refers to yearly change in mean CPA.

Table 7 offers a decomposition of yearly CPA amounts into lobbying expenses and PAC contributions. Since PAC contributions are reported on an election cycle basis, rather than on an annual basis, odd years lack information about PAC contributions, thus firms that engage in CPA only do so through the means of lobbying in those particular years. For that reason, mean lobbying expense will correspond to mean CPA expenditure for those years. Panel A shows that politically active firms mostly resort to lobbying as opposed to PAC contributions. For the analyzed sample, only four firms engaged in CPA just through PAC contributions, whereas an overwhelming majority utilized either both means, or just lobbying. Similarly, Panel B shows that mean PAC contributions are
smaller than mean lobbying expenditures. Mean lobbying expenses are from four to eight times higher than mean PAC contributions.

This evidence is consistent with the theory discussed in chapter 2, i.e. mean lobbying expenditures can be almost eight times greater than mean PAC contributions. However, despite the complementarity between PAC contributions and lobbying previously discussed, one can notice that, in this sample, only 1.95% to 6.61% of the firms in the pharmaceutical industry both lobby and make campaign contributions. Ansolabehere et al. (2002) provide four explanations as to why a firm, provided that PAC contributions buy access to legislators, would resort to only one means of engaging in CPA.

Firstly, firms may face resource constraints that prevent them from both lobbying and making PAC contributions. Setting up a PAC or a lobbying operation is associated with large initial fixed costs that not all firms may afford. Moreover, since market and non-market strategies, such as lobbying and PAC contribution, compete for scarce internal resources, they are substitutes rather than complements (Bonardi 2008). As such, the decision to maintain one or more political strategies is influenced by the existence of market strategies and opportunities.

Secondly, firms may have substitutes for PAC contributions, such as information or favorable location. It may be that these resources are valuable for legislators and they are willing to listen to the firm’s policy requests, thus making PAC contributions redundant. Thirdly, some firms may have strong positions on key policy issues that are already known by legislators, thus such firms channel their funds through PAC contributions, rather than lobbying. And fourthly, setting up a PAC depends on the business horizon of the firm. A company that would like to address a current hot policy issue on the legislators’ agenda may not wish to make such a long-term commitment as setting up a PAC.
### Table 6. Ordinary and Spearman rank correlations

<table>
<thead>
<tr>
<th></th>
<th>CPA Expenditure</th>
<th>Cumulative CPA</th>
<th>NI</th>
<th>IBEI</th>
<th>Total Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPA Expenditure</td>
<td>1</td>
<td>0.877</td>
<td>0.192</td>
<td>0.192</td>
<td>0.380</td>
</tr>
<tr>
<td>Cumulative CPA</td>
<td>0.865</td>
<td>1</td>
<td>0.180</td>
<td>0.179</td>
<td>0.392</td>
</tr>
<tr>
<td>NI</td>
<td>0.696</td>
<td>0.700</td>
<td>1</td>
<td>0.989</td>
<td>-0.036</td>
</tr>
<tr>
<td>IBEI</td>
<td>0.694</td>
<td>0.684</td>
<td>0.982</td>
<td>1</td>
<td>-0.041</td>
</tr>
<tr>
<td>Total Assets</td>
<td>0.789</td>
<td>0.785</td>
<td>0.863</td>
<td>0.859</td>
<td>1</td>
</tr>
</tbody>
</table>

*a* Ordinary correlations in the bottom left-corner, Spearman rank correlations in the top-right corner.

