Corporate political activity, public policy uncertainty and firm outcome: A meta-analysis

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CORPORATE POLITICAL ACTIVITY, PUBLIC POLICY UNCERTAINTY AND FIRM OUTCOMES: A META-ANALYSIS

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ABSTRACT

Even though significant scholarship has been devoted to the study of corporate political activity (CPA), contradictory messages emerge regarding its impact on public policy outcomes and firm performance. Using meta-analytic methods on a sample of ninety three studies, working papers and books, we try to disentangle two mechanisms that explain why CPA is not always beneficial to firms: (1) the uncertainty about the public policy process itself, i.e. can firms get the policies they want through CPA?; and (2) the uncertainty about the policies’ impact on the firm, that is, whether firms effectively anticipate the implications of policies for their performance. Our results support the idea that these types of uncertainty play an important role in explaining the intermediary dynamics of CPA. We find that CPA only weakly impacts public policy and at best has a (direct) weak effect on corporate outcomes.

Keywords: Corporate political activity; public policy outcomes; voting outcomes; regulation; performance; meta-analysis.
INTRODUCTION

Corporate Political Activity (CPA), defined as "corporate attempts to shape government policy" (Hillman, Keim and Schuler, 2004: 837) takes place through lobbying, making contributions to political campaigns, participating in trade associations, or engaging in grassroots mobilization efforts and is on the rise (Hersch, Netter and Pope, 2008). It is also at the heart of important policy issues, as indicated by the U.S. Supreme Court's 01/21/2010 decision in *Citizens United v. Federal Election Commission* to remove limitations on corporate spending to support the election or defeat of a political candidate (Smith, 2010). In an Op-Ed article in the New York Times, John C. Bogle, founder, former CEO of the Vanguard Group, summarized his personal view in his article's title: "The Supreme Court Had Its Say. Now Let’s Shareholders Decide" (2011).

Yet, shareholders may have a difficult time deciding if CPA is in their interest; existing studies offer a confusing picture regarding how firms use CPA to achieve their objectives and improve their performance. While there is now some agreement regarding the factors that push firms to invest in CPAs (Lawton, McGuire and Rajwani, 2013; Lux, Crook and Woehr, 2011), the question of whether these CPAs are successful investments for firms is far less clear, with different studies arriving at conflicting results (Aggarwal, Meschke and Wang, 2012; Cooper, Gulen and Ovtchinnikov, 2010; Mellhai, Frynas, Sun and Siegal, 2015). The purpose of this research is to provide a systematic review of existing empirical studies relating CPA to public policy outcomes and to firm performance through a meta-analysis, and to explore the context under which CPA is able to impact public policy outcomes and firm outcomes and when it is not.
This question is important not only for scholars directly interested in corporate political activities, but also, more generally, for researchers involved in Organization Theory. First, there is a long tradition in sociology and organization theory of looking at how firms can shape their environment (Barley, 2007) and respond to institutional processes therein (Oliver, 1991), and whether firms, if successful at doing so, are becoming more political institutional actors (Mizruchi, 2004). Consequently, if the answer is yes, there could be significant implications for social welfare and the fair functioning of our democracy (Coates, 2012; Lohman, 1993). Our study can contribute to this debate by exploring through previous studies, if firms really are successful at influencing public policies and therefore at shaping the political environment they are in and the overall public policy sphere. Second, one key question in Organization Theory relates to the role of uncertainty, in which individuals in general and managers specifically, make decisions. This question will be at the core of our theoretical framework. As argued by Shenhav and Weitz (2000: 374), the notion of uncertainty is “of critical importance in almost all formulations of Organization Theory” and is especially relevant to firms trying to navigate the political arena (Meznar and Nigh, 1995; Smith, 2000). As explained below, our framework to explore the outputs of CPA will be based on a similar lens: we will look for sources of uncertainty for firms in political processes in order to determine when CPA might be successful or not.

At a theoretical level two camps emerge when it comes to the ability of CPA to impact firm performance¹. First, several perspectives view firms as entities that have the capacity, under some conditions, to achieve political influence. These perspectives come

¹ Note that one objective of our paper is in fact to bring together the different perspectives and literatures interested in firms’ political activities, especially in disciplines such as economics, political science, management or sociology. As highlighted by Henisz and Zelner (2012), these perspectives so far have mostly developed in silos, with low levels of cross-citations. This is a pity as the cumulative process of building scientific evidence is therefore much slower on this topic than it could be.
from a variety of disciplines (Henisz and Zelner, 2012), such as economics, especially Public Choice economics (Buchanan and Tullock, 1965), and the economic theory of regulation (Stigler, 1962; Pelzman, 1976), which explore how self-interested policy-makers allocate policies across interest groups competing for influence and therefore how politically active parties may be able to shape regulation to their needs. And also from political science scholarship, in particular, Positive Political Theory, which uses formal models to study politics and interest group competition (Austen-Smith, 1987; 1998; Spiller, 1996). There, political access is a function of demand and supply and the needs of politicians.

Similarly, in management, approaches such as resource dependence theory, institutional theory (Oliver, 1991), political market theory (Bonardi et al., 2005) or capability theory (Henisz, 2003) view CPA as an activity that can generate firm-specific gains based on increased barriers to entry, secured preferential treatment or buffer from external coercive pressures (e.g., Esty and Caves, 1983; Hillman and Keim, 2005; Rehbein and Schuler, 1999). These widely accepted views in strategy scholarship (Hillman and Hitt, 1999; Oliver and Holzinger, 2008) have also enjoyed some empirical (yet contextual) support over the past decades (such as Bonardi et al., 2006; Hillman, Zardhoo and Bierman, 1999).

However, an increasing number of scholars across different disciplines express skepticism over the business case for CPA (Ansolabehere, De Figueiredo, and Snyder, 2003; Milyo, Primo and Groseclose, 2000; Smith, 2000). This scholarship questions not just the ability of CPA to impact public policy outcomes but also its ability to directly impact a firm’s bottom line (Hersch, Netter and Pope, 2008; Sobel and Graefe-Anderson, 2014). Theoretically, these scholars challenge not only the unitary view of business interests and
the ability to leverage their CPA (Lowery, 2007; Smith, 2000:17) but also highlight the
fragmented and competitive nature of the political arena (Hadani and Schuler, 2013) and the
challenges and issues facing individual firms attempting to access the public policy arena
(Bonardi, 2008; Hart, 2010). A meta-analysis can strongly inform this debate.

While much of the research on CPA and its outcomes assumes that the intermediary
linkages between CPA and public policy processes and outcomes are at play, rarely have
studies on CPA explicitly looked at these critical intermediary linkages (Coates, 2012;
Cooper, et al., 2010; Hadani and Schuler, 2013). This meta-analysis will shed light on this
critical issue. Extant empirical research provides some hints yet leaves significant gaps in
our knowledge about CPA. First, Ansolabehere et al. (2003) reviewed 37 articles on the
impact of CPA on voting outcomes by counting the number of significant regression
coefficients. Their review found that in most cases CPA was not associated with voting
outcomes. While informative, regression sign counting is methodologically weak to
conclude about the existence of an empirical relationship or lack thereof, a meta-analysis is
typically the more appropriate approach (Bornsetin, Hedges and Rothstein, 2007; Koricheva
and Gurevitch, 2013). Further, Ansolabehere et al. (2003) do not differentiate between firm
level versus collective level or trade association political action, which can have a
substantive impact on public policy (Rajwani, Lawton and Phillips, 2015).

