# Institutional Investors and Corporate Political Activism[*]

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## Abstract

The landmark decision by the U.S. Supreme Court on Citizens United v. Federal Election Commission asserts for the first time that corporations benefit from First Amendment protection regarding freedom of speech in the form of independent political expenditures, thus creating a new avenue for political activism. This paper studies how corporations adjusted their political activism in response to this ruling. The paper presents evidence consistent with the hypothesis that institutional investors, in particular public pension funds, have a preference for not using the new avenue for political activism, a preference not shared by other investors.

"Merchants and master manufacturers are, in this order, the two classes of people who commonly employ the largest capitals, and who by their wealth draw to themselves the greatest share of the public consideration. [...] As their thoughts, however, are commonly exercised rather about the interest of their own particular branch of business, than about that of the society, their judgment, even when given with the greatest candour (which it has not been upon every occasion), is much more to be depended upon with regard to the former of those two objects, than with regard to the latter. [...] The proposal of any new law or regulation of commerce which comes from this order, ought always to be listened to with great precaution, and ought never to be adopted till after having been long and carefully examined, not only with the most scrupulous, but with the most suspicious attention."

*Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, pp. 316-17.*

## I.    Introduction

Adam Smith (1776) postulates utmost care when dealing with political demands by capital-owners, as their self-interest may significantly deviate from public interest. Capital-owners today are not restricted to businesses such as merchants and master manufacturers. Rather, states have amassed significant amounts of capital and control of business through state pension funds. This raises the important question of whether the actions taken by states as capital-owners have to be considered with the same care as those taken by businesses.[1]

The U.S. Supreme Court's landmark decision on *Citizens United v. Federal Election Commission* in January 2010 provides a unique opportunity to investigate the important question of a potential agency conflict in U.S. public pension funds. The decision asserts for the first time that corporations benefit from First Amendment protection regarding freedom of speech in the form of independent political expenditures.[2] The ruling generated significant controversy and

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[1] While we focus on state pension funds, the question also refers to sovereign wealth funds (e.g., Dewenter, Han, and Malatesta, 2010; Kotter and Lel, 2011; Bortolotti, Fotak, and Megginson, 2015).

[2] Citizens United, Appellant v. Federal Election Commission, 558 U.S. (docket nos. 08-205) decided 1/21/2010. Werner (2011) provides an overview of the antecedents of *Citizens United* and of the ruling itself. In practice, the ruling lifts prior bans on corporations to use their treasuries to advocate in favor or against a political candidate on a federal election, so-called independent expenditures on express advocacy.

resulted in a seven-fold increase in independent expenditures to federal elections.[3] President

Barack Obama (2010) voiced the opinion of many regarding *Citizens United* in his State of the

Union Address: "*Last week, the Supreme Court reversed a century of law that I believe will open*

*the floodgates for special interests – including foreign corporations – to spend without limit in*

*our elections. Well I don't think American elections should be bankrolled by America's most*

*powerful interests ...*" The Council of Institutional Investors (CII) and the Center for Political

Accountability (CPA) urged S&P 500 companies in a letter to adopt rules to disclose all

corporate political contributions and called on boards to review and approve such contributions

(CPA-CII, 2010).[4]

*Citizens United* represents the most dramatic change in corporate campaign financing since

the Taft-Hartley Act of 1947 that prohibited corporations from making any expenditure in

connection to federal elections. It thus provides a unique experiment to study how corporations

with different ownership structures adjust their inputs to political activism. Corporations are not

new to political activism and have used political connections, lobbying, and contributions by

executives and Political Action Committees (PAC). We revisit and broaden Adam Smith's

concern by noting that public pension funds are agencies of state governments that could pursue

political agendas outside the scope of public corporations, see e.g. Romano (1993), Mitchell and

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[3] Expenditures increase in presidential cycles from $143 million in 2008 to over $1 billion in the 2012 election cycle, and in non-presidential cycles from $37 million in 2006 to $205 million in 2010 and $550 million in 2014. Outside spending through March 31st of the 2016 election year is already three times larger what outside spending was at the same time in the 2012 election year (Centre for Responsive Politics, 2016). Direct contributions to candidates or coordinated expenditures are still prohibited.