### Table 7. Yearly CPA decomposed into lobbying expenses and PAC contributions.

<table>
<thead>
<tr>
<th>Year</th>
<th>Both PAC and Lobby</th>
<th>Only PAC</th>
<th>Only Lobby</th>
<th>None</th>
<th>Mean PAC</th>
<th>Mean Lobby</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>11 (2.84%)</td>
<td>2 (0.52%)</td>
<td>17 (4.39%)</td>
<td>357 (92.95%)</td>
<td>0.177</td>
<td>1.122</td>
</tr>
<tr>
<td>1999</td>
<td>0</td>
<td>0</td>
<td>27 (6.82%)</td>
<td>369 (93.18%)</td>
<td>0</td>
<td>1.646</td>
</tr>
<tr>
<td>2000</td>
<td>12 (3.08%)</td>
<td>1 (0.26%)</td>
<td>11 (2.82%)</td>
<td>366 (93.85%)</td>
<td>0.211</td>
<td>1.833</td>
</tr>
<tr>
<td>2001</td>
<td>0</td>
<td>0</td>
<td>29 (7.23%)</td>
<td>372 (92.77%)</td>
<td>0</td>
<td>1.426</td>
</tr>
<tr>
<td>2002</td>
<td>11 (2.63%)</td>
<td>0</td>
<td>12 (2.87%)</td>
<td>395 (94.50%)</td>
<td>0.251</td>
<td>1.397</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>0</td>
<td>28 (6.38%)</td>
<td>411 (93.62%)</td>
<td>0</td>
<td>1.525</td>
</tr>
<tr>
<td>2004</td>
<td>9 (1.95%)</td>
<td>0</td>
<td>21 (4.56%)</td>
<td>431 (93.49%)</td>
<td>0.284</td>
<td>1.403</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
<td>0</td>
<td>44 (9.42%)</td>
<td>423 (90.58%)</td>
<td>0</td>
<td>1.140</td>
</tr>
<tr>
<td>2006</td>
<td>13 (2.74%)</td>
<td>0</td>
<td>33 (6.96%)</td>
<td>428 (90.30%)</td>
<td>0.252</td>
<td>1.232</td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>0</td>
<td>42 (9.35%)</td>
<td>407 (90.65)</td>
<td>0</td>
<td>1.523</td>
</tr>
<tr>
<td>2008</td>
<td>13 (3.12%)</td>
<td>0</td>
<td>26 (6.24%)</td>
<td>378 (90.65)</td>
<td>0.193</td>
<td>1.484</td>
</tr>
<tr>
<td>2009</td>
<td>0</td>
<td>0</td>
<td>41 (9.98%)</td>
<td>370 (90.02%)</td>
<td>0</td>
<td>1.362</td>
</tr>
<tr>
<td>2010</td>
<td>15 (6.61%)</td>
<td>0</td>
<td>22 (5.30%)</td>
<td>378 (91.08)</td>
<td>0.232</td>
<td>1.710</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>0</td>
<td>40 (8.70%)</td>
<td>420 (91.30)</td>
<td>0</td>
<td>1.217</td>
</tr>
<tr>
<td>2012</td>
<td>11 (2.24%)</td>
<td>1 (0.20%)</td>
<td>28 (5.69%)</td>
<td>452 (91.87%)</td>
<td>0.165</td>
<td>1.307</td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>0</td>
<td>38 (8.28%)</td>
<td>421 (91.72%)</td>
<td>0</td>
<td>1.579</td>
</tr>
</tbody>
</table>

In parentheses are values as percentages of total firms for the year.

Mean values are in million USD and refer to CPA firms.
4.2 Measures

*Dependent variables*

I use two measures of firm financial performance: 1) net income (NI) and 2) income before extraordinary items (IBEI). I chose these two bottom-line accounting figures instead of earnings before interest, tax, amortization and depreciation because CPA may affect a politically active firm’s effective tax rates and interest rates (Chen et al. 2010). Furthermore, IBEI, as opposed to net income, removes the effects of non-recurring events.

*Independent variables*

Corporate political activity (CPA) represents the dollar amount of political investments and includes expenditure on lobbying and campaign contributions (PAC contributions). Lobbying firms must file quarterly reports with the Secretary of the Senate’s Office of Public Records (SOPR) (Correia 2014). The CRP reports annual numbers for each firm and makes retrospective adjustments if there are any subsequent changes or corrections (Chen et al. 2010). The lobbying expense accounts for both in-house and external lobbying, which is performed by third party lobbyists on the behalf of the company. Unlike PAC contributions, lobby amounts are not capped, which partly explains the divergence between mean lobbying spending and mean PAC contributions illustrated in Table 7. The CRP also collects PAC contribution amounts from the Federal Election Committee (FEC) and from the Internal Revenue Service (IRS). Contributions are capped at $10,000 per candidate per election cycle ($5,000 contributed towards a primary election and $5,000 contributed towards a general election) (Cooper et al. 2010). However, the numbers are not reported annually, but rather on election cycle basis, that is, two years in the US. Rather than analyzing these items separately, this paper looks at the aggregate number, since both lobbying and campaign contributions are indicative of the same type of corporate behavior and of the same determinants discussed in chapter two.