In this spirit, Lux et al. (2011) conducted a meta-analysis focused on CPA. Their
meta-analysis of 78 empirical studies attempted to identify the determinants of CPA (not a
question we address here), with a secondary focus on its direct impact on firm performance.
On this second point, based on a sample of 16 studies (out of 78) they found a relatively
weak to medium effect size of $r = .17$ and concluded that "CPA is positively related to firm
performance and is an important determinant of firm performance" (2011: 223). Though their analysis provides a much valuable research review, we nonetheless see major issues with their meta-analytic study that warrant further research. First, Lux et al. (2011) do not explain the underlying linkage(s) between CPA and firm performance, a weakness that they acknowledge and suggest as an avenue for future research (Lux et al., 2011: 243). Secondly, the relationship between CPA and firm performance is likely sensitive to how we define firm performance (Hersch et al., 2008). The Lux et al. (2011) study focused solely on accounting based performance measures (p.233). We throw a more comprehensive net to include a broad set of firm performance measures. Third, and as critical, is the fact that since 2011 significant scholarship focused the impact of CPA has come out. In a review of the literature on firms’ nonmarket strategies –both CPA and CSR– Mellhai, et al. (2015) show not only that the empirical literature linking nonmarket strategies and organizational performance has strongly gathered speed during the 2010-2014 timespan thanks to better data and stronger statistical methods, but also that among these studies less than 50% (8 out of 18) report a positive relationship between CPA and performance (e.g., Aggarwal, et al., 2012; Blau, Brough and Thomas, 2013 and others) strongly necessitating a reassessment of the linkage of CPA to firm outcomes.

This paper focuses on two kinds of uncertainty that might characterize the complex of process policy-making. First, we explore ‘influence uncertainty’ as it captures the less than direct impact firms’ CPA has on public policy outcomes (Keim, 2001; Schuler, 2002). A second and related step of the process is whether firms correctly anticipated the impact of the public policies they were aiming at. This is another kind of uncertainty, which we call 'policy impact uncertainty' that would prevent CPA from having a positive impact on firm
outcomes (Holburn and Vanden Bergh, 2004). Taken together these can weaken or even sever the link between CPA and firm level outcomes.

We begin by exploring the different theoretical avenues linking CPA, public policy uncertainty and outcomes, and derive propositions. We then describe our research methodology and results, and finally provide a discussion reflecting on existing research.

**THEORY REVIEW AND HYPOTHESES DEVELOPMENT**

When trying to study the performance implications of CPAs, theoretically, at least two major questions emerge. First, do firms obtain the policies they want when they use CPAs? It is often assumed in the academic literature (Hillman et al., 2004; Shaffer, 1995) or in the popular press that firms (especially 'big business' with its deep pockets) are likely to obtain whatever public policy they wish when they engage in CPAs (Reich, 1998, 2010). Others, however, point to the structural uncertainty characterizing policy-making processes, making it difficult for any player, including firms or groups of firms, to shape regulation effectively (Keim, 2001; North, 1990). Case studies, in particular, provide numerous examples of what we term ‘influence uncertainty’ that is, the often fragmented and multi actor nature of the public policy arena which makes public policy outcomes difficult to predict, and in particular how much actors can affect policy decisions (Vietor, 1994). This is a first order of uncertainty we consider in this paper.

Second, if firms engage in CPA, do they correctly evaluate the financial or competitive implications of the various policy options? This is the second order of uncertainty one needs to look at when considering the hypothetical relationship between CPA and performance. In other words, there might exist 'policy impact uncertainty', making it difficult
for firms to correctly evaluate what they should use CPA for, even if the first order of uncertainty (over public policy influence) was minimal.

As highlighted in Figure 1 below, this is the structure we will follow for both our theoretical discussion and for our empirical investigation.

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Insert Figure 1 about here
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**CPA and Influence Uncertainty**

*CPA’s impact on public policy outcomes*

A major reason to engage in CPA is to achieve access to public policy makers (Olson, 1971). If successful at this first step, politically active firms may be able to go further than mere access to actual influence over public policy (Hillman and Hitt, 1999). The dominant theoretical approach in the current management literature is anchored in political economy (Baron, 2009), in particular through insights from public choice economics (Buchanan and Tullock, 1965). With this approach, politics is generally seen as a marketplace where several public policy demanders vie for the supply of a favorable public policy decision (Bonardi, Hillman, and Keim, 2005; Keim, 2002). In such a marketplace, the ‘equilibrium price’ being negotiated between ‘sellers’ and ‘buyers’ is an exchange of resources deemed of equivalent value: a public policy decision which would improve corporate performance (a form of rent extraction: Stigler, 1971; Tollison, 1982) in return for resources valuable to public policy makers, such as wining and dining, free trips, relevant technical information, or campaign donations (Dahan, 2005; Hillman and Hitt, 1999).

In this perspective, political processes are relatively predictable processes in which firms investing the most in CPA should obtain favorable policies; uncertainty is less of an issue, the ability to outcompete others’ CPA is. A typical example of this view can be found
in a study of sugar producers (Stratmann, 1991), which were lobbying to keep sugar subsidies in the context of the sugar amendment to the 1985 agriculture bill. Stratmann (1991) calculates that a "$3,000 sugar PAC contribution maps into a yes vote with almost certainty." Without sugar industry contributions, the final vote on the bill would have been 203-210, and would have terminated the sugar subsidy. However, because of the CPAs developed by sugar producers, the subsidy survived: the final vote ended up being 267-146, bringing sugar firms roughly $5 billion over five years (Ansolabehere et al., 2003). Some studies argue for an even stronger impact. For example, Chen, Gunny and Ramana (2014) examined the political returns for firms lobbying for the passage of the 2004 American Job Creation Act and note (p.4) “Our regression model suggest that for the median U.S. firm with long-term political relationships at the time of the Act’s passage, an additional investment of $1 million in lobbying expenditures is associated with $32.35 million in taxes saved on repatriated foreign income.”; firms clearly have some ability to deal with the political environment in a predictable manner.

Furthering public choice insights, modern approaches in positive political theory characterize CPA as a menu auction, in which firms commit to a schedule of payments to a policymaker in order to get a well-identified policy (Bernheim and Whinston, 1986). In this view the firm is a rational actor, investing in CPA only if the public policy benefits outweigh the costs (Baron, 1995). Here, the policy-maker chooses the policy that maximizes her/his individual benefits and firms pay only the amount promised for that particular policy (Grossman and Helpman, 1994). Firms that would not get their preferred position would stay out of the game and pay nothing. In other words, only the firms that should get a favorable public policy outcome would invest in CPA and little political process uncertainty remains in
the end. The other classic way by which economists model lobbying games is different in nature but its outcome is relatively similar for our purpose: policy-making processes are modeled as an all-pay auction, in which the probability of regulation is a function of the lobbying expenditures of those favoring and those opposing the rule (Baye, Kovenock and De Vries, 1993). In this set-up, both proponents and opponents of a rule must invest in CPA regardless of whether they win or lose. Even in this situation it is only when rivals are very close to each other that uncertainty about the winner and the resources that will have to be spent exist.

The above portrays CPA as providing favorable public policy outcomes because firms are able to mitigate public policy process uncertainty through influence. Such influence can also be purchased via hiring of former politicians to the board to generate political ties that mitigate uncertainty. The work of Hillman et al. (1999) reflects a clear market expectation that firm level political ties will provide firms with the ability to navigate the complex nature of the political arena. Hillman’s (2005) later work provides qualified empirical support for this notion; firms appear able to buy political expertise (Hillman et al., 1999; 2004). From there, we propose:

Hypothesis 1: The higher firms’ investments in corporate political activities, the more likely are firms to obtain preferred public policies.

