WORKING PAPER

THE RELATIONSHIP BETWEEN POLITICAL CONNECTIONS
AND THE FINANCIAL PERFORMANCE OF
INDUSTRIES AND FIRMS

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Abstract

The US federal government's response to the financial crisis was an unprecedented increase in government subsidies, grants, and contracts given directly to specific private businesses. The terms "crony capitalism" and "cronyism" are now widely used to describe the modern relationship between government and private business. Cronyism is a system in which success in business is determined by political connections rather than market forces. In this paper we estimate the extent to which industry-level and firm-level performance is determined by political connections rather than normal market forces. Our results suggest that corporate political activity is positively correlated with executive compensation measures, but not robustly with firm performance and profitability measures. This suggests that political connections have no significant effect on the performance of firms or particular industries in most cases, but that company executives do indeed benefit from having closer ties with the political process.

The Relationship between Political Connections and the Financial Performance of

Industries and Firms

Russell S. Sobel and Rachel L. Graefe-Anderson

I. Introduction

The US federal government's response to the recent financial crisis and recession has included

an unprecedented increase in the amount of government subsidies, grants, and contracts given

directly to *specific* private businesses. Not surprisingly, such intervention has led, in recent years,

to increased attention to and scrutiny of the relationship between corporate interests and

government interests. The correlation between the government funding or attention received by

specific companies and their political connections and lobbying activity has been a subject of

debate and media investigation.[1] The *Economist* magazine featured a story showing how the 50

companies with the most intensive lobbying activities in the S&P 500 have outperformed the rest

of the index by 11 percent per year.[2]

The impact of corporate political activity has received considerable attention in recent

academic literature. Using various measures of political connectedness (or activity), findings

include a positive relationship between political connectedness and firm value (Faccio, 2006;

Faccio and Parsley, 2009), a positive relationship between campaign contributions and future

returns (Cooper, Gulen, and Ovtchinnikov, 2010; Claessens, Feijen, and Laeven, 2008) or

excess returns (Hill, Kelly, Lockhart, and Van Ness, 2013), and a positive relationship between

political connectedness and both receipt of government contracts and firm contributions to

particular politicians (Tahoun, 2014; Duchin and Sosyura, 2012). These results suggest there is

value for a corporation and its management in expending energy on developing and enhancing

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[1] See Plumer (2011), Thiessen (2011), Leonnig and Stephens (2011), and Bauer (2010).
[2] See the *Economist* (2011).

political connections. However, the evidence is mixed, and it is not clear whether the gains from such activity are based on market forces rather than political favoritism. In contrast to these papers, Hadani and Schuler (2012) document a negative relationship between firm performance and political relationships. Further research in the area illustrates a positive connection between the likelihood of receiving a government bailout and political connectedness (Faccio, Masulis, and McConnell, 2006; Duchin and Sosyura, 2012), a positive relationship between political connectedness and access to bank finance (Claessens, Feijen, and Laeven, 2008), and a negative relationship between the quality of earnings and political connections (Chaney, Faccio, Parsley, 2011).

A contrasting strand of the literature suggests that corporate political activity can lead to (or be associated with) agency costs (Kim, 2008; Coates, 2012). Furthermore, while Duchin and Sosyura (2012) find a positive relationship between political connectedness and receipt of funds under the Troubled Asset Relief Program (TARP), they also find that politically connected firms underperform unconnected firms, suggesting a distortion in investment efficiency. And while Tahoun (2014) finds a cyclical relationship between politicians' stock ownership, firm contributions to politicians, and subsequent contracts to firms, he also finds a negative cyclical relationship. That is, politicians may also divest stock ownership and, when they do so, those firms stop contributions, lose future contracts, and exhibit poorer performance. Ultimately, the picture painted by existing literature is unclear, with mixed results. In addition, since the recent financial crisis, the scale and scope of both government subsidies and political lobbying has grown by orders of magnitude. Thus, it is not clear whether results on data from before the TARP and American Recovery and Reinvestment Act (ARRA) programs hold true using more recent data.

In this paper we empirically measure the extent to which both industry-level and firm-level performance is determined by political connections rather than the normal forces of the marketplace. Our measure of "cronyism" is based on lobbying expenditures, campaign expenditures, or a combination of the two. We specifically focus on lobbying expenditures for a large part of our analysis because, as discussed below, such expenditures have increased dramatically over our time frame. Further, recent literature reveals a strong connection between long-term political relationships and lobbying activity (Kostovetsky, 2011). We begin by examining data aggregated to the industry level on firm financial performance and executive compensation matched with data on political activities to see the extent to which the allocation of resources across industry sectors is distorted by political connections. We then examine similar firm-level data to see to what extent the relative performance of firms within each industry is influenced by political connections. Because some government policies benefit an entire industry while some benefit specific firms, the distinction and separate analyses are worthwhile.

Lastly, we investigate whether political activity has any relationship with CEO compensation. The idea here is that, if political expenditures represent an agency cost to shareholders, this might show up as rent extraction by the CEO. In other words, even if corporations benefit from political spending, those benefits may go primarily to management rather than to shareholders. This would be especially troubling because it could indicate market distortion *as well as* agency costs within a subset of firms. Few papers have examined the relationship between executive compensation and corporate political activity. Joskow, Rose, and Wolfram (1996) investigate the pay of CEOs of electric utilities by state. They find that, in states they characterize as more "anti-business," electric-utility CEOs' pay is lower than in states that are considered to have more favorable business conditions. More recently, Werner (2012) finds

evidence to support a positive relationship between corporate political action committee (PAC) donations and executive compensation. Coates (2012) posits a positive association between managerial ambitions and firms' political expenditures and finds that a significant number of CEOs who retired by 2011 obtained government positions after retirement. In this paper, we endeavor to expand on this related literature as well.

The summary of our findings is that, despite such increased involvement by government in the marketplace, and greatly expanded political activities of firms, we find little evidence to support the idea that political activity undertaken by corporations leads to improved performance for *firms and their shareholders* at both the industry and firm level. We do however find a robust and significant positive relationship between political activity and executive compensation. Therefore, while industry and firm-level performance are not robustly related to "cronyism," executive compensation is—suggesting that any benefits gained from corporate political activity are largely captured by firm executives.

II. Recent Trends and Examples

While previous literature has examined the relationship between measures of corporate political activity and performance, the historical data bear almost no resemblance to the recent post-financial-crisis data. Quite simply, both the amount of government subsidies, loans, contracts, etc. and the amount of corporate lobbying have expanded by orders of magnitude since 2007. For example, in October 2008 TARP authorized $700 billion in expenditures to purchase assets and equity from more than a dozen financial institutions. By March 2011, $432 billion had been disbursed. Also, in late 2008, the Federal Reserve's "Maiden Lane Transactions" set up limited-liability companies with nearly $100 billion to aid JPMorgan Chase, Bear Stearns, and AIG.

Beginning in early 2009, the ARRA began spending an estimated $787 billion (which in January 2012 was increased to an estimated $840 billion). As of May 11, 2012, the ARRA had provided approximately $300 billion in tax benefits, $230 billion in contracts, grants, and loans, and $225 billion in entitlements, going to thousands of private companies.[3] Table 1 presents a summary breakdown of the recipients of the largest government disbursements under these two programs.

Table 1. Recipients of the Largest TARP and ARRA Disbursements

Company	Government intervention	TARP/ARRA
American International Group (AIG)	$40 billion	TARP
Citigroup	$45 billion + $306 billion in asset guarantees	TARP
Bank of America	$45 billion + $1.1 trillion in asset guarantees	TARP
JPMorgan Chase	$25 billion	TARP
Wells Fargo	$25 billion	TARP
GMAC Financial Services	$27.3 billion	TARP
Goldman Sachs	$10 billion	TARP
Morgan Stanley	$10 billion	TARP
PNC Financial Services Group, US Bankcorp, Capital One Financial, BB&T, Regions Financial Corporation, American Express, Bank of New York Mellon Corp, State Street Corporation, Discover Financial	<$10 billion each	TARP
General Motors and Chrysler	$18.4 billion	
Science Applications International Corporation	>$300 million	ARRA
Johnson Controls Inc.	>$300 million	ARRA
URS Operating Controls	>$200 million	ARRA
Duke Energy	>$200 million	ARRA
Lockheed Martin	>$200 million	ARRA
Centerpoint Energy	>$200 million	ARRA

Sources: Bauer (2010), Kiel (2008), Recovery.gov (2012).

In addition to direct payments, top government officials have helped give many companies, including Ener1, Johnson Controls, and Serious Materials, free publicity through mentions in speeches (such as the president's January 2012 State of the Union address) or high-profile visits by presidents and vice presidents to company facilities, giving them valuable media

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[3] See Recovery.gov (2012).

exposure and brand recognition in the marketplace.[4] Thus, political connections don't just produce an increased probability of receiving payments from the government; they also indirectly benefit firms that receive major national media exposure from their ties to high-ranking political officials. Some of the close relationships between companies receiving benefits from government and the lobbyists who represent them to government officials have come under major scrutiny, and some of these closely connected companies' failures, such as that of Solyndra Inc., have brought major national media attention.

As a result of this major increase in government involvement, companies have rushed to make sure their interests are being heard in the political process that allocates these government favors. In 2010, the market for office space in Washington, DC, became the highest-priced in the nation, and many companies have set up new offices in or moved their offices to the DC area.[5] Total expenditures on lobbying the federal government rose by almost 25 percent from 2007 to 2010, to more than $3.5 billion. Lobbying by the finance, insurance, and real-estate sector alone has been over $450 million per year since 2008, and the industry is now represented by approximately 2,500 individual registered federal lobbyists. In addition to increasing its lobbying activities, the finance, insurance, and real-estate sector has also increased political donations given directly to federal political campaigns. These donations are made largely through PAC contributions, rising from $287 million during the 2006 election cycle to $503 million during the 2008 election cycle and $319 million during the 2010 election cycle. Some of the industrial sectors to which ARRA money is specifically targeted, such as energy, have seen the biggest increases in lobbying activity, with a 66 percent increase in federal lobbying expenditures between 2007 and 2010. The industry now spends over $450 million annually on lobbying and is

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[4] See, for examples, Dougherty (2012), Stossel (2010), Snyder and Martin (2011), and Johnson Controls (2011).
[5] See Cho, Mufson, and Tse (2009), Clabaugh (2010), and Lewis (2010).

represented by over 2,200 registered federal lobbyists.[6] Similarly, the energy sector has increased its donations to federal political campaigns, raising them from $51 million during the 2006 election cycle to $81 million during the 2008 election cycle, and $76 million during the 2010 election cycle.

Political connections, or, more precisely, government grants, contracts, and bailouts, are becoming a more important determinant of which firms are successful and which are not. The 2011 Inc. 500 list of fastest-growing companies contains a number of companies that received ARRA funds near the top of the list. An example is Solazyme Inc., the second-fastest-growing private business on the list.[7] Solazyme Inc. has received three ARRA awards worth over $25 million (two contracts and one grant).[8] These awards are large proportions (over two-thirds) of Solazyme's annual revenues of $38 million. Not surprisingly, Solazyme's political activities have shown a significant increase at the same time. Solazyme's federal lobbying expenditures rose from $20,000 in 2007 and 2008 combined to $232,000 in 2010 and 2011 combined. In addition to its lobbying expenditures, top employees and executives from Solazyme made almost $10,000 in campaign donations to federal political candidates from 2008 to 2011. Solazyme's number of registered federal lobbyists went from zero in 2007 to three by 2010, including one "revolving door" lobbyist who had previously served as a legislative director for two US Congressmen.[9]

The Center for Responsive Politics considers lobbyists "revolving door" if they are former federal employees such as executive branch officials or senior congressional staffers. These lobbyists tend to be more influential due to their prior political connections. For a

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[6] See Center for Responsive Politics (2012).
[7] For the list see Inc. 500 (2011).
[8] See Recovery.gov (2012).
[9] See Center for Responsive Politics (2012).

company, choosing to employ such revolving-door lobbyists is a rational strategy. This behavior is also consistent with prior economic literature on how firms behave when they have significant dealings with the government in a regulatory environment. Because revolving-door lobbyists already have relationships and connections—or, more formally, industry-specific human capital in the political arena—they can be more cost-effective and more successful in representing the firm's interests.[10]

Many American companies receiving significant government attention and funding show patterns in their political activities similar to Solazyme. The now-famous Solyndra Inc., which failed after being hailed as a poster-child of successful government grants helping an innovative business, received three awards with a total value of over $535 million in ARRA funding (two grants and one loan before declaring bankruptcy on September 1, 2011). Solyndra's annual federal lobbying expenditures during this time soared, from $160,000 per year in 2008 and 2009 to annual amounts of $550,000 in both 2010 and 2011. Solyndra increased its number of lobbyists from three in 2008 to eleven in 2010 and 2011, and all eleven of these were considered "revolving door" lobbyists.[11] Similarly, Johnson Controls Inc. has received more than 150 awards totaling over $800 million in ARRA funding. Johnson Controls has increased its federal

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[10] This literature mostly falls into the "capture theory of regulation" literature; see, for examples, Stigler (1971), Laffont and Tirole (1991), McChesney (1987), Shleifer and Vishny (1998), Frye and Shleifer (1997), and Djankov et al. (2002).