Cumulative corporate political activity (CCPA) refers to the company’s cumulative expenditure on lobbying and PAC contributions across the 1998-2013 period. The added
value of having a cumulative measure of CPA stems from its ability to capture the effects of a long term relationship between the firm and legislators. A firm that has been lobbying a certain government agency for a long period of time has probably developed a successful lobbying strategy with that agency. Similarly, legislators also benefit from a long lasting relationship by securing financial support, votes, and information on constituency preferences (Bonardi et al. 2005). Moreover, a firm can use campaign contributions to gain access to legislators in order to lobby them (Mathur & Singh 2011, Correia 2014, Ansolabehere et al. 2002, Milyo et al. 2000). This benefit would also be captured by a cumulative measure of political investment.

Control variables

I use the following control variables: 1) first and second lags of financial performance (NI or IBEI, depending on the model in order to capture autoregressive effects; 2) firm size (total assets); and 3) year dummies. Controlling for industry effects is unnecessary in this case, since I conduct my analysis on a single industry.

4.3 Analyses

My final dataset is unbalanced because companies have various degrees of year observations. In order to analyze unbalanced data, prior research suggests using restricted maximum likelihood estimators, which are “preferable to the sum of squares estimators when dealing with unbalanced data, and [are] comparable to using a traditional panel data approach” (Hadani & Schuler 2013: 172).

However, there is an endogeneity problem involved. As discussed in chapter two, the propensity to engage in CPA is influenced by certain firm characteristics, such as size and profitability. For this reason, it may be problematic to include CPA alongside control variables described in the previous section, i.e. past firm performance and total assets as a measure of size. To control for this risk, I use a two-stage regression approach. The first stage regression includes firm characteristics that likely affect CPA, as described in chapter two. The regression is modeled as follows:
I run this model four times: 1) for CPA using lagged NI as firm performance measure; 2) for cumulative CPA (CCPA) using lagged NI as firm performance measure; 3) for CPA using lagged IBEI as firm performance measure; 4) for CCPA with lagged IBEI. The other variables remained the same.

In order to ensure that lagged firm performance and firm size maintain an exogenous nature, I have used residual values of CPA and CCPA in the second stage regression:

\[
CPA \text{ or CCPA}_{it} = \\
\beta_1 \text{Year (dummies)} + \beta_2 \text{Performance (Net Income or IBEI)}_{it-1} + \\
\beta_3 \text{Firm Size}_{it-1} + \varepsilon_{it}
\]

Similarly, the model has been run four times to reflect the different measures of political involvement (CPA and CCPA) and the two different measures of firm financial performance (NI and IBEI). Results will be presented and discussed in chapter 5.

My model closely follows the model used in Hadani and Schuler (2013). The choice to use the same econometric methods is justified by the fact that both studies analyze the effect of CPA (same definition) on financial performance. My study, though, has a smaller scope and focuses only on the pharmaceutical industry, in a larger time-span. Running the second model using OLS produces similar results in terms of size and sign of coefficients, but the results lack statistical significance. The lack of statistical significance can be interpreted as an indicator that OLS is an inappropriate approach in this case. Firstly, CPA data cannot be negative; it is thus truncated at 0. Secondly, only a small fraction of firm-year observation (559 out of 6,936) registers any CPA activity, thus the CPA series consists mostly of 0 observations. Moreover, the OLS analysis provides a smaller adjusted R-square than the approach specified above.
5 RESULTS

Table 8 illustrates the results of the second-stage regression. Models 1 and 3 examine the effect of CPA, described as the dollar amount of lobbying and PAC contributions, on NI, and IBEI, respectively. Models 2 and 4 investigate the relationship between cumulative CPA and NI, and IBEI, respectively. Hypothesis 1 predicts a positive relationship between CPA and financial performance. Hypothesis 2 predicts a statistically insignificant relationship between CPA and firm financial performance. This study finds that CPA is negatively and significantly associated with firm financial performance for both specifications of political involvement (CPA and cumulative CPA), and for both measures of firm financial performance (NI and IBEI), thus providing support for Hypothesis 3.