[4] The CII pressed on when Ann Yerger, Executive Director of the CII, testified before Congress on March 11, 2010, asking for legislation along the same lines (Yerger, 2010). Institutional Shareholder Services Inc., a leading proxy advisor firm, only changed their recommendation from vote CASE-BY-CASE to "generally vote FOR proposals requesting greater disclosure of a company's political contributions and trade association spending policies and activities" in their Dec/19/2011 Proxy voting Guideline Updates.

Hsin (1997).[5] This creates a potential conflict of interest between public pension funds and other shareholders (see e.g. Woidtke, 2002, and Coronado, Engen, and Knight, 2003) and raises the important question of whether the market response to *Citizens United* depends on having institutional investors who may be engaged in political activism themselves.

Using a sample of 1,722 firm-year observations, we find that the average three-day return on the announcement of *Citizens United* amounts to 0.92%. In the cross-section, firms with more political connections exhibit lower three-day abnormal stock returns than firms with less political connections. This negative effect is concentrated on firms with high institutional ownership, whereas we find a positive market reaction for the firms with no institutional ownership. A one-standard-deviation increase in the number of political connections leads to a 1.20% lower three-day abnormal return for firms with high institutional ownership than for firms with zero institutional ownership, a relative loss of $83 million in market capitalization. This result is consistent with a general inability of high institutional ownership firms with established political connections to adjust to the presence of a new input to political activism. In contrast, we do not find any significant stock market reaction for lobbying, PAC spending, or executive contributions. This could be because lobbying activities encompass the provision of issue-specific information (Bertrand, Bombardini, and Trebbi, 2014) and therefore may bring unique value to political activism;[6] PAC contributions come from employees (and shareholders) and are

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[5] State legislation usually sets the composition of the board of directors. For example, in the Board of Administrators of CalPERS (the California Public Employees' Retirement System), 8 out of 13 current board members are elected from or appointed by public agencies in California (source: https://www.calpers.ca.gov/page/about/board/board-members).

[6] The evidence finds that lobbying increases firm value through tax savings (Richter, Samphantharak, and Timmons, 2009, and Alexander, Mazza, and Scholz, 2009), access to subsidies during a financial crisis (Duchin and Sosyura, 2012, and Adelino and Dinc, 2014), lower likelihood of SEC enforcement actions and lower penalties (Correia, 2014), and better financial performance ex post (Chen, Parsley, and Yang, 2012).

thus not at the full discretion of management; executive contributions have low legal limits. In contrast, political connections, like independent political expenditures, are exclusively about political activism and are strictly under the control of the management, thus being a closer substitute.[7]

We further investigate the results above. We show that it is the institutional owners without business ties to the corporation that drive the negative market reaction, suggesting that an arm's length relationship may be more effective in imposing constraints on management. Most importantly for the purpose of our study, we divide institutions without business ties to the corporation into investment companies, public pension funds, and private pension funds. Consistent with the potential of an agency conflict for states as owners of companies, we find that our main results are concentrated on public pension funds.

To shed more light on this finding, we explore the fact that twenty-three states had bans on independent political expenditures by corporations on state elections prior to *Citizens United*, besides the ban on all states on independent political expenditures on federal elections. State bans had been ruled constitutional by the U.S. Supreme Court in 1990 in *Austin v. Michigan Chamber of Commerce*.[8] The decision in *Citizens United* overruled *Austin* and gives rise to a cross-sectional difference that allows the identification of the effect of *Citizens United* on corporate decisions based on company headquarter state. Corporations headquartered in ban states serve as the treatment group, while corporations in no-ban states form the control group (see also Spencer and Wood, 2014).