[11] See Snyder and Martin (2011), Recovery.gov (2012), and Center for Responsive Politics (2012). Solyndra's lobbyists included Alex Mistri, who held previous positions ranging from press aide to the chiefs of staff for congressmen Bill Shuster, Robin Hayes, Lauch Faircloth, and Alfonse D'Amato and special assistant to the president for legislative affairs in the Executive Office of the President; Catharine Ransom, former senior advisor to Congressman Bob Graham and senior policy advisor to the Senate Environment & Public Works Committee; Gregg Rothschild, former chief counsel and deputy chief of staff for the House Energy & Commerce Committee, legislative director for Congressman John Kerry, and aide to Congressman John D. Dingell; Chris Fish, former chief of staff for Congressman John E. Sweeny and aide/staff for Congressman Alfonse M. D'Amato; Steve Ham, former legislative correspondent for the House Minority Whip and military legislative assistant for the House Majority Leader; and Gregory Nicherson, former staff director for the House Subcommittee on Select Revenue Measures and tax counsel for the House Ways & Means Committee.

lobbying expenditures by 50 percent, and it went from having seven lobbyists in 2007 to seventeen by 2011.[12]

III. The Concept of Cronyism and Review of Related Literature

The concept of "crony capitalism" generally describes a situation in which success in business is determined by political connections rather than market forces. We refer to our measure (which uses lobbying expenditures, PAC campaign contributions, and combinations of the two) as "cronyism" in this paper. However, it is important to note that the general concept, whether it is called "cronyism," "crony capitalism," or another variation on the terms, is a situation where political connections replace market forces in determining which companies are successful in business and which are not. Put more simply, cronyism is when the normal consumer-driven profit-and-loss signals in an economy are significantly distorted through government-granted favors. These abnormal returns in exchange for political favors may benefit company owners/shareholders or corporate executives. On the other hand, "cronyism" may not produce abnormal returns at all. If the lobbying industry is sufficiently competitive, the returns to lobbying should be no higher than the normal market return. In addition, some political activity and lobbying may be to prevent the imposition of new regulations or laws, in which case the returns are harder to identify in firm financial-performance data.

The economic literature on "rent seeking" (following the work of Gordon Tullock, 1967) and "unproductive entrepreneurship" (following the work of William Baumol, 1990, 1993, 2002)

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[12] See Johnson Controls (2011), Recovery.gov (2012), and Center for Responsive Politics (2012). Notable "revolving door" lobbyists for Johnson Controls include Paul D. Grimm, former acting assistant secretary of environmental management for the US Department of Energy; David Beightol, former special assistant on intergovernmental affairs to the Office of Intergovernmental Affairs in the White House, and aide/staff to Congressman F. James Sensenbrenner Jr.; Andy Scott Wright, former chief of staff to congressmen Brad Sherman and Rick Boucher; and Mark F. Wagner, former district ombudsman for Congressman Les Aspin and special assistant to the assistant secretary for economic security in the US Department of Defense.

suggests that individuals and businesses will devote effort and resources toward securing favors

or returns through the political process as long as such action is profitable and generates a

sufficient rate of return.[13] As the amount of money available through government allocation

(relative to the marketplace) expands, the return to investing time and effort in the political

marketplace rises, and subsequently causes an expansion in the level of lobbying and political

action in an attempt to secure these favors. The expansion in political activity such as lobbying

that has resulted from the recent increase in government spending is therefore entirely consistent

with economic models of the political process from the field of public-choice theory.

Previous academic research using firm-level data, some of which was reviewed in our

introductory section, has found mixed results regarding whether firms that devote resources to

lobbying and campaign contributions, or that have politically connected members on their boards

of directors, have higher financial returns or profitability.[14] For example, Faccio (2006) identifies

a positive market reaction to announcements of a new political connection for a firm. Fisman

(2001) identifies a positive relationship between political connections and firm performance

among firms in Indonesia. And Cooper, Gulen, and Ovtichinnikov (2010) document positive

future stock-market returns for companies with higher campaign contributions. Similar results

relating firm accounting performance to political activity are found by Chen, Parsley, and Yang

(2013) and Borisov, Goldman, and Gupta (2013), while Hill et al. (2013) find a positive

relationship between "excess" returns and political activity. Claessens, Feijen, and Laeven

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[13] For related literature on these two topics, see also Becker (1983), Ekelund and Tollison (2001), Krueger (1974), Posner (1975), Laband and Sophocleus (1988), McChesney (1987), Mixon, Laband, and Ekelund (1994), Sobel and Garrett (2002), Tollison (1982), Tullock (1980, 1989, 1993), Boettke (2001), Boettke and Coyne (2003), Coyne and Leeson (2004), Sobel (2008), and Murphy, Shleifer, and Vishny (1991).

[14] See Cooper, Gulen, and Ovtchinnikov (2010), Ovtchinnikov and Pantaleoni (forthcoming), Faccio (2006), Faccio and Parsley (2006), Faccio, Masulis, and McConnell (2006), Roberts (1990), Jayachandran (2006), Ansolabehere, Snyder, and Ueda (2004), Fisman et al. (2006), Fisman (2001), and Goldman, Rocholl, and So (2009).

(2008) find that stock performance of firms in Brazil is better for politically connected firms, and further link this to access to bank finance.

Two very recent papers have found mixed results regarding political connectedness and firm performance. On the one hand, Tahoun (2014) and Duchin and Sosyura (2012) document a positive relationship between political connectedness and the receipt of government contracts. However, both papers also document a negative side to this relationship. Tahoun (2014) specifically documents that when politically connected firms lose that connection, future performance suffers. He further shows that when politicians reach retirement, this can be a special concern for firms connected with those particular politicians. Duchin and Sosyura (2012) show that, though politically connected firms receive more government money, investment in them still underperforms unconnected firms. On the other hand, Faccio (2010) shows that politically connected firms tend to underperform when compared to non-politically connected firms on the basis of accounting performance (as opposed to market performance).

Many of the papers documenting the value of political activity focus on countries with weak governance and high levels of corruption. More recent papers that focus on the issue in countries with stronger governance and lower levels of corruption find more mixed results. Fisman et al. (2006), for instance, examine the value of firm political connections to former vice president Richard Cheney. They estimate the value of those connections to be zero. And two other recent papers find that political connections only have value in a crisis (Querubin and Snyder, 2011; Acemoglu et al., 2013).

Consistent with the literature considered above, a related literature discusses political connections as a way for firms to avoid financial distress when they get into trouble and

documents a positive relationship between government aid and political connections.[15] Yu and Yu (2010) find that companies spending more on lobbying activities are less likely to be caught engaging in fraudulent behavior. Another related literature shows that these money flows to politicians have a significant influence on how the politicians behave and whether they are able to remain in office (i.e., win reelection). The literature also shows that the allocation of political efforts by companies also follows a rational and predictable pattern, with monies more heavily directed toward those politicians with greater power and influence in government decision-making.[16]

In this paper, however, we examine the impact at both the industry level and the firm level. The research question involves whether higher industry-level performance figures or individual firm-level performance measures may derive, at least in part, from governmental intervention or political activity (i.e., "cronyism"). Specifically, we are examining whether political activity itself seems to drive higher measures of financial performance. Furthermore, the central question is not just whether these government favors exist in return for political effort, but more importantly whether they create a significant and noticeable distortion in the overall profitability of specific firms or industries—actually determining which companies or industries are successful and which are not. If so, then we expect this to show up in the following ways. First, we expect to see a positive relationship between industry performance and political activity. Such a relationship could be an indicator that whole industries receive favorable political treatment and that such treatment corresponds directly to higher profits. Second, we expect to see a positive relationship, within an industry, between firm performance and political

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[15] See Faccio, Masulis, and McConnell (2006), and Faccio and Parsley (2009).
[16] See, among many others, Snyder (1990), Grier and Munger (1991), Grier, Munger, and Roberts (1994), Romer and Snyder (1994), Ansolabehere and Snyder (1999), Kroszner and Stratmann (1998), Langbein and Lotwis (1990), Durden, Shorgen, and Silberman (1991), and Stratmann (1991, 1995, 1998, 2005).

activity. Such a positive relationship does not *necessarily* mean that the distortion described above exists. It simply supports the notion. Lastly, if management is the primary beneficiary of gains made in this manner, we expect to see a positive relationship between political activity and CEO compensation.

Consider the example of a government contract or transfer to a company in the amount of $300,000. If this goes to a company with normal annual revenues of $500 billion, it will be only a "drop in the bucket" so to speak, and will not significantly influence whether that specific company outperforms its rivals or stays in business. On the other hand, the same $300,000 government contract or transfer to a company with normal annual revenues of $500,000 may significantly influence the relative performance and survivability of the firm. Thus, for our purposes it is not sufficient to ask whether there are links between political activity, favors from government, and firm financial performance, but rather whether they are large enough to significantly distort the normal profit-and-loss signals sent by the private marketplace—that is, to be substantial determinants of a firm's relative financial performance—determinants of the winners versus the losers in an industry.

The value in evaluating industry-level performance as well as firm-level performance lies in distinguishing whether political favor can apply to whole industries, a relatively unexplored question. Our industry-level question of interest is whether industries that have higher levels of political activity have significantly higher levels of firm performance, which may be due to the many favors they are able to get through taxes, subsidies, regulatory rules, and other factors that are linked to their political lobbying efforts. While theories of cronyism may seem to suggest that the answer would obviously be yes, this isn't necessarily the case even if cronyism is significant. The reason is that there are two types of political favors—the ones that help an entire industry (at

the expense of other industries) and the ones that benefit only certain firms within an industry (at the expense of other firms in that same industry).

Clearly, industry-level government favors, for example subsidies for advertising an entire type of product such as cotton or for purchasing an entire type of product as in the cash-for-clunkers program, would benefit all firms in the industry, causing average firm performance across the entire industry to rise. These types of programs that benefit an entire industry are an example of between-industry competition for political favors. Some industries get benefits from government policy and others do not, and these benefits are likely correlated with the amount of political influence and activity at the industry level. These would be reflected in our initial industry-level analysis.[17]

However, if political activity is mainly pursued by firms to compete for government favors against other firms *within the same industry*, then it could be the case that an industry has a large amount of total lobbying but overall industry performance is not enhanced. That is, only the relative performance of certain firms within the industry is affected; some firms within the industry benefit at the expense of their competitors, but all have to spend money to compete for the favors.[18] For example, say an industry comprises two firms, A and B, and both spend money on lobbying to win a government protection or favor that goes to only one of the firms. While the

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[17] Alternatively, it is also possible that certain industries are more heavily burdened with regulation or government intervention and that, because of this, those industries as a whole are more politically active. In this case, lobbying expenditures may be a defensive maneuver that is taken by the industry as a whole. If this is the case, we would not expect such industries to show improved performance over other industries that spend less on lobbying because they have little or no need. If this is the case, then we may observe no industry-level effect, but there could be a firm-level impact of lobbying. Theoretically, however, that effect could go in either direction. Furthermore, our tests are not designed to distinguish between defensive lobbying and lobbying expenditures directed toward receiving government favors. Thus a limitation of this study is that we cannot separate out results that may indicate defensive lobbying; we recognize this as an area for additional study and possible extension of the current work.

[18] Becker (1983) argues that the competition among interest groups for political favors is zero-sum in influence, such that more political influence by one group necessarily reduces the influence of other groups. So, for example, if one firm becomes more politically powerful it will gain a greater share of government resources that are in effect now not granted to other firms.

firm that wins may have higher returns, the firm that loses the political competition will not, and may even have reduced returns. In these cases there could be high lobbying but little or no effect on overall industry financial performance.