However, as suggested earlier, some recent approaches are questioning the ideas underlying Hypothesis 1. First, firms may not grasp the complexities associated with the political marketplace, or overestimate their ability to navigate in that space. Firms may lack knowledge about many behind-the-scenes activities such as meetings and email exchanges of information
(legislative drafts, etc.) between governmental officials and lobbyists, as well as the multiplicity of interactions happening simultaneously (Bertrand, Bombardini and Trebbi, 2011), all of which increase the inherent outcome uncertainty of interactions among public policy seekers and suppliers (Schuler, 2002). Empirically, Ansolabehere et al.’s (2003) independent longitudinal analysis of CPA and voting behavior fails to support a strong association between the two. Baumgartner et al. (2009) and Smith’s (2000) work support this finding even for some lobbying efforts. The dynamics behind such failures may have to do with the less than certain nature of the political marketplace.

Another structural reason why lobbying arenas might be plagued with such Influence uncertainty could be related to the behaviors of competing interest groups. Macher and Mayo (2012) suggest, for instance, that corporate influence over policy-making declines as the number of competitors increases. This might be related to the more intense competition created by these groups (Bonardi et al., 2005) but also more fundamentally to the dynamics of policy-making processes and to the uncertainty they generate (Dixit, 1998). Instead of being the result of a well-defined contest, with a set of resources clearly allocated in equilibrium to obtain a policy, policy-making might be much more a dynamic and evolutionary process in which both public policy suppliers (politicians, regulators, bureaucrats) and demanders (firms, interest groups, NGOs) of policies might constantly reconsider their offer and innovate in order to sway the process in their preferred direction. In such a setting, public policy influence uncertainty is inherent to the process, very difficult to evaluate and to mitigate ex ante (Keim, 2001).

The literature on case studies of policy-making provides many examples of this dynamic nature of the phenomenon and of the surprising outcomes it generates (Clawson et
al., 1990; Derthick and Quirk, 1985). At a more theoretical level, the opportunistic or entrepreneurial political behaviors of both politicians and regulators (Benson, 2002; Holcombe, 2002), or of firms (Teske, 1991), interest groups (Bonardi and Keim, 2005), or even the two of them simultaneously (Van den Polder, 1994) has also been highlighted as making it hard to predict how political activity impacts public policy outcomes.

Note also that, in such a dynamic process, when firms or interest groups engage in lobbying, others may feel they have no choice but to imitate their rivals and participate in a so-called ‘arms race’ (Gray and Lowey, 1997). From this perspective, cases in which firms have the luxury to decide if to be involved in the policy-making process should probably be treated as exceptions. This is likely the case for the empirical investigation conducted by Bonardi et al. (2006) in the US electric utility industry, in which rate review processes are generally initiated by the utilities themselves. In most cases, however, firms might develop CPAs to counter-act the lobbying activities of interest groups or activists, leading to unsuccessful results (Smith, 2000); a zero sum game dynamic may erase any returns to CPA (Hadani and Schuler, 2013).

**Trade association political activity and influence uncertainty**

Individual firm CPA is not the only form of interest group political activity. As early as the 19th century (Teachout, 2014), firms have joined forces via trade or peak associations to pursue broad policy outcomes that benefit their constituents (Olson, 1965; Smith, 2000). Noteworthy trade organizations include the Business Roundtable, the U.S. Chamber of Commerce, the National Rifle Association (NRA), the farm lobby (Hansen, 1991) and the Pharmaceutical Research and Manufacturers of America (PhRMA), among many others. Such trade associations typically have significant resources and have specific political preferences.
Though significant anecdotal and media evidence alludes to trade association political activity (TPA), and its impact on the public policy sphere, a systematic analysis of the impact of trade associations on public policy outcomes is lacking. Rajwani, Lawton and Phillips (2015) note that despite the critical importance trade associations or organizations have as information disseminators and as informal standard setters of firm behaviors, we know little about them and about their impact, in particular when it comes to political activity. TPA might reduce the influence uncertainty highlighted above. Ansolabehere et al.’s (2003) conclusion that interest group and CPA do not impact public policy outcomes does not differentiate between firm level and trade association political action or activity. We now examine some of the dynamics of TPA and its potential impact.

On the one hand, traditional theorizing on industry wide political activity argues that TPA will often result in suboptimal lobbying as the benefits of TPA will accrue to all members of the sector but the costs will be borne by the largest market share firms (Bergstrom et al. 1986; Olson, 1965). This will result in the famed ‘free rider’ problem associated with industry level political activity. However Olson assumed that collective CPA is beneficial rather than ineffectual, as the incentive to free ride is driven by the promise of favorable public policy outcomes. Indeed, Dean, Vryza and Fryxell (1998) find that collective CPA (a weak proxy for TPA) achieves policy outcomes that benefit industry incumbents at the expense of new entrants. Another related issue, noted specifically by Smith’s (2000) work on the U.S. Chamber of Commerce, is the difficulty of arriving at a broadly agreed upon stance regarding favorable public policy outcomes that transcend the particular needs of each individual member of the chamber. This eventuality also increases the possibility that the political activity of Chamber, a compromise of many different interests (an issue reflecting
other trade associations), may reduce the commitment of its members because it only partially reflects their needs; this can negatively impact the efficacy of such a trade association.

For TPA to be effective firms need to effectively coordinate and agree on the purpose and the agenda of the trade association they belong to. Olson (1965) argues that the appearance of a politically active interest group is self-selective; groups that are able to organize and resolve collective action and coordination issues will appear and engage in political action. Consequently, they will become more dominant over other interested parties that did not resolve these issues; their agendas will become more dominant at the expense of other groups or the public since the political establishment is more susceptible to their pressure (Kollman, 1998).

Indeed, Barley (2007) reviews the political machinations leading to the passage of bankruptcy act of 2005. Instrumental in the passage of the act, which made it much harder to declare personal bankruptcy (but had no such restrictions on corporations) were two trade organizations created by the financial industry. The two, the Bankruptcy Issues Council (BIC) and the Consumer Bankruptcy Reform Coalition (CBRC) were sponsored by Visa, MasterCard, MBNA and other institutions, and were a powerful lever through their political networks and lobbying that helped shape the 2005 Act and resist pressures to accommodate consumers. Here different financial institutions had strong common cause to advance; divergence of agendas was not an issue. In a similar vein Bombardini and Trebbi (2009) indicate that, to the extent that firms are able to organize and coordinate their efforts, TPA can be an effective political tool. They note that the ability of industries to organize collectively and present a unified front can be an effective influence tool vis-à-vis public policy makers. This is because when public policy makers face a unified front they are more
likely to respond favorably (Salamon and Siegfried, 1977). A unified front reduces competition for political access; public policy makers face an easier task when deciding on specific public policy outcomes to supply. Indeed, Bombardini and Trebbi (2009) find that industrial sectors that lobby more via trade associations (as opposed to more fragmented political activity) are able to receive more trade protection in forms of tariffs and non-tariff measures that make foreign firms less competitive. The ability to overcome collective action issues and agree on a unified front seems to be characteristic of many trade associations in the U.S. For example, PhRMA, which has been widely viewed as instrumental in helping crafting national healthcare policy both under former president George W. Bush as well as under president Obama (Baker, 2012; Pear, 2003). In other areas such as the context of gun control laws Langbein and Lotwis (1990) find that NRA campaign contributions had an impact on pro-gun ownership voting outcomes. Recent media reports continue to tout the power of the NRA to stall gun control legislation (Draper, 2013). Frendreis and Waterman (1985) report a negative association between the American Trucking Association PAC contributions and trucking deregulation votes. Their work also indicates that coordination and free riding issues can be partially resolved.