<table>
<thead>
<tr>
<th>Table 8. Second-stage regression results.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanatory variable</td>
</tr>
<tr>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Year (Dummies)</td>
</tr>
<tr>
<td>CPA (residuals)</td>
</tr>
<tr>
<td>Cumulative CPA (residuals)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>First lag NI</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Second lag NI</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>First lag IBEI</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Second lag IBEI</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Firm size (TA)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Adjusted R-square</td>
</tr>
</tbody>
</table>

*N = number of observations after adjustments, t-values in parentheses,
* = 0.05 level of significance, ** = 0.01 level of significance, and *** = 0.001 level of significance.
These results challenge the widely held belief that political spending is profitable, at least in the pharmaceutical industry. The findings can be interpreted in the framework of the agency theory to be indicators of risky managerial decision-making, inadequate evaluation of political investments, lack of or insufficient monitoring, or personal managerial consumption of political expenditures.

It is important to note the difference between the magnitudes of CPA coefficients versus cumulative CPA coefficients. While both coefficients are negative and strongly significant, it is discernable that the cumulative CPA is smaller than the CPA one. For models 1 and 2, which use NI as a measure of financial performance, the CPA coefficient is $\beta = -66.77$ ($p < 0.0001$), while for cumulative CPA it is $\beta = -5.53$ ($p < 0.0001$). For models 3 and 4, which use IBEI as a measure of financial performance, the CPA coefficient is $\beta = -37.81$ ($p < 0.0001$), while the coefficient for cumulative CPA is $\beta = -6.86$ ($p < 0.0001$). This can be interpreted as evidence that long-term political investments are more beneficial (or at least, less detrimental) than short term CPA for politically active firms. It may be the case that the relationships formed with officials over a long period can prove to compensate for loss of profit due to managerial personal consumption.

Additionally, this study finds proof that firm size and profitability are important determinants of CPA, as discussed in chapter 2. Table 9 shows that both profitability, as measured by NI and IBEI, and firm size, as measured by total assets, are significantly and positively associated with political investments, i.e. CPA in models 1 and 3, and cumulative CPA in models 2 and 4. While this analysis was not the main focus of this study, it is reassuring to have achieved similar results to what the literature predicts. Moreover, the positive and significant results reinforce the choice of econometric approach. By using residual values of CPA and cumulative CPA in the second-stage analysis, I ensure that “none of the significant predictors of CPA (e.g., lagged performance, firm size […]) repeat themselves in the second-stage regression, maintaining their required exogenous nature with regard to the second-stage regression” (Hadani & Schuler 2013: 173).
Table 9. First-stage regression results.

<table>
<thead>
<tr>
<th>Explanatory variable</th>
<th>Model 1 (CPA)</th>
<th>Model 2 (CCPA)</th>
<th>Model 3 (CPA)</th>
<th>Model 4 (CCPA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year (Dummies)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lagged NI</td>
<td>13.8E-05***</td>
<td>7.19E-04***</td>
<td>13.4E-05***</td>
<td>5.47E-04***</td>
</tr>
<tr>
<td></td>
<td>(8.616)</td>
<td>(6.236)</td>
<td>(8.017)</td>
<td>(4.553)</td>
</tr>
<tr>
<td>Lagged IBEI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.52E-05***</td>
<td>5.4E-04***</td>
<td>6.61E-05***</td>
<td>5.56E-04***</td>
</tr>
<tr>
<td></td>
<td>(41.612)</td>
<td>(47.764)</td>
<td>(42.471)</td>
<td>(49.535)</td>
</tr>
<tr>
<td>Firm size (TA)</td>
<td>0.038</td>
<td>-0.461</td>
<td>0.038</td>
<td>-0.459</td>
</tr>
<tr>
<td></td>
<td>(1.029)</td>
<td>(-1.718)</td>
<td>(1.031)</td>
<td>(-1.707)</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6110</td>
<td>6110</td>
<td>6110</td>
<td>6110</td>
</tr>
<tr>
<td>Adjusted R-square</td>
<td>0.601</td>
<td>0.640</td>
<td>0.601</td>
<td>0.639</td>
</tr>
</tbody>
</table>