IV. Industry Expenditures on Political Activities

In this section, we introduce the actual data and trends regarding industry expenditures on lobbying and political campaigns. Table 2 summarizes total lobbying expenditures by industry, as reported by the Center for Responsive Politics (2012). All dollar figures are adjusted for inflation to constant (real) 2011 dollars. In the interest of space, table 2 shows industry lobbying expenditures summarized as annual averages by four-year periods, although our regression analysis will use the underlying annual data. The main obvious trend in the raw data is the dramatic overall increase in lobbying expenditures over time across most industries. Industry average annual lobbying expenditures increased in real dollars from approximately $2.5 billion for the period 2000–2003 to approximately $4.2 billion for the period 2008–2011 (a difference that is statistically significant using a traditional difference in means t-test).

The dramatic increase in lobbying expenditures by US industries is further illustrated in figure 1, which shows annual lobbying expenditures from 2000 to 2011. At the industry level, from table 2, this upward trend is evident in 85 percent of industries. The remaining 15 percent of industries exhibit a decline in lobbying expenditures over the period. There is no obvious pattern to the few industries with decreasing expenditures, which include such seemingly unrelated industries as Poultry & Eggs, Lawyers/Legal Services, Telephone Utilities, and Lodging and Tourism. Interestingly, though the trend does move upward over the period, there appears to be a sharp decline at the end (i.e., after 2009).

Table 2. Industry-Level Lobbying Expenditures

Industry	Industry annual averages (in constant 2011 dollars)		
	2000–2003	2004–2007	2008–2011
Accountants	$16,187,866	$21,519,399	$18,764,101
Agricultural Services/Products	$38,639,889	$36,961,743	$40,757,004
Air Transport	$87,977,416	$89,071,036	$107,245,381
Automotive	$64,806,236	$86,087,348	$85,090,262
Beer, Wine & Liquor	$20,609,554	$25,733,060	$25,794,678
Building Materials & Equipment	$13,659,042	$21,812,489	$19,571,390
Business Associations	$99,227,095	$124,367,084	$193,596,892
Business Services	$28,830,923	$50,526,851	$56,868,232
Casinos/Gambling	$29,935,128	$35,869,582	$34,803,646
Chemical & Related Manufacturing	$52,373,654	$53,481,402	$65,506,529
Commercial Banks	$39,813,565	$56,690,814	$74,701,996
Computers/Internet	$111,839,084	$165,995,445	$159,448,432
Construction Services	$10,919,900	$15,452,929	$15,314,573
Credit Unions	$4,252,991	$5,324,841	$11,249,070
Crop Production & Basic Processing	$16,094,545	$19,264,082	$23,800,542
Defense Aerospace	$67,167,915	$62,309,834	$92,962,972
Defense Electronics	$28,327,843	$51,481,723	$59,197,852
Education	$89,458,515	$117,662,090	$122,107,824
Electric Utilities	$155,258,347	$164,429,639	$207,044,084
Electronics Mfg. & Services	$19,811,232	$24,182,646	$26,180,904
Environmental Services/Equipment	$7,327,964	$8,404,202	$8,079,195
Finance/Credit Companies	$33,572,874	$42,722,331	$47,391,261
Fisheries & Wildlife	$1,857,920	$2,598,880	$2,269,028
Food & Beverage	$15,154,262	$20,091,269	$48,886,648
Food Processing & Sales	$14,199,025	$20,638,053	$39,089,251
Forestry & Forest Products	$25,333,878	$28,460,779	$18,861,413
General Contractors	$10,387,908	$13,336,187	$43,841,387
Health Professionals	$74,368,218	$144,225,537	$101,027,358
Health Services/HMOs	$41,100,783	$62,417,182	$352,557,578
Home Builders	$2,867,604	$7,238,107	$8,739,828
Hospitals/Nursing Homes	$73,591,078	$117,592,742	$131,445,386
Insurance	$141,905,113	$190,841,496	$208,010,960
Lawyers/Law Firms	$23,613,258	$31,463,622	$23,383,921
Livestock	$2,333,653	$3,576,590	$3,387,502
Lodging/Tourism	$11,768,663	$12,919,656	$11,737,141
Mining	$14,906,598	$22,323,885	$37,149,403
Misc. Defense	$24,687,203	$55,293,687	$50,516,906
Misc. Agriculture	$1,012,957	$1,149,397	$936,438
Misc. Communications/Electronics	$1,577,406	$3,330,974	$3,861,971

Industry	Industry annual averages (in constant 2011 dollars)		
	2000–2003	2004–2007	2008–2011
Misc. Energy	$24,306,703	$64,192,321	$67,242,789
Misc. Finance	$15,419,288	$24,527,451	$32,777,844
Misc. Health	$5,875,951	$7,403,786	$11,263,649
Misc. Manufacturing & Distributing	$80,460,406	$131,673,047	$238,470,479
Misc. Services	$4,346,009	$4,535,854	$5,961,944
Misc. Transport	$16,850,661	$18,455,538	$18,400,363
Oil & Gas	$83,350,214	$100,298,759	$196,764,853
Pharmaceuticals/Health Products	$230,803,086	$290,170,230	$350,561,545
Poultry & Eggs	$1,536,627	$1,252,373	$1,038,780
Printing & Publishing	$28,184,540	$23,052,131	$17,875,710
Railroads	$40,337,527	$47,589,059	$57,072,765
Real Estate	$93,732,447	$136,816,390	$80,654,411
Recreation/Live Entertainment	$5,895,640	$8,127,794	$9,354,982
Retail Sales	$20,814,795	$28,517,291	$53,968,932
Savings & Loans	$5,191,639	$4,621,893	$1,551,743
Sea Transport	$24,558,673	$30,564,003	$32,492,693
Securities & Investment	$68,728,126	$99,959,415	$124,604,628
Special Trade Contractors	$1,271,477	$2,713,370	$7,106,456
Steel Production	$11,349,885	$13,284,508	$12,950,236
Telecom Services & Equipment	$60,363,446	$88,379,711	$82,323,816
Telephone Utilities	$76,659,315	$91,063,859	$62,064,079
Textiles	$2,004,235	$2,435,573	$2,556,162
Tobacco	$38,771,091	$38,953,442	$31,618,952
Trucking	$9,318,019	$11,370,732	$16,771,092
TV/Movies/Music	$69,810,274	$111,202,890	$152,599,444
Waste Management	$5,057,593	$7,075,508	$8,347,671
TOTALS	$2,547,514,146	$3,411,721,874	$4,264,193,854

Figure 1. Total Lobbying Expenditures, 2000–2010
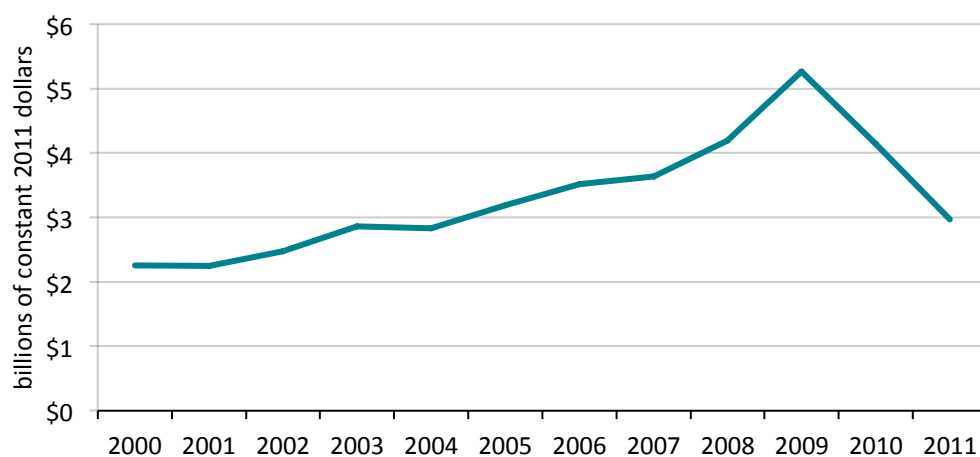
We speculate on several possibilities for this decline since 2009. First, it is possible that the recent recession had a direct impact on the availability of capital to be spent on lobbying. Indeed, when examining political expenditures as a percentage of firms' total assets (which we will show in figure 2), we see no such decline through 2010. Therefore, this could simply be a function of available capital. Second, one would expect the highest levels of political activity to be associated with the highest levels of government "favor giving," and the major spike in the political-activity data does occur quite specifically in the period in which government allocations of both TARP and ARRA funds were being determined. Thus, the decline could be a result of "ramped up" lobbing activities during the time the funds were being allocated. Without further data (i.e., 2012 and onward), of course, we cannot verify this speculation. Third, the advent of the *Citizens United* ruling may have diverted significant funds from lobbying activity to super PACs, which we cannot observe. This seems plausible, especially given the timing, as 2011 represents the year before a presidential election. Lastly, of course, the explanation could involve a combination of those listed above. Particularly, a combination of the first and second explanation seems to provide a plausible story.

Because these industries range in size and in characteristics, a more meaningful way to examine the raw data is to correct for industry size. Specifically, we measure lobbying expenditures as a percentage of the total size of the industry assets and report this in table 3. Averages for the periods 2000–2003, 2004–2007, and 2008–2010 are provided. Typical values range from a fraction of a percent to 1 percent of total assets in an industry. As with the raw figures above, there is a general upward trend here as well, though slightly less pronounced. From the 2000–2003 period to the 2008–2010 period, 75 percent of industries increased lobbying expenditures as a percentage of total assets. Again, there is no clear pattern within the other 25 percent representing a downward trend.

Table 3. Lobbying Expenditures as a Percentage of Total Assets

Industry	2000–2003	2004–2007	2008–2010
Agricultural Services/Products	9.1430%	29.9903%	7.0110%
Air Transport	0.0263%	0.0225%	0.0312%
Commercial Banks	0.0001%	0.0001%	0.0001%
Crop Production & Basic Processing	0.0589%	0.0718%	0.0802%
Defense Aerospace	0.0237%	0.0202%	0.0321%
Defense Electronics	0.0013%	0.0023%	0.0034%
Education	0.7029%	0.7115%	0.5670%
Electric Utilities	0.0057%	0.0056%	0.0069%
Electronics Mfg. & Services	0.0012%	0.0014%	0.0015%
Environmental Services/Equipment	0.0074%	0.0063%	0.0045%
Fisheries & Wildlife	1.2964%	13.3091%	–
Food & Beverage	0.0063%	0.0092%	0.0292%
Food Processing & Sales	0.0024%	0.0032%	0.0060%
Forestry & Forest Products	0.3582%	0.3922%	0.3255%
General Contractors	0.0155%	0.0116%	0.0717%
Health Professionals	0.0546%	0.0907%	0.0617%
Livestock	0.3011%	0.1204%	0.1637%
Lodging/Tourism	0.0080%	0.0101%	0.0093%
Mining	0.0051%	0.0039%	0.0043%
Misc. Communications/Electronics	0.0016%	0.0029%	0.0036%
Misc. Manufacturing & Distributing	0.0028%	0.0036%	0.0039%
Oil & Gas	0.0190%	0.0154%	0.0251%
Pharmaceuticals/Health Products	0.0156%	0.0154%	0.0184%
Poultry & Eggs	0.4715%	0.3401%	0.3435%
Printing & Publishing	0.0072%	0.0053%	0.0047%
Railroads	0.0167%	0.0247%	0.0308%
Recreation/Live Entertainment	0.0129%	0.0172%	0.0208%
Retail Sales	0.0048%	0.0054%	0.0113%
Sea Transport	0.0305%	0.0225%	0.0191%
Special Trade Contractors	0.0124%	0.0172%	0.0419%
Steel Production	0.0035%	0.0031%	0.0031%
Telephone Utilities	0.0022%	0.0031%	0.0022%
Textiles	0.0112%	0.0167%	0.0215%
Trucking	0.0414%	0.0394%	0.0898%
TV/Movies/Music	0.2407%	0.3639%	0.5673%
Waste Management	0.0090%	0.0122%	0.0157%

Despite the variation across industries, the overall trend is clearly upward, as can be seen in figure 2, which shows median lobbying expenditures as a percentage of assets (the median is used to help alleviate the overwhelming effect of any outliers).