Taken together the theoretical arguments and the empirical data support the view that although trade organizations still face collective action and free ridding problems, they still have a strong potential to impact public policy outcomes. In this context influence uncertainty remains an issue but it can be partially offset by the unified front of a collective action political association, thus:

_Hypothesis 2: Higher levels of trade association political activity (TPA) will be positively associated with industry preferred public policy outcomes._
**Public Policy Outcomes and Corporate Performance: Policy Impact Uncertainty**

Beyond influence uncertainty, another type of uncertainty related to CPA comes from whether firms can adequately predict the actual impact of policy outcomes on their corporate operations and performance. In other words, it is conceivable that firms get the public policy they are lobbying for but that this public policy does not lead to the type of positive impacts that the managers had in mind. We explore the two sides of this coin below.

**The impact of public policy outcomes on corporate performance**

Industrial organizational economics has long argued the importance of industry structure (including public policy) as a key determinant of corporate performance (Porter, 1979; Stigler, 1971). As noted by resource dependence theory (Pfeffer and Salancik, 1978) the main impetus of CPA is the firm's dependence on government decision-making and regulation, which can strongly constrain a firm's strategic autonomy. Hence, the dominant view across various disciplines is that public policy outcomes impact firm outcomes, which is why firms engage in CPA to begin with (Baumgartner et al., 2009; Cooper, Gulen and Ovchinnikov, 2010; Hillman et al., 2004; Olson, 1965). Studies on changes in public policy outcomes vis-à-vis firm outcomes generally support this notion. For example, failure to successfully fight price controls did hurt pharmaceutical firms as noted by Castellblanch (2003). Bowman, Navissi and Burgess (2000) also showed how pharmaceutical firms’ market value fluctuated in response to varying degrees of exposure to public policy outcomes during the 1992 presidential election campaign. Lastly, when firms gain access to politicians they are able to achieve a variety of public policy benefits that impact firms’ market position favorably (Faccio, 2002) and when firms lose access to policy makers, the financial markets may
respond negatively in terms of short-term market value (Roberts, 1990); an evidence of the common belief that access should translate into firm level performance.

It is important to note that all the above studies have assumed that firms’ access to public policy makers is a sufficient condition for favorable public policy outcome. However this may not be the case. Giroud, Lee and Mullins (2013), for instance, show that firms who put their campaign money on the winning candidate typically accrue benefits such as an increase in government contracts, reduced political risk, better access to financing via banks, and better political access in the future, while companies that bet on the losing candidate will not. Thus for at least some firms public policy outcomes will benefit their bottom line. Based on this extant research, we propose a directional link between public policy outcomes and firm level outcomes:

Hypothesis 3: Preferred public policy outcomes will be positively associated with firm outcomes.

On the other hand, other researchers argue that corporate anticipations of public policy impact are clouded by high uncertainty. As stated by Nobel Prize winner Douglass North: "the political market has been, and continues to be, one in which the actors have an imperfect understanding of the issues affecting them" (North, 1990: 357). This type of uncertainty is not related, as above, to the nature of the policy-making process per se, but rather to the complex implications of many policies on the firms’ business environment. Many players in a sector or an economy (competitors, suppliers, consumers, etc.) might be affected by the policy, generating bargaining power, competitive or financial outcomes that might be difficult to predict ex ante or assess ex post.
Tasir (2010) recently applied the "illusion of explanatory depth" concept to the field of regulation, and discussed how public policy makers suffer from the "illusion of regulatory competency", as they wrongly assume that they can forecast how the new policy measures they adopt will impact their policy field. What we raise here is an extension of this concept to managers of politically active firms: they, too, may suffer from this illusion, as they believe to know how public policy options on the table will impact their firms, and can deduct which one they should support. This may be a false assumption on their part. Indeed, the public policy environment is typically very complex, including many actors involved in hundreds of interactions (Hart, 2004: 55; Keim, 2001), which create situations of high causal ambiguity (Baumgartner and Leech, 1998; Kersh, 1986, 2002), and includes so many free-riding opportunities (Tollison, 1982: 589) that it is often difficult to tell whether public policy decisions will generate corporate gains (Hadani, 2012). Indeed, Krueger (1988), studying the history of U.S. sugar policies, provides numerous examples of cases in which firms and consumer groups did not clearly understand and anticipate the implications of the policies that were being developed. They also frequently failed to push in favor of policies that, with hindsight, would have made them better off (see also Woll, 2008). Thus policy impact uncertainty may still be at play.

We summarize the arguments developed above including the different types of uncertainty firms might face in their political environment (namely, influence uncertainty, and policy impact uncertainty), in Figure 2.

METHODS


Literature Search

In conducting a meta-analysis we thought to identify the universe of relevant studies that pertain specifically to our theoretical proposals. Therefore, we searched for scholarship that explored how different forms of CPA impact policy outcomes, how policy outcomes impact firm outcomes and how firm CPA impacts firm outcomes. We define 'CPA' as broadly as possible (see below) as to include the maximum number of relevant studies, books, proceedings, dissertations and unpublished work such as working papers and other works in progress.

We followed the procedure set by Carney, Gedajlovic, Heugness, Van Essen and Oosterhaut (2011) and conducted an extensive article, publication and scholarship search that included review articles and books such as Ansolabehere et al., (2003), Getz, (1997, 2002), Hansen’s (1991) book on the farm lobby, Hart (2004), Hadani and Schuler (2013), Hersch et al., (2008), Hillman et al., (2004), Smith’s (2000) book on the U.S. Chamber of Commerce, as well as more recent publications. We used these studies also as a source of snow ball sampling methodology, to locate other articles or relevant work through them. Second, we searched the following databases for articles: ABInform, EBSCO, Jstor, Lexis-Nexis, NBER, Google search and SSRN for relevant keywords (see below) and also searched Google scholar. We did not set a specific date range but let the literature search determine the date range organically; our earliest study is from 1976 and the latest one is from 2015, covering 39 years of CPA related scholarship.

Criteria for scholarship inclusion

In order for a study to be included in the analysis it had to empirically analyze the relationship among our focal variables such as between types of CPA and policy outcomes,
between policy outcomes and firm level outcomes and between CPA and firm level outcomes (discussed in the post hoc section). Here we further refined our inclusion criteria as to include studies that measure different aspects of CPA, or measured policy outcomes as either voting outcomes, or decision-making outcomes associated with governmental agencies such as regulatory agencies, and we also included those studies that include firm outcomes such as performance (market or accounting based measures, among others). For the list of keywords used in our search see the appendix. Our initial search yielded over one hundred and twenty articles, books and unpublished work while our final sample included ninety two articles, books and unpublished work (including dissertations) from the late 1970s to 2015, covering 58,423 firm-year study observations (including post hoc analyses, discussed later, we have 489,435 firm-year study observations).

Statistically for studies to be included in the meta-analysis they needed to clearly report sample size, sample years, and have a direct or indirect (amenable for statistical transformation) measure of effect size. The best effect size measure for use in a meta-analysis is the correlation between the independent and dependent variables – r – or the multiple r (controlling for other variables) (Borenstein, Hedges, Higgins and Rothstein, 2009; Carney, et al., 2011). However, other measures of effect size that can be transformed to r. Here we used t statistics, converted to r based on Hunter and Schmidt’s (1990) formula\textsuperscript{2}, standardized beta coefficients converted to r based on Peterson and Brown’s (2005) formula\textsuperscript{3}, partial beta coefficients (see Carney et al., 2011), and the odds ratio based on the natural log of the odds ratio, as well t ratios and sample sizes (Borenstein et al., 2009).