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[7] Corporations have historically hired executives and board members with current or past political connections (e.g., Faccio, 2006, Bunkanwanicha and Wiwattanakantang, 2009, and Goldman, Rocholl, and So, 2009, Schoenherr, 2015).
[8] Austin, Michigan Secretary of State, et al. v. Michigan Chamber of Commerce, 494 U.S. 652 (1990).

The main results are again about political connections. Firms in ban states, i.e. the treatment group, establish on average less state-level political connections after *Citizens United* than firms in no-ban states, i.e. the control group. This effect depends on the level of institutional ownership. *Citizens United* has a negative net impact on state-level political connections for low institutional-ownership firms, consistent with an ability to adjust to the presence of the new input. In contrast, high-institutional-ownership firms do not significantly change or even mildly increase state-level political connections after *Citizens United*. Most importantly for the focus of our study, we again divide domestic institutions into several groups and find that the results are again driven by public pension funds. This evidence suggests that public pension funds put constraints on firms to not use the new avenue of political activism created by *Citizens United*. State-level PAC contributions also appear to respond to *Citizens United*, though statistical significance exists only for firms in ban states with high institutional ownership. Consistent with the earlier results on lobbying expenses and executive contributions, we do not find any evidence of change in these inputs.

We provide several robustness tests. For example, one could argue that firms with high institutional ownership have connections of higher quality than firms with low institutional ownership and this is what causes the former to not substitute inputs. Using two proxies for the quality of connections from Goldman, Rocholl, and So (2009), we find that on average there is no difference between low institutional ownership and high institutional ownership firms regarding connection quality. Another concern could be other information events occurring on the day of the ruling. The main other such event is the announcement by President Obama of the Volcker rule. Our results are unchanged if we exclude financial firms.

Our paper is related to different strands of the literature. First, we consider a potential conflict of interest between public pension funds and other shareholders arising from political pressures on the former. Woidtke (2002) and Coronado, Engen and Knight (2003) find negative valuation effects of firms held by state pension funds. Hochberg and Rauh (2013) find that public pension funds exhibit substantial home-state bias in private equity holdings, but these investments have poorer performance relative to their own similar out-of-state investments and investments in their state by out-of-state investors. Bradley, Pantzalis, and Yuan (2016) document that the home-bias in local investments by public pension funds is specifically geared to politically-connected stocks. This literature notwithstanding, there is evidence that institutional investor activism increases firm value (Gillan and Starks, 2000, Brav, Jiang, Partnoy, and Thomas, 2008, and Klein and Zur, 2009) through a variety of channels, including through investment and growth prospects (Bushee, 1998), executive turnover and compensation (Hartzell and Starks, 2003), corporate governance (Aggarwal, Erel, Ferreira, and Matos, 2011, and Chung and Zhang, 2011) and the quality of management earnings forecast (Ajinkya, Bhojraj, and Sengupta, 2005).

Second, our paper is related to the work on the effects of *Citizens United*. Werner (2011) finds no evidence of market reaction to *Citizens United* for firms with lobbying activity, political action committee (PAC) contributions, and procurement contracts. Burns and Jindra (2014) and Skaife and Werner (2014) uncover a response by firms in regulated industries, which we control for with industry dummies in our regressions. In work contemporaneous to ours, Newton and Uysal (2013) also find a negative market reaction around the announcement of *Citizens United* for politically connected firms, but they do not identify the effect of institutional investors. Consistent with our results, Spencer and Wood (2014) find an increase in independent

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expenditures in state elections for states with prior bans on contributions. Like us, Coates (2012) finds increased PAC contributions, though our evidence suggests that the effect is concentrated on firms with high institutional ownership. Coates (2012) also finds increased lobbying after *Citizens United* and lower industry-adjusted Tobin's Q for politically active unregulated firms. Klump, Mialon, and Williams (2014) find evidence that *Citizens United* is associated with an increase in Republican election probabilities in state House races.