Figure 2. Median Lobbying Expenditures as a Percentage of Assets, 2000–2010
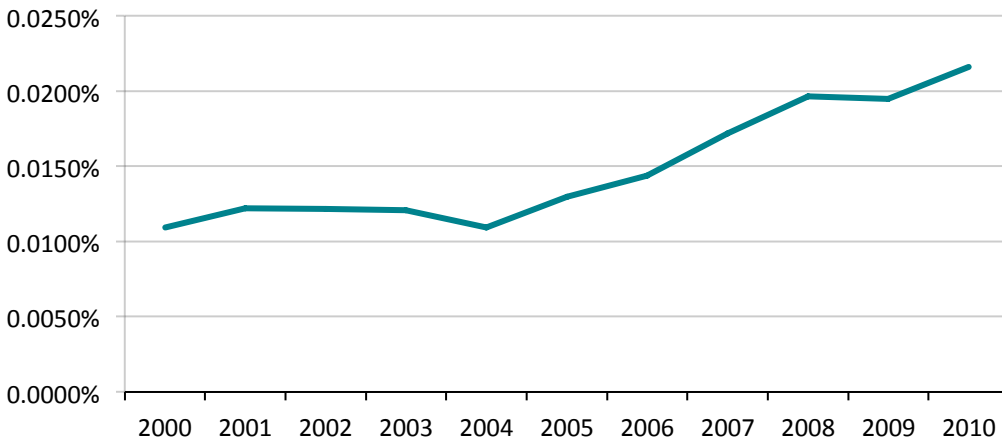
The data presented so far show firm political activities measured by only lobbying expenditures. But another aspect of firm political activity is campaign contributions through PACs. Table 4 shows industry-level PAC contributions from the Center for Responsive Politics. These are clearly much smaller in magnitude than lobbying expenditures, but generally show the same trends. To conserve space we only show the descriptive statistics for the PAC data. Again, all dollar variables are corrected for inflation to constant 2011 dollars.

While the PAC contributions are smaller in magnitude, we will explore the relationship between financial performance and political activities using the lobbying data alone, the PAC data alone, and the sum of the two activities to see whether there are any major differences depending on how political activities are measured.

Table 4. Descriptive Statistics for Annual Industry PAC Contributions, 2000–2010

Industry	Average PAC contributions (in constant 2011 dollars)		
	Mean	Median	Standard deviation
Accountants	$5,364,915	$5,274,369	$636,698
Agricultural Services/Products	$3,856,143	$3,600,904	$899,151
Air Transport	$6,798,734	$6,645,415	$636,264
Automotive	$5,281,007	$5,297,100	$331,763
Beer, Wine & Liquor	$5,011,419	$5,182,206	$1,270,199
Building Materials & Equipment	$2,549,846	$2,371,592	$711,462
Business Associations	$1,835,071	$1,789,578	$273,664
Business Services	$1,468,635	$1,481,140	$286,969
Casinos/Gambling	$1,159,837	$1,140,896	$249,082
Chemical & Related Manufacturing	$2,577,871	$2,448,071	$470,223
Commercial Banks	$8,904,640	$8,954,953	$1,032,006
Computers/Internet	$4,336,921	$4,546,969	$1,348,508
Construction Services	$2,551,698	$2,508,266	$1,173,746
Credit Unions	$2,518,703	$2,644,960	$474,715
Crop Production & Basic Processing	$4,845,331	$4,727,888	$1,280,123
Defense Aerospace	$4,628,201	$4,362,944	$1,245,213
Defense Electronics	$3,324,221	$3,060,452	$1,427,190
Education	$318,672	$265,117	$156,223
Electric Utilities	$10,802,837	$10,705,181	$1,927,332
Electronics Mfg. & Services	$750,617	$829,001	$332,969
Environmental Services/Equipment	$336,237	$354,357	$163,982
Finance/Credit Companies	$3,100,798	$3,349,489	$559,348
Fisheries & Wildlife	$291,060	$283,833	$106,368
Food & Beverage	$3,548,144	$3,345,106	$691,667
Food Processing & Sales	$3,242,081	$3,029,687	$650,033
Forestry & Forest Products	$1,817,956	$1,779,251	$169,888
General Contractors	$3,613,235	$3,853,900	$767,080
Health Professionals	$16,244,756	$14,943,253	$5,025,015
Health Services/HMOs	$3,199,924	$2,974,402	$1,717,782
Home Builders	$2,599,931	$2,475,549	$374,975
Hospitals/Nursing Homes	$5,068,401	$4,818,510	$1,666,638
Insurance	$15,299,762	$14,988,392	$4,030,953
Lawyers/Law Firms	$11,708,699	$11,558,837	$2,975,929
Livestock	$771,604	$788,138	$61,690
Lodging/Tourism	$884,949	$813,920	$267,002
Mining	$1,975,648	$1,879,210	$428,895
Misc. Business	$414,178	$433,917	$121,028
Misc. Communications/Electronics	$137,110	$160,500	$44,049
Misc. Defense	$1,879,402	$2,079,801	$431,182

Industry	Average PAC contributions (in constant 2011 dollars)		
	Mean	Median	Standard deviation
Misc. Energy	$769,035	$687,887	$372,569
Misc. Finance	$1,376,523	$1,353,183	$639,454
Misc. Health	$59,359	$61,700	$49,905
Misc. Manufacturing & Distributing	$5,286,677	$4,599,618	$2,263,362
Misc. Services	$697,994	$675,944	$108,317
Misc. Transport	$518,243	$471,509	$159,848
Oil & Gas	$7,682,014	$6,965,560	$1,718,584
Pharmaceuticals/Health Products	$10,107,829	$9,881,627	$3,854,229
Poultry & Eggs	$624,303	$649,090	$100,690
Printing & Publishing	$731,752	$738,155	$66,660
Railroads	$3,490,594	$3,155,089	$1,304,585
Real Estate	$7,930,487	$8,197,393	$1,681,322
Recreation/Live Entertainment	$361,743	$308,281	$328,846
Retail Sales	$4,787,457	$4,778,640	$1,090,425
Savings & Loans	$700,522	$871,901	$331,519
Sea Transport	$1,352,702	$1,296,109	$429,885
Securities & Investment	$7,610,052	$7,858,185	$1,746,085
Special Trade Contractors	$1,387,840	$1,427,650	$542,839
Steel Production	$650,397	$600,346	$242,342
Telecom Services & Equipment	$2,610,583	$2,689,256	$421,425
Telephone Utilities	$5,692,989	$5,759,621	$330,115
Textiles	$143,401	$144,175	$64,816
Tobacco	$2,156,688	$2,225,792	$305,023
Trucking	$1,368,695	$1,354,271	$131,087
TV/Movies/Music	$5,502,347	$5,330,147	$1,898,497
Waste Management	$352,532	$305,360	$129,375

V. Industry-Level Regression Analysis

We now turn to a more sophisticated econometric investigation of the relationship between political activity and industry performance. Our initial investigation begins by examining lobbying expenditures and aggregated financial fundamentals at the industry level. Financial and compensation data is obtained through the Compustat and Execucomp databases. The definitions of the industry, as provided by the Center for Responsive Politics, are matched with NAICS codes to combine the data for all industries for which a match can be identified.

To examine financial performance, we investigate a range of commonly used financial ratios and indicators. From the Compustat database we are able to obtain data from company annual reports on total assets, total liabilities, total equity, total sales, and net income, and then compute each firm's leverage (total debt divided by total assets), market capitalization (the product of the number of shares outstanding and the calendar year closing stock price for the firm), and market-to-book ratio (total market capitalization divided by total assets). The specific dependent variables we examine are

- Return on assets (ROA)—net income divided by total assets

- Return on equity (ROE)—net income divided by total equity

- Profit margin—net income divided by total sales[19]

- Tobin's q—(total market capitalization minus total liabilities) divided by total assets[20]

- Shareholder returns—the one-year buy and hold returns for the company's stock, adjusted by market portfolio returns[21]

- Total executive compensation—the sum of the total compensation provided to the top five executives of the firm (from the Execucomp database)

Table 5 displays overall descriptive statistics for the values defined and described above.

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[19] ROA, ROE, and profit margin are generally and broadly considered to be measures of operating and/or accounting performance and used pervasively throughout the literature regarding firm performance.
[20] Tobin's q is a commonly used measure of firm value that offers an alternative to market-to-book ratios. Because it removes liabilities from the total market capitalization, it is considered a more accurate reflection of shareholder value.
[21] The S&P 500 index is used as a proxy for the market portfolio.

Table 5. Descriptive Statistics for Annual Industry Financial Statistics

Industry	Average industrial financial statistics (in millions of constant 2011 dollars)					
	Assets	Market cap	Total sales	Total debt	Net income	Compensation
Air Transport	$121,915	$29,877	$87,003	$115,581	−$4,102	$133.60
Commercial Banks	$17,768,639	$2,900,831	$1,947,900	$16,115,077	$128,946	$5,731.28
Crop Production & Basic Processing	$19,110	$26,747	$16,687	$10,415	$583	$45.20
Defense Aerospace	$197,028	$189,794	$194,742	$146,674	$10,246	$254.16
Defense Electronics	$732,865	$193,798	$562,327	$671,686	−$2,950	$670.60
Education	$12,440	$28,458	$12,233	$5,308	$1,142	$104.87
Electric Utilities	$979,408	$396,382	$392,366	$739,083	$19,956	$720.42
Electronics Mfg. & Services	$769,656	$1,353,247	$640,814	$358,962	$23,346	$2,869.74
Environmental Services/Equipment	$93,772	$110,529	$50,865	$42,269	$6,180	$310.60
Food & Beverage	$72,689	$78,835	$197,173	$50,434	$2,174	$108.52
Food Processing & Sales	$279,295	$430,002	$293,676	$171,878	$21,723	$518.36
Forestry & Forest Products	$4,186	$5,782	$1,252	$2,362	$263	$8.32
General Contractors	$65,605	$42,038	$70,478	$41,191	$948	$352.35
Health Professionals	$102,364	$83,991	$120,731	$74,174	$4,229	$421.59
Livestock	$1,737	$2,292	$891	$707	−$24	$11.81
Lodging/Tourism	$74,181	$50,060	$38,018	$55,623	$1,039	$180.28
Mining	$76,806	$95,138	$38,942	$40,508	$2,223	$235.55
Misc. Manufacturing & Distributing	$1,115,470	$1,147,018	$1,269,129	$660,242	$74,881	$1,802.57
Misc. Communications/ Electronics	$82,206	$75,474	$33,917	$59,786	$2,815	$203.95
Oil & Gas	$248,217	$212,583	$88,433	$136,741	$12,859	$563.27
Pharmaceuticals/Health Products	$832,116	$1,542,987	$578,880	$465,754	$65,911	$1,734.43
Poultry & Eggs	$572	$708	$918	$243	$100	$3.82
Printing & Publishing	$246,280	$602,076	$140,565	$112,567	$18,948	$1,284.14
Railroads	$111,978	$67,662	$42,233	$73,380	$4,573	$141.74
Recreation/Live Entertainment	$15,060	$13,848	$8,483	$10,970	$151	$71.92
Retail Sales	$340,809	$418,607	$678,887	$206,634	$18,651	$557.50
Sea Transport	$34,925	$35,304	$13,978	$15,319	$2,222	$61.85
Special Trade Contractors	$4,983	$3,903	$8,152	$2,515	$104	$22.94
Steel Production	$113,913	$81,259	$101,206	$66,302	$3,976	$265.71
Telephone Utilities	$681,671	$474,423	$294,265	$430,123	$14,024	$681.67
Textiles	$9,579	$5,995	$9,932	$5,592	$20	$33.50
Trucking	$11,334	$12,620	$20,016	$6,458	$389	$49.31
TV/Movies/Music	$4,133	$4,969	$2,159	$1,847	−$47	$35.20
Waste Management	$42,568	$31,021	$22,321	$29,737	$1,420	$53.66

In this first section of empirical results, we only examine data at the aggregated industry level. We wish to examine whether the relative financial performance of US industries is significantly influenced by the relative levels of political activity by those industries. We first examine the correlation across the industries between lobbying expenditures and our various measures of firm performance. Table 6 displays a correlation matrix with the variables of interest.

Table 6. Correlation Matrix of Political Contributions and Industry Performance

	PAC	PAC + lobbying	Profit margin	ROE	ROA	Stock return	Market-to-book	Tobin's q	Compensation
Lobbying	0.7098***	0.9908***	−0.5122***	−0.0643	−0.1155	−0.0717	0.1728	0.1262	0.2522
PAC		0.7645***	−0.1736	−0.0975	−0.1356	−0.0961	0.1143	0.0625	0.3150*
PAC + lobbying			−0.4852	−0.0739	−0.1356	−0.0690	0.1651	0.1137	0.2371
Profit margin				0.0761	0.3106	0.0455	−0.7560***	−0.7237***	−0.0185
ROE					0.0902	−0.1230	−0.1066	−0.1049	0.1093
ROA						−0.0031	−0.3246*	−0.1749	−0.0276
Stock return							−0.0345	−0.1124	−0.0375
Market-to-book								0.9586***	−0.0054
Tobin's q									0.0027

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level.