Procedure

\textsuperscript{2} The formula is $r = \frac{t}{\sqrt{t^2 + N-2}}$

\textsuperscript{3} The formula is $r = \beta + .059 \times (1 - |\beta|)$ (if $\beta > 0$ then $\lambda = 1$, if $\beta < 0$ then $\lambda = 0$)
For each study we calculated an average effect size if more than one statistical test was reported (see Hunter and Schmidt, 2004). We used the Hunter and Schmidt (2004) random effects meta-analysis approach, which unlike the fixed effects approach, assumes the average effect size varies randomly among studies, as they are sampled from populations that may have different population effect sizes (Borenstein et al., 2009). Random effects models assume that the variability between effect sizes is due to sampling error plus variability in the population of effects (unique differences in the set of true population effect sizes). As such variability in effect size is due to "subject" level noise and “true” unmeasured differences across studies. Random effects models are more efficient than fixed effects models, but may have lower power because they assume the random effect is orthogonal to the regressors. To verify the choice of a random effects model we ran a Hausman test, where the null hypothesis is that the preferred model is random effects model (see Greene, 2008). The test value was 1.67 (p>.05), thus we kept the random effects model.

Random effects models involve estimating two error terms, compared to a single error term for a fixed effect approach. When using random effects models we would likely expect effect sizes to be heterogeneous since they are taken from different populations (Hunter and Schmidt, 2004). We then derived the effect size – the r metric – from studies' reported statistical data, and then calculated the mean effect size for each category of interest. We also calculated the variance of sample effect sizes $\sigma^2_r = \frac{(\Sigma n(r_i-r_{mean})^2)/\Sigma n}{\Sigma n}$, the sampling error variance $\sigma^2_e = \frac{(1-r_{mean}^2)^2/(N_{total} - 1)}{\text{sample size}}$, the variance of population effect size $\sigma^2_p = (\sigma^2_r - \sigma^2_e)$, and the tau$^2$ $\tau^2 = Q-(k-1)/c$, to test the homogeneity of effect sizes across the population of studies we collected, and to create the 95% confidence interval, CI: r/-+ 1.96*\sqrt{\sigma^2_r}. We also report the scale free index of heterogeneity $I^2$ calculated as $Q-k-1/Q * 100$, reported as
percentage points (Carney et al., 2011) as it provides a complementary measure of between study variability (Higgins and Thompson, 2002). We also calculated the significance of the mean effect size $z_r / \sigma_r$ (Johnson et al., 1995), for which we transformed the r effect size to their z; this test posits that the mean effect size r is equal to a population mean effect of zero. It is important to note that using Fisher's Z transformation of effect sizes$^4$ to standardize effects (Hedges and Vevea, 1998) does not change the estimation of our effect sizes across the different categories of interest.

**Measures**

*Corporate political activity.* We measured CPA as any firm non market behavior that included at least one of the following: Political action committee (PAC) contributions, any lobbying activity (hired or in-house), any other reported activity related to lobbying, the existence of political ties between the firm and policy makers (such as politically tied directors, or personnel or connected shareholders) and petitions to, testimony to or any reported interactions with regulatory agencies as well the political activity of trade or peak or umbrella associations and organizations.

*Preferred policy outcomes.* We measured preferred policy outcomes as reflecting voting outcomes in Congress and/or in the Senate or the decisions made by government agencies such as regulatory agencies or other government agencies (for example, PUCs which regulate utilities, decisions made by the U.S. international trade commission, voting outcomes, contracts allocated, etc.). We define public policy outcomes as ‘preferred’ at the study level. For each study we examined the direction of expected signs of CPA variables vis-à-vis the dependent variables and coded the size and the direction of each effect based on the expected

\[ Z_r = 0.5 \log_e(1+r/(1-r)) \]
association. If the expected direction was confirmed (such as corporate money impacts voting) we report the effects as positive and if it was disconfirmed, as negative. For example, Langebin and Lotwis (1990) examined the association of NRA PAC monies on gun control voting. They expected that NRA political activity will be positively associated with the Act, which was confirmed, and thus the statistical effect was recorded as a positive one.

*Firm outcomes.* We measured firm outcomes as any study measure that pertains to firm performance such as accounting based measures (return on assets, profits, growth, return on sales, etc.) and financial based measures (such as market value) as well as others (such as market share or contract awards).

*Dealing with sample interdependence.* An important issue to consider when running a meta-analysis is the possibility that some studies might rely on the same sample and the same time frame, which can result in double counting of data points and distort the ‘real’ population effects sizes (Senn, 2009). In order to deal with this issue we carefully examined the different studies and coded each for the nature of the dependent variables, the statistics and the sample size and the composition of the sample itself and its time frame (among other data). For voting outcomes we did not find significant overlap of firm-year observations; we examined studies that had similar voting issue focus and for the most part found little or no sample overlap. When there was overlap we removed the studies with the smaller sample size (firm-year observations). We elaborate more on this with regard to the post hoc analysis.

**Results**

The results of the meta-analysis are presented in table 1. Notice that there is some overlap among the different studies used to assess each proposition – the overall N only appears larger than our full sample N.
For each hypothesis we report the mean effect size, $r$, the significance of the mean effect size $r$ (in which the significance is assessed to an assumed population mean of 0), the range of confidence interval (CI) at 95%, as well as the sampling error variance ($\sigma^2_e$), the variance of sample effect size ($\sigma^2_r$), the variance in population effect size ($\sigma^2_\rho$), the effect size homogeneity test value and its significance test and the scale free index of heterogeneity.

Hypothesis 1, which proposed that CPA will be associated with preferred public policy outcomes, was not supported. Contrary to the prediction, the effect size was not significant ($r=.028$, $p>.05$, CI: .09, -.03). Hypothesis 2 which proposed that TPA will be positively associated with preferred public policy outcomes, was supported. The effect size for TPA was (small) positive and significant ($r=.08$, $p<.0001$, CI: .10, .06). Hypothesis 3 which argued that preferred public policy outcomes will be positively associated with firm outcomes, was supported. The effect size was (small) positive and significant ($r=.04$, $p<.05$, CI: .04, 04). Again, this result seems to indicate that what we called 'policy impact uncertainty' is somewhat present, given the small magnitude of the effect size.

Additional analyses: Meta-analytic regression analysis

In this section we describe additional analyses conducted. First, our meta-analyses reveal that for some associations we hypothesized, the effect size was not homogeneous as the test for homogeneity and the $\chi^2$ statistic show. In terms of effect size homogeneity test, a non-homogenous finding typically indicates the existence of unobserved moderator variables (Hunter and Schmidt, 2004). Similarly, variance in the scale free index of heterogeneity
(Lipsey and Wilson, 2001) is evident for many effects reported. Thus, study based moderators are likely impacting the results and a meta-regression is typically used to assess which variables impact variance in the mean effect size (Borenstein et al., 2009).

Hence, following Carney et al., (2011) we used a meta-analytic regression analysis (see Lipsey and Wilson 2001) across the different studies in our paper. This approach uses a weighted least squares (WLS) regression analysis to assess how study level moderators impact effect sizes, r, by weighting the effect sizes (based on the sample size they were derived from) to account for heterogeneity in effect size distribution. This analysis includes a series of commonly assessed moderator variables (which must appear in all studies) as independent variables and explores their association with the different r obtained. Based on extant theorizing on CPA we analyzed the content of our studies to arrive at list of common variables that can serve as possible moderators.

Extant CPA scholarship has long indicated the importance of the industrial context in impacting the dynamics of CPA (Bonardi et al., 2005, 2006; Peltzman, 1976), the importance of a regulatory context (Hillman, 2005), as well the importance of study issues (for example, trade, gun control, etc.), as they can impact the saliency of the political issue at stake have and thus impact competition for political access (Bonardi and Keim, 2005). We were also concerned about the disciplinary focus of study authors as different disciplines may bring different theoretical and empirical considerations into their analysis. Based on authors’ departmental affiliations and journals’ mission statements (if studies were published) we

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5 As noted by Higgins and Thompson (2002) values around 25% indicate low between study heterogeneity while values of 50% or 75% indicate medium and high levels of between study heterogeneity, respectively.