Finally, our paper contributes to the evidence on political connections by demonstrating that political connections and independent expenditures are substitute inputs in the production of political activism. There is a large literature documenting that political connections add value to the firm (see Goldman, Rocholl, and So, 2009, for evidence in the U.S., and Fisman, 2001, Faccio, 2006, Bunkanwanicha and Wiwattanakantang, 2009, and Stahl, 2015, for international evidence). The value from political connections comes from a variety of sources including the ability to access outside funding (Khwaja and Mian, 2005, and Leuz and Oberholzer-Gee, 2006), the likelihood of being bailed out (Faccio, Masulis, and McConnell, 2006), the subsidies gained in the event of financial crises (Johnson and Mitton, 2003, and Duchin and Sosyura, 2012, Acemoglu, Johnson, Kermani, Kwak, and Mitton, 2013) and in obtaining procurement contracts (Goldman, Rocholl, and So, 2013).

The rest of the paper is organized as follows. Section II develops the hypotheses, Section III presents the data, and Section IV gives our main results. Section V concludes.

## II.    Hypothesis Development

We assume that firms engage in political activism using a variety of inputs, including political connections, lobbying, PAC contributions, executive contributions and independent

political expenditures. *Citizens United* recognizes for the first time corporations' First Amendment rights regarding independent political expenditures from their corporate treasuries in support of candidates in state and federal elections, as long as uncoordinated with the political campaigns of the specific candidates being financed. It overturns state bans deemed constitutional in *Austin v. Michigan Chamber of Commerce*. *Citizens United* and creates a new input for political activism.

Microeconomic theory suggests that the decrease in the relative price of independent expenditures from infinity (because they were illegal) to some finite amount gives rise to substitution and income effects. For the substitution effect, all else equal, firms substitute away from political connections and other inputs into independent expenditures producing the same amount of political activism with less spending. For the income effect, they can now afford more of all inputs achieving a higher level of political activism. Assuming that political activism is value increasing, the firm can now produce the same amount at lower cost, thus increasing firm value.[9] Further, keeping spending constant (and hence focusing on the substitution effect for now), increased independent political expenditures must be associated with a decrease in the use of other inputs. Our first hypothesis thus resembles the argument by Issacharoff and Karlan (1999) that campaign finance can be viewed as a hydraulic system where money, like water, must go somewhere. "Money, like water, will seek its own level. The price of apparent containment may be uncontrolled flood damage elsewhere" (p. 1713). The possibility to

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[9] While the existing literature seems to suggest that political activism is in general value increasing, the hypotheses and results in this paper could in principle be consistent with an agency view of political activism: Given that *Citizens United* allows firms to produce the same level of political activism in a more cost-efficient manner, firm value is relatively higher after *Citizens United* even if political activism is value decreasing.

reallocate resources that results from *Citizens United* is therefore value increasing for politically active firms. Our first hypothesis is that:

**Hypothesis 1**: *Firms with more political activism have higher announcement returns following Citizens United.*

Substitutability requires that the inputs share similar characteristics with independent political expenditures, namely that they are under the full control of management, that they can target specific politicians, and that they may not have to be disclosed.[10] Political connections, lobbying, PAC and executive contributions are all under the control of management, though the size of PAC contributions is not entirely at the discretion of managers and the legal maximum for executive contributions is very low. All can be used to target specific politicians, though lobbying may have a component of complement to the input of political activism because of its dual role as a mechanism to provide issue-specific information (Bertrand, Bombardini, and Trebbi, 2014). Finally, while political connections do not have to be disclosed, lobbying, and PAC and executive contributions have clear disclosure rules, which may make them less substitutable. Overall, political connections appear to be the closer substitute to independent expenditures.