The table reveals high correlation between lobbying expenditures and PAC expenditures, but little correlation between lobbying activities and our various measures of industry-wide performance. There is a significant negative correlation between profit margins and lobbying expenditures. However, further analysis (below) shows that the contemporaneous relationship is insignificant in a regression, after controlling for other factors.

To further explore the relationship, we next turn to multivariate analysis. First, we test whether there may be a causal relationship between lobbying expenditures and firm performance using both industry and year fixed effects in our regressions, controlling also for industry size and

leverage.[22] The results for lobbying, PAC contributions, and the sum of the two activities are presented in tables 7, 8, and 9 (respectively). In each of these tables, the dependent variable is measured as a percentage of total assets of the industry. Year dummies are included to control for any time-varying effects. Standard errors are clustered by industry. T-statistics are in parentheses.

Table 7. Industry Performance and Lobbying Expenditures, 2000–2011

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	0.045	0.709	0.080	**2.296*****	0.730
	(0.88)	(1.00)	(0.84)	**(6.09)**	(0.12)
Log of assets	**0.007****	0.107	0.009	0.023	0.201
	(1.96)	(1.29)	(1.11)	(0.60)	(0.30)
Leverage	**−0.145*****	−1.975	**−0.194*****	**−3.657*****	−0.855
	(−6.10)	(−1.39)	**(−3.99)**	**(−6.76)**	(−0.11)
Lobbying expenditures (% of assets)	−0.754	−2.972	−0.752	4.719	−20.277
	(−1.24)	(−1.24)	(−0.54)	(0.67)	(−0.23)
R-squared	0.2414	0.0423	0.1696	0.5486	0.0320
Number of observations	366	366	366	366	333

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

Table 8. Industry Performance and PAC Expenditures, 2000–2010

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	0.044	0.601	0.057	**2.244*****	1.513
	(0.89)	(0.92)	(0.74)	**(4.82)**	(0.23)
Log of assets	**0.009****	0.115	0.011	0.030	0.134
	(2.00)	(1.27)	(1.65)	(0.74)	(0.20)
Leverage	**−0.144*****	−2.982	**−0.197*****	**−3.705*****	−0.702
	(−6.22)	(−1.24)	**(−4.12)**	**(−6.77)**	(−0.09)
PAC contributions (% of assets)	−9.15	84.211	8.321	103.604	−928.922
	(−0.69)	(0.67)	(0.20)	(0.61)	(−0.37)
R-squared	0.2424	0.0424	0.1733	0.5552	0.0327
Number of observations	196	196	196	196	164

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

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[22] Results are qualitatively unchanged if regressions also control for risk by including the standard deviation of stock returns in the industry or standard deviation of accounting performance (ROA, ROE, and profit margin).

Table 9. Industry Performance and Lobbying and PAC Expenditures, 2000–2010

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	0.045	0.704	0.080	**2.293***	0.765
	(0.89)	(1.00)	(0.85)	**(6.08)**	(0.13)
Log of assets	**0.007****	0.107	0.009	0.025	0.193
	(1.98)	(1.29)	(1.14)	(0.64)	(0.29)
Leverage	**−0.147***	−2.976	**−0.197***	**−3.686***	−0.736
	(−6.19)	(−1.24)	**(−4.09)**	**(−6.78)**	(−0.10)
Lobbying and PAC contributions (% of assets)	−0.702	0.401	−0.634	4.991	−22.257
	(−1.22)	(0.11)	(−0.46)	(0.70)	(−0.25)
R-squared	0.2456	0.0423	0.1743	0.5546	0.0326
number of observations	196	196	196	196	164

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

Robustly across all three tables no statistically significant relationship is found between industry-level lobbying and/or PAC expenditures and measures of industry-wide firm financial performance. To ensure robustness we also examined subsets of the data, including just post-2008 data, measured lobbying in dollars rather than as a percentage of assets, and also tried the regressions both with and without the industry and time fixed effects. No matter which of these specifications we attempted, we found no statistically significant relationship between these two measures of political activity and industry-wide firm performance when we examined the issue across industries in a panel framework. In the interest of determining whether timing has a major impact on the relationship between "cronyism" and firm performance, we also ran tests that included interaction terms between political activity and our year dummy variables. Again, the results were qualitatively the same, and none of the interaction terms showed up as statistically significant.

Next, we turn to similar analysis using lagged values of political activity. It is reasonable to expect that the effect of political activity might materialize not in the year of the activity, but in the following year or years. Furthermore, improved performance in any given year should

result in increased resources. These resources could be put toward political activity and therefore could actually be indicating a reverse causality. Thus, we repeat our analysis from above using lagged values for our independent variables. Tables 10, 11, and 12 display the results.

Table 10. Industry Performance and Lagged Lobbying Expenditures, 2001–2011

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	−0.088	1.965	−0.195	**3.067***	2.715
	(−0.65)	(0.81)	(−0.68)	**(5.10)**	(0.50)
Log of assets$_{t-1}$	**0.009**	0.345	**0.014**	0.020	0.260
	(2.23)	(1.21)	**(2.09)**	(0.64)	(0.33)
Leverage$_{t-1}$	**−0.13***	−1.454	**−0.172***	**−3.587***	−2.190
	(−3.09)	(−1.30)	**(−2.53)**	**(−7.45)**	(−0.25)
Lobbying expenditures (% of assets)$_{t-1}$	**−3.118***	−2.921	−4.665	6.866	26.728
	(−1.83)	(−0.83)	(−1.67)	(0.46)	(0.54)
R-squared	0.2712	0.1371	0.2257	0.6657	0.02876
Number of observations	322	322	322	322	299

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

Table 11. Industry Performance and Lagged PAC Expenditures, 2002–2010

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	−0.064	1.424	−0.171	**3.344***	5.052
	(−0.47)	(0.64)	(−0.59)	**(4.92)**	(0.64)
Log of assets$_{t-1}$	0.007	0.382	0.012	0.030	0.151
	(1.65)	(1.20)	(1.62)	(0.08)	(0.19)
Leverage$_{t-1}$	**−0.121***	−10.450	**−0.161***	**−3.619***	−2.090
	(−3.26)	(−1.30)	**(−2.61)**	**(−7.54)**	(−0.95)
PAC contributions (% of assets)$_{t-1}$	**−64.473***	156.211	−83.642	−180.390	−347.471
	(−2.67)	(0.27)	(−1.58)	(−1.09)	(−0.09)
R-squared	0.2850	0.1387	0.2264	0.6687	0.02926
Number of observations	104	104	104	104	104

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

Table 12. Industry Performance and Lagged Lobbying and PAC Expenditures, 2002–2010

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	−0.087	1.933	−0.194	**3.077*****	2.807
	(−0.64)	(0.80)	(−0.68)	**(5.09)**	(0.51)
Log of assets$_{t-1}$	**0.009****	0.351	**0.014****	0.020	0.251
	(2.20)	(1.21)	**(2.09)**	(0.63)	(0.32)
Leverage$_{t-1}$	**−0.131*****	−10.533	**−0.176*****	**−3.600*****	−2.074
	(−3.10)	(−1.31)	**(−2.60)**	**(−7.41)**	(−0.24)
Lobbying and PAC contributions (% of assets)$_{t-1}$	**−3.020***	−24.332	−4.427	5.719	49.627
	(−1.93)	(−0.77)	(−1.67)	(0.43)	(0.47)
R-squared	0.2716	0.1392	0.2239	0.6663	0.02933
Number of observations	106	106	106	106	106

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

Overall and qualitatively, the results using lagged independent variables are similar to those using contemporaneous variables. The only minor difference is in the results for return on assets (ROA). In the lagged specifications there is a negative and weakly statistically significant relationship between political expenditures and ROA. While this result in isolation would be consistent with the findings in Faccio (2010) that firms with more political connections tend to underperform other firms using accounting measures of performance, the fact that none of the other measures show similar results leads to a likely conclusion that this one finding is spurious at best.[23] Again the main result is that no positive and significant correlation between industry-level firm performance measures and political activity exists, using multiple measures of both.

It is possible that our regressions, in only controlling directly for firm size and leverage, are omitting other important determinants of firm performance. As a robustness check on this, we repeated all the analysis performed above and included capital expenditures, market

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[23] It is important to note here that "political connections" are not exactly the same thing as our definition of "cronyism" in this paper. Nonetheless, they are essentially trying to get at the same concept, and so we include this in the discussion.

capitalization, market-to-book ratio, and standard deviation of industry performance (using ROA, ROE, and stock returns) as additional controls.[24] In all specifications, adding these additional control variables had no qualitative effect. Furthermore, none of the additional controls were statistically significant in the regressions.

If the overall profitability of firms is not enhanced by political connections, and firm shareholders do not gain, the question is to whom the benefits flow. One possibility is that firm executives are able to capture the benefit of these political connections through higher executive compensation. Aslan and Grinstein (2011) have developed a paper in which they investigate the relationship between political connectedness, executive pay levels, and pay-performance sensitivities. They find a positive relationship between campaign contributions and executive pay levels and a negative relationship between campaign contributions and pay-performance sensitivities. However, they also find that firm performance is positively affected by such political connectedness, such that shareholders gain as well as executives. Using data on the compensation of the top five executives, again averaged to the industry level from the Execucomp data, we now explore whether there is a relationship between executive compensation and political activity as defined above.

To study the potential impact of "cronyism" on executive compensation, we regress firm average executive compensation by industry on average industry lobbying expenditures, average industry PAC contributions, and the sum of the two activities. The results are shown in table 13. In stark contrast to our previous results on firm performance, we find a strong, robust, and statistically significant positive relationship between executive compensation and political

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[24] The measure of performance used to find standard deviation is consistent with the variable being measured. For instance, if the regression is using ROA as its dependent variable, then the standard deviation of the firm's ROA for the previous five years is used.

expenditures. This is true in every regression; for lobbying expenditures alone, for PAC

contributions alone, and also for the sum of the two activities. As with all our regressions above,

we include both time and industry fixed effects. The only difference is that these tables use

lobbying expenditures by firm in dollars rather than as a percentage of assets (since the

dependent variable is no longer a financial ratio but is measured in dollars as well). The results in

table 13 suggest that average executive compensation is higher in industries that undertake

higher levels of political activity, no matter how we measure it. Thus, while industry-wide firm

performance does not appear to be significantly influenced by industry-aggregate political action,

the compensation of firm executives does. This suggests that the benefits of political ties for

companies (at the industry level) are mainly captured by firm executives.

Table 13. Lobbying Expenditures, PAC Expenditures, and Executive Compensation

Dependent variable = Log of industry firm average compensation

Intercept	**6.870***** **(7.87)**	**7.001***** **(10.48)**	**6.699***** **(7.30)**
Log of assets	**0.146***** **(4.80)**	**0.158***** **(4.97)**	**0.151***** **(4.78)**
Leverage	−0.392 (−1.22)	−0.595 (−1.59)	−0.424 (−1.30)
Industry average lobbying	**0.084**** **(1.98)**		
Industry average PAC contributions		**0.089**** **(2.51)**	
Industry average lobbying and PAC contributions			**0.092**** **(2.08)**
R-squared	0.3210	0.3336	0.3236
Number of observations	366	196	196

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

One possible robustness check is that executive compensation may be at least partially

determined by prior firm performance. A seminal paper by Kevin Murphy (1985) was the first to

attempt to fully document such a relationship. Murphy finds that CEO compensation is indeed

sensitive to firm performance and at least partially determined by how well the firm performs. To control for this relationship, we perform two additional tests. First, we rerun the regressions above including lagged firm performance and contemporaneous firm performance as independent variables. Specifically, we include prior stock performance, ROA, ROE, and profit margin. The results are qualitatively unchanged. Lastly, we perform a two-stage regression to address the issue. First, executive compensation is regressed on firm size, leverage, prior-year stock return, and prior-year ROE. The residuals from that regression are stored and then regressed on political activity. Table 14 displays the results of the second-stage regression in this process and shows that the positive relationship between "cronyism" and executive compensation holds to these robustness checks that control for prior firm performance.