N = number of observations after adjustments, t-values in parentheses,
* = 0.05 level of significance, ** = 0.01 level of significance, and *** = 0.001 level of significance.
6 CONCLUSION

This study has investigated the effect of CPA on the financial performance of pharmaceutical US firms in the period 1998-2013. The pharmaceutical industry is especially interesting, since it registers high levels of CPA as compared to other industries and because it is characterized by a highly regulated policy environment. The empirical analysis has revealed a negative association between CPA and firm financial performance, contrary to most research findings.

The claim that CPA is positively associated with firm performance is mainly based on the following three theories: industrial-organization economics, resource dependency, and class unity. The first two theories rely on the rationality assumption of managers, i.e. executives possess the cognitive abilities that allow them to make informed decisions for the benefit of the firm. Class unity holds that the political and business elite have formed social ties that may be used for the benefit of the firm.

By contrast, the political marketplace and behavioral theories assume that firms engage in CPA as a preventive measure against the CPA of other firms, or that managers are not fully rational and are not able to efficiently evaluate political investments. Instead, managers may rely on standard operating procedures and do not doubt the practice of making campaign contributions or lobbying. Ultimately, both these theories predict a neutral relationship between CPA and firm financial performance.

The findings of this study are best explained by the agency theory. The agency theory argues that managers, or agents, are self-interested, and that their interests may not be aligned with those of the owners, or principles. As such, PAC contributions or lobbying may be expressions of agency conflicts: senior executives engage in risky behavior, which is an example of moral hazard; managers do not sufficiently consider political investments, which compete for scarce internal resources; it is difficult for shareholders to monitor political spending, especially spending that does not have disclosure requirements; and lastly, managers may be motivated by personal reasons to engage in CPA, such as empire building, ideological or partisan reasons, or desire to voice.
This study offers several implications for managers and shareholders. Firstly, executives should adjust expectations about returns on political investments. If the firm operates in an industry in which many competitors engage in CPA, it might make sense to follow them just to counteract the policy advantages they may enjoy. However, this preemptive strategy results in a zero-sum game and significant returns on political investments are not very likely (Hadani & Schuler 2013). Secondly, it might be a good idea to engage in CPA for firms in highly regulated industries only if they develop a long-term relationship with the legislators that allows them to provide information in exchange for favorable policy.

Thirdly, shareholders need to investigate the motivation behind CPA. Do managers have in mind the best interests of the company, or are they just following personal, ideological interests? Similarly, the implication for investors is that they might overprice politically connected firms.

6.1 Limitations of the study

This study is subject to several limitations. Firstly, the study would have been more informative had it benefited from using more measures of CPA, such as network-based measures and transaction-based ones that are not disclosed, e.g. political expenditures through trade associations.

In the light of the results, it would have been interesting to investigate the effect of agency-related variables, such as corporate governance variables. It would be useful to assess the impact of having politically connected board members; to analyze the compensation structure of lobbyists; to investigate whether lobbyists have gone through the revolving door; and to analyze the incentives of managers in charge of making political investments.

Additionally, this study has focused only on one industry, making it difficult to generalize results. These findings can only be extrapolated to public pharmaceutical firms.
6.2 Future research

The limitations of this study give rise to future research opportunities. Future studies can investigate the effect of CPA, using extensive traditional and network-based measures, on financial performance, as proxied by alternative measures, such as market performance. Furthermore, future studies could apply the analysis to a larger sample to include more industries, and maybe private firms if possible. It would also be interesting to assess the effect of the formation of super PACs and the fact that they allow for unlimited spending.
REFERENCES