6 Similarly to Carney et al. (2011) we also modify the macro provided by Lipsey and Wilson (2001) to ensure the data analysis software does not assume the weights assigned to each effect size reflect multiple effect sizes but a single, weighted, effect size.
coded for the following disciplines: Political science, economics, finance, management/strategy, law, accounting, sociology and cross-disciplinary fields. We were also concerned about the quality of the journal a study was published at and the journal’s level of selectivity and rigor (See Carney et al., 2011) as well as if the study was published or not (Carney et al., 2011). Further, we were concerned about the level of methodological sophistication of each study, as noted by others (Stratmann, 2002); we elaborate further below.

Based on these theoretical considerations and the work of Carney et al. (2011) the following criteria were identified and included in the meta-regression: 1) The disciplinary focus of the study, dummy coded; 2) the status of the paper (working paper or published) which was dummy coded (Carney et al., 2011); 3) the industrial context (which industry firms in the study were sampled from; such as tobacco, airlines, agriculture, utilities, finance and banking, etc.), dummy coded; 4) the number of data years used in each study as a longer time frame can impact effect size (Carney et al., 2011); 5) regulated or non-regulated context; dummy coded; 6) the type of issue discussed (for example, trade, labor, tax)\textsuperscript{7}; dummy coded.

To assess rigor we first added a measure for journal quality. Following Carney et al. (2011) we added the journal impact factor, computed by the ISI Social Science Citation Index. Like Carney et al. (2011) we assigned a value of 0 to unpublished work and for sources ISI does not cover. Extant literature also notes that in CPA research one must control for simultaneous modeling; models that are robust to possible simultaneous determination of the dependent variable and the regressors. Several scholars argue that not controlling for simultaneous relationships can impact analyses for voting outcomes and CPA as these outcomes may codetermine each other (Ansolabehre et al., 2003; Wawro, 2001). Such an issue has also been

\textsuperscript{7} This is important as some issues are more salient and some less so.
raised regarding the association of CPA and direct firm level outcomes (Hadani and Schuler, 2013). We thus coded if the study or the paper used simultaneous regression methodology or not. Lastly, based on the work of Oler, Harrison and Allen (2008) we also coded for the use of event methodology as its use may not accurately capture the complex and uncertain nature of CPA effects; event studies may inflate the value of political events on either public policy or firm level outcomes.

The WLS meta-regression model is as follows:

\[ \text{Effect size} = \beta_0 + \beta_1 \text{discipline} + \beta_2 \text{working paper status} + \beta_3 \text{industry} + \beta_4 \text{number of data years} + \beta_5 \text{regulated industry} + \beta_6 \text{study issue} + \beta_7 \text{journal impact factor} + \beta_8 \text{simultaneous modeling} + \beta_9 \text{event methodology} + \epsilon_{it} \]

In order to rule out possible dependencies among the predictors of the meta-regression that can create linear dependencies among the predictors, we examined the variance inflation factors (VIFs) of the meta-regression, these ranged from 1.56 to 1.01, indicating no multicollinearity problem in the data (Chatterjee and Price, 1991); reducing the possibility of a non-linearity of regressors.

The analysis shows (see Table 2) that several mediating factors impact effect sizes. First, discipline has a marginal significant impact on the effect size, with economics and finance driven papers associated with a slightly higher effect sizes with regard to the impact of CPA. Second, based on a subsample analysis studies whose sample spreads across a longer time frame tend to provide smaller effect sizes. Third, based on a subsample analysis, studies conducted on regulated industries tend to report a higher effect size than those conducted on non-regulated industries. For regulated industries the effect size is .04 larger than for non-
regulated contexts. Fourth, the type of political issues involved was significantly but marginally associated with effect size: some issues had larger effects sizes than others. For example, issues partnering to railroad, trucking, defense spending and farm subsidies, in particular, had slightly larger effect sizes compared to those involving tobacco, labor law, environmental regulation, or telecom regulation issues. Given the marginal significance of the regression analysis we are cautious in interpreting this result but the issues associated with a larger effect size seem to partially map the dynamic of issue salience. Less publicly salient issues (railroads) attract less competition for political access and thus bigger effect sizes and vice versa (Bonardi et al., 2005); this result might be seen as supporting the idea that ‘policy influence uncertainty’ matters, as firms’ CPAs seem to be less effective for broader (and more complex) issues. Next, study methodology was negatively and significantly associated with effect size. Studies using simultaneous regression methodology report on average an effect size of .056 while those using non simultaneous methodology report an effect around .17; a subsample comparison t-test finds these effects to be significantly different from each other (t=4.87, p<.001). Lastly, event methodology matters to effect size. We find that studies using an event window methodology have a larger effect size compared to those not using it; event studies report an mean effect size of .20 and those that do not report a mean effect size of .05; subsample comparison t-tests find the two significantly different (t=1.98, p<.05).

The overall pattern of results suggests that it is a combination of study content as well as methodology that impact effect sizes in CPA research. Interestingly, the journal impact factor did not associate statistically with the study effect size. The adjusted r square explains 84% of the variance in effect size.
CPA types and outcomes: Post hoc analyses and t-tests

In addition to the meta-regression above, we conducted other analyses. Specifically, given the weak effect size findings regarding some of the intermediate linkages in this study we wanted to unpack the direct linkages between CPA and firm level outcomes and to explore multiple measures of firm performance. In order to assess the relationship between CPA and different firm level outcomes we initially include all studies that examine the direct effect of CPA and then report an analysis using a restrictive sample to account for sample interdependence. We found that some studies do replicate both the sample and the yearly sampling time frame and thus we exclude them to create a restricted sample.

The results run somewhat counter to the Lux et al. (2011) study and other work on CPA (Hillman, et al., 2004). First, as can be seen from table 3 the association of CPA with most firm level outcomes results in non-significant effects sizes. The full sample (which includes all studies) reports a non-significant effect size ($r=.036, p<.05, CI: .17, .10$). Yet the restrictive sample (corrected for sample overlap) reported in row 2 reports a marginally significant effect size ($r=.072, p<.10, CI: .14, .01$). The effect size of TPA, reported in row 3, is not associated with firm performance, the effect size is non-significant ($r=.019, p<.05, CI: .10, .06$). The effect size of cumulative abnormal stock returns reported in row 4 is negative and non-significant ($r=-.08, p<.05, CI: .01, .17$). The effect size of market value reported in row 5, is non-significant ($r=.032, p<.05, CI: .16, .09$).

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8 We removed eight studies with a total of over 130,000 firm year observations and over 40 statistical effect sizes.
Given these mixed and mostly non-significant results we also examined other firm level outcomes, such as non-financial measures. These include access to TARP monies, utility rate increases, market share and threat of new entrants. For this category the effect size, reported in row 6, is positive, moderate in size and significant (r=.185, p<.001, CI: .27, .10). We further examined other non-financial measures such as accounting measures and federal contract awards. However for these categories the number of studies was small and the number of effect sizes was also small. Thus we do not include them in table 3 but provide their basic statistics. For accounting measures we find a small significant effect size (r=.035, p<.05, CI: .045, .025); the number of studies was seven. For federal contract awards we find a non-significant effect size (r=.05, p>.05, CI: .11, -.02); the number of studies was three.

Insert Table 3 about here

DISCUSSION

Lowery argued: "the lobbying environment is one governed by extraordinary uncertainty in goals, means and the relationships between goals and means" (2007:34). Overall, our results support this assertion. Our meta-analysis suggests that CPA has a weak impact on public policy outcomes, and only when firms participate in trade associations can they expect some influence over public policy outcomes, though the effect size is small. The analyses show that public policy outcomes are associated with firm level outcomes, but again the effect size is very small. This supports the view that influence uncertainty is often high for

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9 We separate this category because it is mostly the purview of defense firms or a few firms and we did not want to confound industry membership with other variables.