Table 14. Lobbying Expenditures, PAC Expenditures, and Executive Compensation

Dependent variable = Residuals from first-stage regression of compensation

Intercept	−0.820	−0.673	−0.853
	(−1.54)	(−1.58)	(−1.56)
Industry average lobbying	**0.062****		
	(2.30)		
Industry average PAC contributions		**0.064*****	
		(2.65)	
Industry average lobbying and PAC contributions			**0.063****
			(2.31)
R-squared	0.0849	0.0997	0.0992
Number of observations	366	196	196

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

VI. Firm-Level Analysis

In this section we move from data aggregated to the industry level down to firm-level data. While our prior results suggest that there are no significant distortions from political activity that make some industries more profitable overall than other industries, this may mask any distortions

from political activity that help some firms within a specific industry at the expense of other firms in the same industry. In this latter case, the industry's average performance would be unaffected, but within-industry individual firm performance would be affected. Firm-level lobbying data is obtained from opensecrets.org and merged by company name manually with financial data and executive-compensation data from the Compustat and ExecComp databases, respectively. Due to the time-intensive nature of the firm-level matching, we have used only lobbying data and not PAC data in our firm-level analysis. Because PAC expenditures are significantly smaller than lobbying expenditures, because they are highly correlated with lobbying levels as was seen in the correlation data, and because our prior results were identical when examining lobbying data alone, PAC data alone, or the combined value, we believe an examination of lobbying expenditures alone will allow us to uncover whether significant relationships exist.

The final sample consists of 129,430 firm-year observations over the period 1998–2010. Table 15 displays descriptive statistics regarding the firm-level data as well as the lobbying expenditures at the firm level.

Table 15. Firm-Level Summary Financial Statistics

	Mean	Standard deviation	Min	Max
Total assets ($ millions)	14,976	74,464	0	3,221,972
Market capitalization ($ millions)	7,377	24,056	0	1,819,782
Leverage ($ millions)	0.584	0.235	0.004	1
Capital expenditures ($ millions)	315.41	1,191	−330	33,143
ROA ($ millions)	0.02	0.67	−1.0	0.46
ROE ($ millions)	0.08	0.832	−7.9	1.56
Profit margin ($ millions)	−0.11	0.614	−7.4	1
Tobin's q ($ millions)	1.44	2.92	0	245.31
One-year stock return ($ millions)	0.16	0.19	−0.999	532
Total executive compensation ($ thousands)	2,474	5,581	0	600,347
Lobby expenditures ($ thousands)	139	873	0	45,460
Lobby expenditures (% of assets)	0.24	0.181	0	1.32

These are large firms, with average book value (total assets) of almost $15 billion and average market capitalization of approximately $7 billion. On average, debt makes up close to 60 percent of firms' capital structures. Total compensation among the top five executives averages almost $2.5 million. The average annual lobbying expenditures by firm are $139,100. On average, lobbying expenditures represent 0.24 percent of total assets for a firm.

First, we examine simple correlations to see if the measures are related. Table 16 displays the correlations between our variables of interest. The table shows positive and significant correlation between firm size and leverage and compensation. It also shows positive and significant correlation between lobbying activity and firm size, indicating that larger firms spend more money on lobbying than smaller firms. The table shows no correlation between either of our lobbying measures and any of our measures of firm performance.

Turning to regression analysis on our firm-level data, we now test whether there may be a significant relationship between lobbying expenditures and firm performance using both industry and year fixed effects in our regressions, controlling also for firm size, leverage, market-to-book, and capital expenditures. Table 17 displays the results.

As with our results at the industry level, we find no evidence using firm-level data that firm financial performance is enhanced by political connections as measured by firm lobbying activity. The only significant result at all is a slightly significant negative relationship between stock returns and lobbying expenditures as a percentage of total assets. However, even that result, while weakly statistically significant, does not signify an economically meaningful result because the impact is essentially zero. There is clearly no evidence of a significant positive relationship between these measures of firm performance and lobbying activity at the firm level.

Table 16. Firm-Level Correlation Matrix

	Lobbying ($)	Lobbying (%)	Total assets	Profit margin	ROE	ROA	Stock return	Leverage	Tobin's q	Compensation
Lobbying ($)	1.0000	0.1908***	0.1645***	0.0010	0.0012	0.0084	-0.0012	0.0146***	-0.0014	0.0891***
Lobbying (%)	0.1908***	1.0000	0.0139***	0.0007	-0.0021	-0.0003	-0.0009	0.0096***	-0.0002	0.0047*
Total assets	0.1645***	0.1908***	1.0000	-0.0031	0.0043	0.0005	-0.0013	0.0555***	-0.0561***	0.1807***
Profit margin	0.0010	0.0007	-0.0031	1.0000	0.0013	0.1814***	0.0021	-0.0302***	-0.0283***	0.0065**
ROE	0.0012	-0.0021	0.0043	0.0013	1.0000	0.0394**	0.0049*	0.0016	-0.0002	0.0001
ROA	0.0084	-0.0003	0.0005	0.3106	0.0394***	1.0000	-0.0225*	-0.2265***	-0.0676***	0.0065**
Stock return	-0.0012	-0.0009	-0.0013	0.0021	0.0049*	-0.02258	1.0000	-0.0008	-0.0012	-0.0057*
Leverage	0.0146***	0.0096***	0.0555***	-0.0302***	0.0016	-0.2265***	-0.0008	1.0000	0.0937***	-0.0122**
Tobin's q	-0.0014	-0.0002	-0.0561***	-0.0283***	-0.0002	-0.0676***	-0.0012	0.0937***	1.0000	0.0401***
Compensation	0.0891***	0.0047*	0.1807***	0.0065**	0.0001	0.0065**	-0.0057*	-0.0122**	0.0401***	1.0000

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level.

Table 17. Firm Performance and Lobbying Expenditures

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	**−4.81****	−0.315	**−2.63*****	**4.63***	**4.53*****
	(2.36)	(−0.39)	**(−7.19)**	**(1.76)**	**(3.86)**
Log of assets	**1.12****	0.033	**4.24*****	**−8.94***	**−0.854*****
	(2.27)	(0.21)	**(5.64)**	**(−1.66)**	**(−3.20)**
Leverage	**−6.79****	−0.001	**−0.208*****	0.218	**3.99****
	(−2.22)	(1.29)	**(−11.98)**	(0.82)	**(2.00)**
Capital expenditures	**−1.03****	−0.042	**−1.50****	3.76	**0.316***
	(−2.03)	(−0.26)	**(−2.03)**	(1.54)	**(1.88)**
Market-to-book	**0.003***	0.000	−0.044		0.000
	(1.75)	(0.45)	(−0.70)		(0.15)
Lobbying expenditures (% of assets)	0.001	0.001	−0.001	−0.001	**−0.0001****
	(0.42)	(1.27)	(−1.31)	(−0.53)	**(−2.46)**
R-squared	0.5321	0.0000	0.0122	0.0015	0.0002
Number of observations	98,881	98,875	94,372	98,881	85,609

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

In the industry-level analysis we attempted to also run a specification using lagged lobbying expenditures, but found no meaningful changes to the results. In the firm-level data a similar result holds in that the results are unchanged using lagged lobbying expenditures. The results are shown in table 18.

As with our industry-level results, we find no evidence of substantial, significant influences of firm political activity on measures of firm financial performance. We now seek to determine whether there is evidence of a significant relationship between executive compensation and lobbying activity similar to what we found in our industry-level analysis. Again, an executive's compensation is included in the Execucomp data if he or she is one of the top five executives of the firm. Table 19 displays the results of regressing executive compensation on lobbying activity, controlling for firm size, leverage, performance (again using ROA as a proxy for firm performance), and industry and year fixed effects.

Table 18. Firm Performance and Lagged Lobbying Expenditures

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	**−6.44****	0.045	**−2.26*****	7.82	**3.37*****
	(−2.33)	(−0.05)	**(−6.43)**	(1.45)	**(3.48)**
Log of assets	**2.00****	−0.086	**4.67*****	−2.19	**−0.771*****
	(2.23)	(−0.78)	**(4.39)**	(−1.54)	**(−2.90)**
Leverage	**−6.72****	0.494	−6.01	9.54	**4.52****
	(−2.18)	(0.47)	(−1.44)	(1.43)	**(2.37)**
Capital expenditures	**−1.02****	0.0009	**−1.59****	5.65	**0.338****
	(−2.00)	(0.36)	**(−1.99)**	(1.39)	**(2.05)**
Market-to-book	**−0.003***	0.0002	−0.071		0.000
	(−1.75)	(0.09)	(−1.51)		(0.11)
Lagged lobbying expenditures (% of assets)	0.00004	−0.0001	−0.0003	−0.0004	**−0.0001****
	(0.10)	(−0.04)	(−0.92)	(−0.95)	**(−2.10)**
R-squared	0.5321	0.0000	0.0224	0.0008	0.0002
Number of observations	78,411	78,411	78,411	78,411	78,411

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

Table 19. Executive Compensation and Firm Lobbying Expenditures

Dependent variable = Log of total executive compensation

Intercept	**4.69*****	**4.70*****
	(9.24)	**(9.00)**
Log of assets	**0.286*****	**0.323*****
	(8.99)	**(9.95)**
Leverage	−0.411	−0.408
	(−2.36)	(−2.54)
ROA	0.426	0.439
	(2.23)	(2.26)
Lobbying expenditures ($)	**0.054****	
	(6.64)	
Lagged lobbying expenditures ($)		**0.049****
		(6.38)
R-squared	0.2652	0.2690
Number of observations	129,242	126,367

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

The results show a significant positive relationship between executive compensation and lobbying activity, controlling for other factors at the firm level. These results are consistent with our findings at the industry level. Our results robustly suggest that the benefits of political

connections and firm political activity accrue to the top executives within the firm, not the firm's shareholders. This result is robust at both the industry and firm levels.

In a final attempt to see whether we can find any cases in which firm-level performance measures, other than executive compensation, are significantly related to firm lobbying activity, we performed our analysis individually at the two-digit Standard Industrial Classification (SIC) code level for 65 separate industries. While there were some individual industries in which one of the measures was significant, they were few and far between, and in many cases the coefficient was negative rather than positive. With this many regressions, even if the data were randomly generated, one in one hundred of the correlations would be significant at the 1 percent level, simply due to the way statistical significance tests are formulated. The individual regressions fit to these general expectations, and in only one industry grouping was there evidence of more robust positive findings across several measures of firm performance—the banking and financial industries grouping. Given that these industries were the beneficiaries of the massive TARP and Federal Reserve programs, this is unsurprising. The results for these few banking and finance industries (SIC codes 60, 62, 63) pooled are shown in table 20.

The results in table 20 for the finance and banking industries show positive and significant correlations between firm lobbying activity and three measures of firm financial performance: ROA, ROE, and Tobin's q. These industries are notable because over $500 billion in government funding went directly to firms in these industries beginning in 2008, with these firms devoting over $450 million annually to lobbying expenditures, and hiring more than 2,500 registered federal lobbyists. However, even for these industries, the results for stock/shareholder returns are strikingly insignificant. Table 21 shows that when lobbying expenditures are lagged, for this financial and banking industry subsample, the results for Tobin's q are still significant

and positive, and while ROA, ROE, and profit margin have positive coefficients, they are statistically insignificant, although the results for ROA are very close to being significant at the 10 percent level.

Table 20. Firm Performance and Lobbying Expenditures in the Banking and Financial Industries

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	**0.282****	0.050	−0.263	**2.77*****	−0.121
	(2.58)	(0.17)	(−0.41)	**(7.35)**	(−1.67)
Log of assets	**0.034*****	−0.004	**0.164****	**−0.294*****	0.007
	(3.27)	(−1.11)	**(2.53)**	**(−6.49)**	(1.50)
Leverage	**−0.650*****	**0.066****	**−1.362****	−0.057	0.135
	(−3.16)	**(2.19)**	**(−2.79)**	(−0.85)	(0.97)
Capital expenditures	**−0.00003*****	−0.00004	**−0.0001***	**0.0004*****	0.00002
	(−3.60)	(−0.80)	**(−1.91)**	**(5.59)**	(0.31)
Market-to-book	**−0.030****	−0.023	−0.100		0.005
	(−2.99)	(−1.56)	(−1.39)		(1.46)
Lobbying expenditures (% of assets)	**0.001****	**0.0004*****	0.002	**0.0044*****	−0.002
	(2.06)	**(4.94)**	(0.61)	**(4.85)**	(−1.20)
R-squared	0.5408	0.0008	0.0092	0.1445	0.0177
Number of observations	12,822	12,793	12,793	12,793	12,418

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

With mostly positive and significant results for the finance and banking industries on the firm financial performance measures with firm political activity, particularly in the case of the contemporaneous relationship, obviously the next question is whether the positive and significant results for executive compensation that we found across all industries and firms still hold for this particular industry subset. Table 22 shows the results of the executive-compensation regressions.

Table 21. Firm Performance and Lagged Lobbying Expenditures in the Banking and Financial Industries

	ROA	ROE	Profit margin	Tobin's q	Stock returns
Intercept	0.0227	0.199	−0.309	**4.266***	−0.122
	(0.50)	(0.38)	(−0.83)	**(14.01)**	(−0.67)
Log of assets	0.0033	0.028	**0.023***	**−0.138***	0.007
	(1.09)	(1.32)	**(3.66)**	**(−7.51)**	(−0.51)
Leverage	**−0.0620***	−0.532	0.1223	**−3.100***	0.136
	(−3.05)	(−0.60)	(0.33)	**(−19.06)**	(0.98)
Capital expenditures	−0.00003	−0.00002	−0.0001	**0.0001***	0.00002
	(−.91)	(−1.14)	(−0.99)	**(4.29)**	(0.31)
Market-to-book	**0.0350**	0.0130	0.075		0.0049
	(2.16)	(0.10)	(1.52)		(1.40)
Lagged lobbying expenditures (% of assets)	0.00004	0.0001	0.0005	**0.002**	−0.000004
	(1.56)	(0.39)	(0.39)	**(2.61)**	(0.07)
R-squared	0.2320	0.0013	0.0266	0.4161	0.0004
Number of Observations	11,118	11,118	11,118	11,118	11,097

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

Table 22. Executive Compensation and Firm Lobbying Expenditures in the Banking & Finance Industries

Dependent variable = Log of total executive compensation

Intercept	**5.75***	**5.97***
	(14.06)	**(12.83)**
Log of assets	**0.297***	**0.287***
	(6.76)	**(7.00)**
Leverage	**−1.18**	**−0.974**
	(−2.49)	**(−2.29)**
ROA	**1.96**	**1.958**
	(2.06)	**(2.07)**
Lobbying expenditures ($)	**0.069**	
	(2.71)	
Lagged lobbying ($)		0.050
		(1.62)
R-squared	0.2610	0.2278
Number of observations	11,118	10,367

*** indicates significance at the 1% level, ** at the 5% level, * at the 10% level, t-statistics in parentheses, clustered standard errors.

In the case of the contemporaneous variables, the results hold—executive compensation remains positive and statistically significant, even for this subset of finance and banking

industries. When it is lagged, shown in the second column of table 22, the result is marginally

under the 10 percent significance level, but is positive and clearly consistent with all our

previous results. Thus, while there is some evidence that in the finance and banking industries

there are positive impacts on firm performance measures from recent crony behavior, the main

result that political connections are tied to executive compensation levels remains robust.

Thus, our main finding suggests that the top executives of firms are the ones who are able

to capture the benefits of firm political connections across firms in the United States. In only the

case of the banking and finance industries do we see any evidence that measures of firm financial

performance are positively influenced by political activities. Extreme examples of executives

benefitting while investors did not may be found in the highly popularized (in the media) cases

of Solyndra and Serious Materials, both mentioned earlier in this paper. In the case of Solyndra,

right after the company filed for bankruptcy, the FBI searched the homes of the company's CEO,

Brian Harrison, and the company's founder, Chris Groney. Those searches, and subsequent court

proceedings, uncovered that after receiving government funds, several top executives at the firm,

including the CFO and two vice-presidents, were given bonuses ranging from $44,000 to

$60,000 in both April and July (in addition to their base salaries, which ranged from $500,000 to

$1,000,000), just months before the company filed for bankruptcy.[25]

The benefits accruing personally to corporate executives from the favors obtained

through political connections of the firms they run may be far larger than the monetary bonuses

and other forms of financial compensation. For example, consider the highly popularized case of

Serious Materials, a window-manufacturing company that not only was the feature of speech

mentions and factory visits by the president and vice president but also received a $584,000

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[25] See Mick (2011) and FoxNews (2011).

stimulus tax credit that other window makers such as Andersen and Pella did not. The alleged cronyism in this case is that one of the firm executives, Robin Roy, is married to Cathy Zoi, who at the time was assistant secretary for the Energy Department's Office of Energy Efficiency and Renewable Energy, which was responsible for $16 billion in stimulus money.[26] While this one window company clearly received benefits that other manufacturers making identical windows did not, the outcome was not only financial success for the company and its executives. As a result of the growth enabled by these government favors, company founder Kevin Surace received the honor of "Entrepreneur of the Year" for 2009 from *Inc. Magazine,* with a front-page photo and significant personal exposure.

Whether the rewards are financial or personal, company executives appear to be the main beneficiaries of strong political connections between firms and the federal government. We find little evidence that these benefits flow to firm owners or shareholders, suggesting that the rewards are fully expropriated or captured by firm executives. In many ways, this result is similar to the transitional-gains-trap paradox first noted by Tullock (1975). Tullock notes that in the case of many government interventions, such as taxi-cab medallions or farm-acreage subsidies, the result is a one-time transitional gain, immediately captured, and then capitalized into the value of the asset in such a manner as to make the industry or firm's profitability unchanged. In other words, given that the business must purchase the medallion or land to receive the subsidy, and that the price of the asset rises, the net profitability is no better off after than before the intervention, with all benefits being secured through a one-time lump sum transfer to the current owners. If firm executives are able to capture the present discounted value of the political connections they bring to companies, the expected returns to shareholders would logically remain unchanged.

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[26] See Stossel (2010).

VII. Additional Tests for Robustness—Sample Selection

As indicated throughout the analysis above, many additional tests were run for robustness purposes with additional control variables. However, one additional issue remains. Sample selection could be playing a role in our results, given that a large number of firms do not make political expenditures at all. It may be the case that some firms, by nature, find it optimal to engage in political activity, while others do not. To control for this possibility, we use a two-stage approach following the Heckman correction applied in Cooper, Gulen, and Ovtchinnikov (2010). First, a probit regression is run on a dummy variable, which is equal to 1 if the firm has non-zero lobbying expenditures. The first-stage regression uses standard determinants of political activity, again following Cooper, Gulen, and Ovtchinnikov (2010).[27] From that regression, we find the inverse Mills ratio from Heckman (1979) and use that value as an additional explanatory model in the second-stage regression, which again tests firm performance as a function of the control variables used above and lobbying expenditures as our variable of interest. Our first-stage regressions are consistent with those of Cooper, Gulen, and Ovtchinnikov (2010), demonstrating a positive relationship between likelihood of political activity and firm size. Lobbying activity is more common when other firms in the industry are more active and when the industry is regulated. The overall results from our second-stage regressions remain unchanged in that the coefficients on our measures of lobbying expenditures remain insignificant.[28]

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[27] We use firm size, market capitalization as a percentage of industry market capitalization, leverage, a dummy for regulated industries, sales, and the number of politically active firms within the industry. These are all used by Cooper, Gulen, and Ovtchinnikov (2010), who also use the percentage of employees who are unionized, which is information we do not have.

[28] Due to space considerations, and because the results are substantively unchanged, these tables are not included. The tables are all available upon request.

VIII. Conclusion

Our results suggest that there is generally no relationship between industry-level or firm-level lobbying intensity and financial performance measures for companies. However, we do find robust evidence that industry-level and firm-level executive compensation is positively related to lobbying activity (and PAC expenditures). Those industries and firms with higher levels of political activity have higher levels of compensation provided to the top five executives of the firms. Our analysis at both the aggregated industry level and the firm level produced identical results. We also performed our analysis individually for each industry and found identical results with the exception of the banking and financial sectors, in which there were positive correlations with some measures of firm performance (ROA, ROE, and Tobin's q), but notably not shareholder/stock returns. These industries, the targets of billions of dollars in government funds, clearly are an exception to the more general findings.

In summary, our main finding suggests that the benefits of cronyism accrue mostly to firm executives. This would be consistent with the fact that some politically favored firms, such as Solyndra and Ener1, have gone bankrupt despite getting government favors, and would also give a clear incentive for firm executives to devote resources toward developing political ties and connections. If it is firm executives rather than firms that primarily receive the benefit of these political connections, political connections will have little effect on which firms survive and which firms do not. Ansolabehere, de Figueiredo, and Snyder (2003) argue that we do not see enough corporate political activity to support the idea that such activity benefits firms. Perhaps one reason that "cronyism" is not as high as they would expect is that the benefits are going to top executives, thus representing an additional agency cost.

Our results do seem to suggest that the relative allocation of the economy's resources through profit-and-loss signals of firms and industries is not significantly altered through relative political activities affecting relative rates of return. The industry- and firm-level distortions either do not exist or are simply not large enough to be significant in either magnitude or the number of industries affected. Despite its high level of media attention, crony capitalism does not appear to have widespread resource-allocation impacts across the economy. The distortion in economic activity across sectors is far more influenced, for example, by Federal Reserve interest rate policy than by government bailouts, contracts, loans, etc., given our findings. Cronyism, and political connections, do have significant impacts within the limited set of financial and banking industries specifically related to TARP and other banking interventions. In addition, our results are a cause for concern in that the benefits of cronyism clearly flow to top corporate executives at the expense of taxpayers.

Perhaps most interesting is the fact that TARP funds specifically came with government limits on and regulations regarding executive compensation within the banks and financial institutions who received the government funds. Rules or limits on executive compensation tied to the receipt of government grants, contracts, loans, credits, and subsidies may have interesting implications for firm behavior given our finding that firm executives are the winners from corporate political connections. The fact that the designers of the federal TARP program saw the need for rules and limits on executive compensation may be more understandable in light of the links between executive compensation and political favors that we find in our empirical investigation in this paper.

References

Acemoglu, D., S. Johnson, A. Kermani, J. Kwak, T. Mitton. 2013. "The Value of Connections in Turbulent Times: Evidence from the United States." Working paper.

Ansolabehere, Stephen, John M. de Figueiredo, and James M. Snyder. 2003. "Why Is There So Little Money in U.S. Politics?" *Journal of Economic Perspectives* 17(1): 105–30.

Ansolabehere, Stephen, and James M. Snyder Jr. 1999. "Money and Institutional Power." *Texas Law Review* 77: 1673–704.

Ansolabehere, Stephen, James M. Snyder Jr., and Michiko Ueda. 2004. "Did Firms Profit from Soft Money?" *Election Law Journal* 3: 193–98.

Aslan, Hadiye and Yaniv Grinstein. 2011. "Political Contributions and CEO Pay." Working paper.

Bauer, Anne. 2010. "ARRA Contracts and State Political Contributions: ARRA Contractor Giving and Getting." *National Institute on Money in State Politics* http://www.followthe money.org/press/ReportView.phtml?r=428&ext=3 [accessed May 24, 2012].

Baumol, William J. 1990. "Entrepreneurship: Productive, Unproductive and Destructive." *Journal of Political Economy* 98(5): 893–921.

Baumol, William J. 1993. *Entrepreneurship, Management, and the Structure of Payoffs*. Cambridge, MA: MIT Press.

Baumol, William J. 2002. *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*. Princeton: Princeton University Press.

Becker, Gary. 1983. "A Theory of Competition among Pressure Groups for Political Influence." *Quarterly Journal of Economics* 98(3): 371–400.

Boettke, Peter J. 2001. *Calculation and Coordination: Essays on Socialism and Transitional Political Economy*. New York: Routledge.

Boettke, Peter J., and Christopher J. Coyne. 2003. "Entrepreneurship and Development: Cause or Consequence?" *Advances in Austrian Economics* 6: 67–87.

Borisov, A., E. Goldman, and N. Gupta. 2013. "The Value of (Corrupt) Lobbying." Working paper.

Center for Responsive Politics. 2012. *Center for Responsive Politics* http://www.opensecrets.org/ [accessed May 24, 2012].

Chaney, P., M. Faccio, and D. Parsley. 2011. "The Quality of Accounting Information in Politically Connected Firms." *Journal of Accounting and Economics* 51: 58–76.

Chen, H., D. Parsley, and Y. Yang. 2013. "Corporate Lobbying and Firm Performance." Working paper.

Cho, David, Steven Mufson, and Tomoeh Murakami Tse. 2009. "In Shift, Wall Street Goes to Washington." *The Washington Post* http://www.washingtonpost.com/wp-dyn /content/article/2009/09/12/AR2009091202932.html [accessed May 24, 2012].

Clabaugh, Jeff. 2010. "D.C. Office Demand Highest in 10 Years." *Washington Business Journal* http://www.bizjournals.com/washington/news/2010/10/28/dc-office-demand-highest-in -10-years.html [accessed May 24, 2012].