10 The convention is r=.10 is small, r=.30 is medium and r=.50 is large (Cohen, 1988).
firms; firms on average can expect that successful CPA will benefit them, only if they are able to manage the two types of public policy uncertainties we focus on.

Beyond the practical and managerial dimension of this result, it also provides a strong theoretical and methodological message for scholars interested in corporate political strategies: public policy-making should be considered and modeled as dynamic processes characterized by inherent uncertainty generated by the players (both demanders and suppliers) themselves, rather than as a static contest in which the strongest, the fastest, the smartest or the most connected always prevail (Holcombe, 2002). As the management literature on corporate political strategies or nonmarket strategies is still young, this is certainly an important aspect to keep in mind in its theoretical and also prescriptive aspects.

The fact that CPA and public policy outcomes do not seem associated (with the exception of trade associations), goes against Hypothesis 1. This finding raises the question of why firms invest in such activities to begin with. The concept of bounded rationality (Simon, 1963) might help explain this finding and should be considered more in future research on CPA. The notion that rationality and decision-making are bounded was elaborated by Simon’s work in the 1950s and 1960s. His work notes that decision-making is bounded by people’s cognitive, behavioral and environmental limitations, as well as some level of uncertainty (Simon, 2000); decision making often deviates from optimal utility maximizing outcomes. This can exacerbate the uncertain nature of the political marketplace. CPA takes place in the political arena, where it is hard for outsiders to assess how it will unfold or to assess its actual impact on the public policy process (Keim, 2001). As summarized by Hart, "Politics is notoriously fickle. Momentum can shift rapidly and unexpectedly" (2004: 55). In other words, while managers may believe they are able to maneuver the political arena, in reality it is
difficult for firms to predict what public policy makers will decide, as policy making is a process involving party, state, national, media and personal influences (Keim, 2001). This dynamic coupled with bounded rationality of corporate decision-makers raises the strategic uncertainty associated with CPA and its ability to generate desired outcomes such as improved firm performance (Hart, 2010). Because of this influence uncertainty, CPA is much less likely to be successful than many often assume.

Interestingly we report a significant effect of public policy outcomes on firm outcomes, yet the effect is very small at r=.04. This again reflects some level of impact uncertainty and shows that even when firms receive public policy outcomes, they may expect that impact not to be as large as some traditional strategy scholarship assumes. This result is in line with the idea of bounded rationality playing a key role in political environments. This can also explain why the direct effect of CPA on firm performance, discussed below, is modest at best.

Indeed, with regard to the post hoc analysis, the results are complex and reflect the variegated nature of CPA’s ability to direct impact a variety of firm level outcomes. These findings also strongly qualify the previous meta-analysis of Lux et al. (2011), which is understandable given slightly older studies. The post hoc results show a weak and marginal direct effect of CPA on firm outcomes (r=.072), which is about half of that reported before (Lux et al., 2011). They also show that TPA does not have a direct effect on outcomes, which suggests that TPA is beneficial indirectly and that the impact of CPA is more pronounced for non-financial measures such as accounting measures (r=.035), albeit with a very small effect size. The largest impact of CPA seems to occur for unique contexts such as bailouts, utility rate increases and airline market share which reflect the CPA or TPA of regulated firms.
and/or financial firms and maybe a proxy for higher levels of political ability or know how. This is in line with the idea that some firms, especially in some sectors and contexts, are able to develop superior political capabilities (Bonardi, 2008; Henisz, 2003). More research is clearly needed on the exact nature of these capabilities.

These results also reflect a context that is typically less public (though TARP monies were publicized the process leading to their allocation was confidential). The results thus support the existence of ‘impact uncertainty’, i.e., the uncertainty coming from the fact that firms might underestimate the impact of public policies on their performance. But this may also reflect an additional source of uncertainty, perhaps termed as ‘CPA investment uncertainty’, which could reflect the possibility that firms over-, under- or mis-invest in CPA. As noted above the study’s post hoc meta-analytical results show that when the outcomes firms seek are firm specific they may have the expertise to navigate the different types of uncertainty inherent in the political arena. Here again, our study should open up many avenues for future research both at the theoretical and at the empirical level. It seems crucial to understand why and how firms might mis-spend in CPA compared to the benefits they can generate, and how this costly process might be halted. Internal problems such as the ones highlighted in agency theory should also be seriously considered in that context (Coates, 2012). Managers may also hold strong beliefs that lobbying works or that hiring former politicians to the board works. Yet, Lux et al. (2011) find that market based opportunities will be negatively related to CPA; CPA may act as a substitute for other endeavors. In other words, “firms invest in CPA due to a lack of more attractive economic investments” (p. 230). This could indicate that firms have an either-or mentality when it comes to CPA and given our findings this may not be a viable view. Either way future work should unpack this
dynamic. The existence of public policy process and outcome uncertainties, on the one hand, and the widely held assumption in much of extant CPA literature as to the ability of firms to exact influence over policy issues (Teachout, 2014), on the other hand, may indicate that firms themselves over estimate the ease of political access and influence. Indeed some studies show firms are not very precise at targeting the right public policy officials or at having a precise political strategy necessary to leverage firm CPA (Wright, 1990). While Hall and Deardoff (2006) show that exact matching between lobbyists’ agendas and public policy makers’ views is necessary to achieve effective access, Cooper, et al. (2010) show that firms that diversify their political donations to more candidates for office do better than those that do not, indicating CPA can be more of an insurance policy than a targeted influence tool. Lord’s (2000, 2003) work also indicates firms spread their CPA to increase access. The mismatch between matching and targeting those officials whose agendas and views match those of the firm and actual firm behavior can also explain our results and confirm the bounded rationality of engaging in CPA effectively.

Lastly, in their review of the nonmarket strategy literature, Mellhai et al. (2015) suggest that firms use CPA very often for buffering purposes, i.e. to protect them from unwanted political interferences, which they view negatively. Meznar and Nigh (1995) view the buffering function of CPA as its main rationale, yet it may not be effective in terms of improving the firm’s bottom line. This view is in line with ours in the sense that buffering activities are less likely to be cleanly related to superior performance. In fact, buffering activities in and off themselves suggest that the uncertainty that firms face is high. In other words if one purpose of CPA is to insulate to the firm from outside interference or dependency then perhaps a traditional scholarly focus on CPA outcomes is misplaced.
Overall, the meta-analytic findings question the ability of CPA to produce strong tangible outcomes when explored via its effects on public policy outcomes and firm level outcomes (with some exceptions). CPA may not be very effective at impacting public policy making, and in turn public policy making, even if managed through CPA, may only be weakly predictive of corporate performance. Thus, our findings qualify both the conclusions of Ansolabehere et al. (2003) and part of the Lux et al. (2011) study and reflect a more nuanced view of CPA reality.

**Limitations**

As with any meta-analysis this study faces limitations. First, we tried to include all pertinent and relevant scholarship to assess the relationship between CPA and firm outcomes but may have missed some non-published and/or non-accessible work, generating a possible research bias. We tried to overcome this bias by looking at review pieces, SSRN and Google for possible working papers but cannot be fully certain we covered all non-published work. Second, there is the issue of unsystematic variance or noise – as noted in the results section we found evidence for the heterogeneity of our mean effect sizes for several of our focal relationships – but were able only to model a few common moderator variables in the meta-regression with. There are other variables we were unable to systematically derive as they did not appear consistently in all the studies. Third, behind the scenes (unreported) CPA, likely a powerful form of CPA (Reich, 2010) was not modeled in this meta-analysis as most scholarship cannot easily assess its impact on policy making. Fourth, our sample is purposefully limited to studies in the US, a strength of this study but which also raises the question of whether these results would hold in a different institutional context. Obviously, we cannot really address this question here, but it is worth noting that our results are
somewhat compatible with what managers expressed in a very large World Bank survey covering thousands of firms in many countries (World Business Environment Study) (Macher and Mayo, 2012). At the same time studies on authoritarian regimes such as China (Eckhardt, 2011; Steinberg, 2009) or developing nation regimes that need IMF help (Faccio et al., 2006) or corrupt regimes such as Indonesia (Gomez and Jono, 1997) strongly indicate that firms and interest groups do have sway over public policy making, strongly qualifying this study’s findings to the U.S. setting but not necessarily beyond.

Conclusion

Much of the research on CPA, at least in the field of management, assumes that it is an effective non-market strategy that provides to access legislators, influences public policy making processes and generates rents or benefits for firms. Our exploratory analysis is not as sanguine. We find only weak evidence to support the view that CPA, either indirectly (or even directly), impacts firms’ bottom line. This by no means indicates that CPA is ineffective. Since we found significant and systematic variance for many of the relationships we explored (in terms of non-homogeneity of the mean effect size) it is clear that contexts exist under which CPA is more and is less effective. However one should view CPA and its supposed benefits more cautiously and in a nuanced manner than extant scholarship assumes and examine firm CPA as reflecting less than a cohesive and well understood strategy and more as one which firms are struggling to execute effectively and which involves much higher levels of uncertainty than previously acknowledged.
REFERENCES (References starting with an asterisk were included in the meta-analysis)


FIGURE 1: CPA, PUBLIC POLICY AND CORPORATE PERFORMANCE

Hypotheses 1 and 2

CORPORATE POLITICAL ACTIVITY
- Campaign contributions
- Lobbying
- Political connections
- Other interactions with public policy makers
- Trade association political activity

POLICY OUTCOMES
- More or less preferred
- Legislative vs. regulatory decisions

CORPORATE PERFORMANCE
- Market position
- Accounting and financial measures
- Other measures

FIGURE 2: COMPETING VIEWS REGARDING THE PERFORMANCE OF CORPORATE POLITICAL ACTIVITY

CPAs LEAD TO POSITIVE OUTCOMES

LOW INFLUENCE UNCERTAINTY
- Policies allocated through contests and at equilibrium
- When they opt to use CPAs, firms get policies close to their preferred position
- Access is relatively easy to model and assess

LOW PUBLIC POLICY IMPACT UNCERTAINTY
When they use CPA to get a policy, firms correctly evaluate the implications of this policy for the firm overall performance

CPAs DO NOT LEAD TO POSITIVE OUTCOMES

HIGH INFLUENCE UNCERTAINTY
- Policy-making is a dynamic process, with hard to predict moves from various players
- When they use CPA, firms do not have much influence on the policies ultimately chosen

HIGH PUBLIC POLICY IMPACT UNCERTAINTY
- Causal ambiguity about the future implications of a policy
- When they use CPA to get a policy, firms do not correctly evaluate the implications of this policy for the firm overall performance
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>N</th>
<th>K</th>
<th>R</th>
<th>$\sigma^2_e$</th>
<th>$\sigma^2_r$</th>
<th>$\sigma^2_{\rho}$</th>
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K= number of effect sizes, N= Total sample size, R= Mean effect size, $\sigma^2_e$= Sampling error variance, $\sigma^2_r$= Variance of sample effect size, $\sigma^2_{\rho}$=Variance in population effect size.
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<td>Methodology (event modeling)</td>
<td>.03*</td>
</tr>
<tr>
<td>F</td>
<td>3.92***</td>
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<tr>
<td>Adjusted R square</td>
<td>.84</td>
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</table>

†p<.10, * p<.05, **p<.01, ***p.001
<table>
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<tr>
<th>Post hoc analysis</th>
<th>N</th>
<th>K</th>
<th>R</th>
<th>$\sigma^2_e$</th>
<th>$\sigma^2_r$</th>
<th>$\sigma^2_p$</th>
<th>Homogeneity test $\chi^2$ value</th>
<th>95% confidence interval for $r$</th>
<th>Significance of $r$ effect ($\mu \neq 0$)</th>
<th>$I^2$</th>
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<tbody>
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<td>Financial outcomes</td>
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<td>1. CPA is associated with firm level outcomes (overlapping sample)</td>
<td>489435</td>
<td>297</td>
<td>.036</td>
<td>.0000</td>
<td>.0050</td>
<td>.0050</td>
<td>2717****</td>
<td>.17, -.10</td>
<td>NS</td>
<td>.90</td>
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<td>2. CPA is associated with firm level outcomes</td>
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<td>.072</td>
<td>.0000</td>
<td>.0014</td>
<td>.0014</td>
<td>423***</td>
<td>.14, -.01</td>
<td>P&lt;.10</td>
<td>.75</td>
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<td>3. Trade organizations political activity is associated with firm level outcomes</td>
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<td>50</td>
<td>.019</td>
<td>.0001</td>
<td>.0020</td>
<td>.0019</td>
<td>27.22</td>
<td>.10, -.06</td>
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<td>.45</td>
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<td>4. CPA is associated with cumulative abnormal stock returns</td>
<td>86503</td>
<td>102</td>
<td>-.08</td>
<td>.0000</td>
<td>.0022</td>
<td>.002</td>
<td>182**</td>
<td>.01, -.17</td>
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<td>.88</td>
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<td>5. CPA is associated with market value</td>
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<td>.032</td>
<td>.0000</td>
<td>.0040</td>
<td>.0040</td>
<td>679.22**</td>
<td>.16, -.09</td>
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<td>.62</td>
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<td>6. CPA is associated with other (non financial) firm level outcomes</td>
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<td>75</td>
<td>.185</td>
<td>.0000</td>
<td>.0020</td>
<td>.0020</td>
<td>4522.2****</td>
<td>.27, .10</td>
<td>P&lt;.001</td>
<td>.92</td>
</tr>
</tbody>
</table>
Appendix: Text used to search for published an unpublished work:

Author Bios

Michael Hadani

Michael Hadani is the TransAmerica Corporation Professor of Business Policy at School of Economics and Business Administration at Saint Mary’s College of California. He earned his PhD from Syracuse University (USA). His research focuses on firms’ non-market strategies and specifically on how firms interact with government entities and how they seek to leverage their political ties to advance their goals as well as how firms use political strategies in the context of corporate social behaviour. His research has been published in major research outlets including the Journal of Management, Strategic Management Journal, the Journal of Organizational Behaviour, and The Journal of Business Research. He serves on the editorial board of the Journal of Management and Business & Society.

Jean-Philippe Bonardi

Jean-Philippe Bonardi is a Professor of Strategic Management and currently the Dean of HEC Lausanne, the Faculty of Business and Economics of the University of Lausanne (Switzerland). He earned his PhD from HEC Paris (France). His research focuses on how firms devise strategies to participate in the development of public policies and how they manage the relationships with external
stakeholders (media, NGOs, activists, consumer groups, etc.) in order to do so. His research has been published in major international research outlets including the Academy of Management Journal, the Academy of Management Review, or the Strategic Management Journal. He also served as an Associate Editor of the Academy of Management Review.

Nicolas Dahan
Nicolas M. Dahan, PhD, is an Associate Professor of International Business and Strategy, at California State University –Monterey Bay, College of Business. His research interests focus mainly on the area of non-market strategies (in particular, corporate political activity, as well as corporate social responsibility and corporate governance). His scholarly work has appeared in international refereed outlets such as Business & Society, Journal of Business Ethics, Journal of Business Research, Human Relations, Long Range Planning as well as the Academy of Management Best Paper Proceedings.