Claessens, S., E. Feijen, and L. Laeven. 2008. "Political Connections and Preferential Access to Finance: The Role Of Campaign Contributions." *Journal of Financial Economics* 88: 554–80.

Coates, J. 2012. "Corporate Politics, Governance, and Value before and after Citizens United." *Journal of Empirical Legal Studies* 9: 657–96.

Cooper, Michael J., Huseyin Gulen, and Alexei V. Ovtchinnikov. 2010. "Corporate Political Contributions and Stock Returns." *The Journal of Finance* 65(2): 687–724.

Coyne, Christopher and Peter T. Leeson. 2004. "The Plight of Underdeveloped Countries." *Cato Journal* 24(3): 235–49.

Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2002. "The Regulation of Entry." *Quarterly Journal of Economics* 117(1): 1–37.

Dougherty, Michael Brendan. 2012. "President Obama Mentions an Energy Company in His Big Speech and It Goes Bankrupt Instantly." *Business Insider* http://articles.businessinsider .com/2012-01-26/politics/30665928_1_energy-department-solyndra-batteries [accessed May 24, 2012].

Duchin, R. and D. Sosyura. 2012. "The Politics of Government Investment." *Journal of Financial Economics* 106: 24–48.

Durden, Garey C., Jason F. Shorgen, and Jonathan I. Silberman. 1991. "The Effects of Interest Group Pressure on Coal Strip-Mining Legislation." *Social Science Quarterly* 72: 239–50.

Economist. 2011. "Ask What Your Country Can Do for You." *Economist* http://www.economist .com/node/21531014 [accessed May 24, 2012].

Ekelund, Robert B. and Robert D. Tollison. 2001. "The Interest-Group Theory of Government," Chapter 17 in William F. Shughart II and Laura Razzolini (Eds.), *The Elgar Companion to Public Choice*, 357–78. Cheltenham, UK: Edward Elgar.

Faccio, Mara. 2006. "Politically Connected Firms." *American Economic Review* 96: 369–86.

Faccio, Mara. 2010. "Differences Between Politically Connected and Non-Connected Firms: A Cross-Country Analysis." *Financial Management* 39(3): 905–27.

Faccio, Mara, Ronald W. Masulis, and John J. McConnell. 2006. "Political Connections and Corporate Bailouts." *Journal of Finance* 61: 2597–635.

Faccio, Mara, and David C. Parsley. 2009. "Sudden Deaths: Taking Stock of Political Connections." *Journal of Financial and Quantitative Analysis* 33: 683–718.

Fisman, Raymond. 2001. "Estimating the Value of Political Connections." *American Economic Review* 91: 1095–102.

Fisman, David, Ray Fisman, Julia Galef, and Rakesh Khurana. 2006. "Estimating the Value of Connections to Vice President Cheney." Working paper, Columbia University.

FoxNews. 2011. "Solyndra Execs Reaped Bonuses before Bankruptcy, Documents Show." FoxNews http://www.foxnews.com/politics/2011/11/04/solyndra-execs-reaped-bonuses -before-bankruptcy-documents-show/ [accessed December 15, 2012].

Frye, Timothy, and Andrei Shleifer. 1997. "The Invisible Hand and the Grabbing Hand." *American Economic Review* 87(2): 354–58.

Goldman, Eitan, Jörg Rocholl, and Jongil So. 2009. "Do Politically Connected Boards Affect Firm Value?" *Review of Financial Studies* 22: 2331–60.

Grier, Kevin B., and Michael C. Munger. 1991. "Committee Assignments, Constituent and Campaign Contributions." *Economic Inquiry* 29: 24–43.

Grier, Kevin B., Michael C. Munger, and Brian E. Roberts. 1994. "The Determinants of Political Activity, 1978–1986." *American Political Science Review* 88: 911–26.

Hadani, M. and D. Schuler. 2012. "In search of El Dorado: The Elusive Financial Returns on Corporate Political Investments." *Strategic Management Journal* 34: 163–81.

Heckman, J. 1979. "Sample Selection Bias as a Specification Error." *Econometrica* 47, 153–61.

Hill, M., G. Kelly, G. Lockhart, and R. Van Ness. 2013. "Determinants and Effects of Corporate Lobbying." *Financial Management* 42(4): 931–57.

Inc. 500. 2011. *Inc. Magazine* http://www.inc.com/inc5000/list/2011/ [accessed May 24, 2012].

Jayachandran, Seema. 2006. "The Jeffords Effect." *Journal of Law and Economics* 49: 397–425.

Johnson Controls. 2011. "President Obama Visits Johnson Controls: President Obama Praises Advanced Battery Center." *Johnson Controls* http://www.johnsoncontrols.com/publish/us /en/about/our_company/featured_stories/president_obama_visits.html [accessed May 24, 2012].

Joskow, P., N. Rose, and C. Wolfram. 1996. "Political Constraints on Executive Compensation: Evidence from the Electric Utility Industry." *RAND Journal of Economics* 27: 165–82.

Kiel, Paul. 2008. "Show Me the TARP Money." *Propublica* http://projects.propublica.org /bailout/list [accessed May 24, 2012].

Kim, J. 2008. "Corporate Lobbying Revisited." *Business and Politics* 10, Article 3.

Kostovetsky, L. 2011. "Political Capital and Moral Hazard." Working paper.

Kroszner, Randall S., and Thomas Stratmann. 1998. "Interest-Group Competition and the Organization of Congress: Theory and Evidence from Financial Services' Political Action Committees." *American Economic Review* 88: 1163–87.

Krueger, Anne O. 1974. "The Political Economy of the Rent Seeking Society." *American Economic Review* 64(June): 291–303.

Laband, David N., and John P. Sophocleus. 1988. "The Social Cost of Rent Seeking: First Estimates." *Public Choice* 58(September): 269–75.

Laffont, Jean-Jacques and Jean Tirole. 1991. "The Politics of Government Decision-Making: A Theory of Regulatory Capture." *Quarterly Journal of Economics* 106(4): 1089–127.

Langbein, Laura I., and Mark Lotwis. 1990. "The Political Efficacy of Lobbying and Money: Gun Control in the U.S. House, 1986." *Legislative Studies Quarterly* 15: 413–40.

Leonnig, Carol D., and Joe Stephens. 2011. "Federal Funds Flow to Clean-Energy Firms with Obama Administration Ties." *Washington Post* http://www.washingtonpost.com/politics /venture-capitalists-play-key-role-in-obamas-energy-department/2011/12/30/gIQA05ra ER_story.html [accessed May 24, 2012].

Lewis, Christina S.N. 2010. "Rents Signal Rise of D.C., Fall of N.Y." *Wall Street Journal* http://online.wsj.com/article/SB126291211587420679.html [accessed May 24, 2012].

McChesney, Fred S. 1987. "Rent Extraction and Rent Creation in the Economic Theory of Regulation." *Journal of Legal Studies* 16(1): 101–18.

Mick, Jason. 2011. "Solyndra CEO Resigns, Clip of Owner Bragging about Gov't Handouts Surfaces." *DailyTech* http://www.dailytech.com/Solyndra+CEO+Resigns+Clip+of+ Owner+Bragging+About+Govt+Handouts+Surfaces/article23011.htm [accessed December 15, 2012].

Mixon, Franklin G. Jr., David N. Laband, and Robert B. Ekelund Jr. 1994. "Rent Seeking and Hidden In-Kind Resource Distortion: Some Empirical Evidence." *Public Choice* 78(February): 171–85.

Murphy, Kevin J. 1985. "Corporate Performance and Managerial Remuneration: An Empirical Analysis." *Journal of Accounting and Economics* 7(1–3): 11–42.

Murphy, Kevin M., Andrei Shleifer, and Robert W. Vishny. 1991. "The Allocation of Talent: Implications for Growth." *Quarterly Journal of Economics* 106(2): 503–30.

Ovtchinnikov, Alexei V. and Eva Pantaleoni. Forthcoming. "Individual Political Contributions and Firm Performance." *Journal of Financial Economics*.

Plumer, Brad. 2011. "The Outsized Returns from Lobbying." *The Washington Post* http://www .washingtonpost.com/blogs/ezra-klein/post/the-outsized-returns-from-lobbying/2011/10 /10/gIQADSNEaL_blog.html [accessed May 24, 2012].

Posner, Richard A. 1975. "The Social Costs of Monopoly and Regulation." *Journal of Political Economy* 83(August): 807–27.

Querubin, P., and J. Snyder Jr.. 2011. "The Control of Politicians in Normal Times and Times of Crisis: Wealth Accumulation by U.S. Congressmen, 1850–1880." NBER Working Paper No. 17634.

Recovery.gov: Track the Money. 2012. http://www.recovery.gov/ [accessed May 24, 2012].

Roberts, Bryan E. 1990. "A Dead Senator Tells No Lies: Seniority and the Distribution of Federal Benefits." *American Journal of Political Science* 34: 31–58.

Romer, Thomas, and James M. Snyder Jr. 1994. "An Empirical Investigation of the Dynamics of PAC Contributions." *American Journal of Political Science* 38: 745–69.

Shleifer, Andrei, and Robert W. Vishny. 1998. *The Grabbing Hand: Government Pathologies and Their Cures*. Cambridge, MA: Harvard University Press.

Snyder, James M. Jr. 1990. "Campaign Contributions as Investments: The House of Representatives, 1980–1986." *Journal of Political Economy* 98: 1195–227.

Snyder, Jim and Christopher Martin. 2011. Obama Team Backed $535 Million Solyndra Aid as Auditor Warned on Finances. *Bloomberg* http://www.bloomberg.com/news/2011-09-12 /obama-team-backed-535-million-solyndra-aid-as-auditor-warned-on-finances.html [accessed May 24, 2012].

Sobel, Russell S. 2008. "Testing Baumol: Institutional Quality and the Productivity of Entrepreneurship." *Journal of Business Venturing* 23(6 / November): 641–55.

Sobel, Russell S. and Thomas A. Garrett. 2002. "On the Measurement of Rent Seeking and its Social Opportunity Cost." *Public Choice* 112(1/2): 115–36.

Stigler, George J. 1971. "The Theory of Economic Regulation." *Bell Journal of Economics and Management Science* 2(1): 3–21.

Stossel, John. 2010. "Big Government's Cronies: The Real Reason Politicians Like Complicated Tax and Regulatory Schemes." *Reason* http://reason.com/archives/2010/02/04 /big-governments-cronies [accessed May 24, 2012].

Stratmann, Thomas. 1991. "What Do Campaign Contributions Buy? Deciphering Causal Effects of Money and Votes." *Southern Economic Journal* 57: 606–64.

Stratmann, Thomas. 1995. "Campaign Contributions and Congressional Voting: Does the Timing of Contributions Matter?" *Review of Economics and Statistics* 77: 127–36.

Stratmann, Thomas. 1998. "The Market for Congressional Votes: Is Timing of Contributions Everything?" *Journal of Law and Economics* 41: 85–113.

Stratmann, Thomas. 2005. "Some Talk: Money on Politics. A (Partial) Review of the Literature." *Public Choice* 124: 135–56.

Tahoun, Ahmed. 2014. "The Role of Stock Ownership by US Members of Congress on the Market for Political Favors." *Journal of Financial Economics* 111(1): 86–110.

Thiessen, Marc A. 2011. "Crony Capitalism Exposed." *American Enterprise Institute* http://www.aei.org/article/crony-capitalism-exposed/ [accessed May 24, 2012].

Tollison, Robert D. 1982. "Rent Seeking: A Survey." *Kyklos* 35: 575–602.

Tullock, Gordon. 1967. "The Welfare Cost of Tariffs, Monopolies, and Theft." *Western Economic Journal* 5(3 / June): 224–32.

Tullock, Gordon. 1975. "The Transitional Gains Trap." *Bell Journal of Economics* 6 (Autumn): 671–78.

Tullock, Gordon. 1980. "Efficient Rent Seeking," in James M. Buchanan, Robert D. Tollison, and Gordon Tullock (Eds.), *Toward a Theory of the Rent Seeking Society*, 97–112. College Station: Texas A&M Press.

Tullock, Gordon. 1989. *The Economics of Special Privilege and Rent Seeking*. Boston: Kluwer Academic Publishers.

Tullock, Gordon. 1993. *Rent Seeking*. Hants, England: Edward Elgar Publishing Limited.

Werner, T. 2012. "Public Forces and Private Politics in American Big Business." Cambridge, UK: Cambridge University Press.

Yu, Frank and Xiaomun Yu. 2011. "Corporate Lobbying and Fraud Protection." *Journal of Financial and Quantitative Analysis* 46: 1865–91.