However, firms may be subject to constraints on the use of certain forms of political activism. In particular, we expect firms with institutional shareowners, especially public pension funds, to give up on the added input flexibility that comes with *Citizens United*. The origin of

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[10] Whether these expenditures are disclosed depends on who gets the money. They are eventually disclosed if made through a Super PAC because of Federal Election Comission regulations, but will not de disclosed if made through organizations formed under section 501(c)(4) of the U.S. tax code, reserved for "social welfare groups", section 501(c)(5), reserved for "labor organizations", or section 501(c)(6), reserved for business leagues, chambers of commerce, the real estate boards, or boards of trade because the IRS does not require these organizations to disclose their sources of funding.

this preference may be premised on the advancement of governance usually associated with these investors (e.g. Gillan and Starks, 2000, Aggarwal, Erel, Ferreira, and Matos 2011, and Chung and Zhang, 2011). Alternatively, we argue that it may be premised on political pressure, as some institutional investors are state employee pension funds like CalPERS (the California Public Employees' Retirement System) and CalSTRS (the California State Teachers' Retirement System), both leading institutional investors and agencies of the State of California. Bill Lockyer, California Treasurer, wrote to CalPERS and CalSTRS urging them – as a consequence of *Citizens United* – to develop policies regarding disclosure of political contributions by portfolio companies (Lockyer, 2011). The search for an ultimate cause of a potential for political pressure from states is a challenging task and is not the goal of this paper. However, the premise of political pressure for not using independent expenditures is also observed by Westcott (2013) who documents the negative public reaction by the Council of Institutional Investors shortly after the Court ruling, and many shareholder proposals initiated by institutional investors on disclosure of political contributions especially since *Citizens United*. Along similar lines, Finseth (2013) suggests that employees that are required to contribute to such pension funds should be able to control on a pro rata basis the publicly traded shares of the companies that the funds are trying to influence. In related work, Mitchell and Hsin (1997), Woidtke (2002), Coronado, Engen, and Knight (2003), Hochberg and Rauh (2013), and Bradley, Pantzalis, and Yuan (2016) document biases in the portfolios of public pension funds that are consistent with the existence of political influence. In sum, firms with institutional shareowners, especially public pension funds, are expected to react most negatively to *Citizens United* (see also Taub, 2012).

If these constraints critically limit the ability of a firm to adjust, then firm value may decrease if the firm's other inputs to political activism lose some of the value associated with them, for

example, through the loss of real options associated with them, or if these firms are now less well equipped to compete with other firms for political favoritism.

**Hypothesis 2**: *Higher announcement returns are concentrated on firms with low institutional ownership. Firms with high institutional ownership, especially those with public pension fund ownership, experience relatively lower announcement returns.*

Hypotheses 1 and 2 present a view of the world in line with Adam Smith's view. There are however several other possible hypotheses to how firms should respond to *Citizens United*. First, it is possible that after *Citizens United* firms changed the total funds allocated to political activism. This would be the case if in the new equilibrium firms would have to spend more to achieve the same level of political activism. Second, it is possible that *Citizens United* did not change the funds allocated to political activism but created a need for more political disclosure, which penalizes firms that are engaged in political activism. Both of these hypotheses predict lower announcement returns to firms engaged in political activism, but do not predict a cross-sectional effect from institutional ownership on the announcement returns of politically active firms. The next hypotheses help us to further disentangle the effects of these alternative stories from those of our main hypothesis.

Prior to *Citizens United,* twenty-three states had bans on independent expenditures by corporations on state elections, based on *Austin v. Michigan Chamber of Commerce.*[11] These bans are overruled by *Citizens United*. We thus use firms in ban states as the treatment group and firms in no-ban states as the control group (Spencer and Wood, 2014). We expect that firms in ban states that could not use their own treasuries and had to rely on other forms of political

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[11] Austin, Michigan Secretary of State, et al. v. Michigan Chamber of Commerce, 494 U.S. 652 (1990).

activism before *Citizens United*, but are unconstrained to use the flexibility created with *Citizens United*, reduce other inputs to political activism after *Citizens United*. Firms that cannot take advantage of the added flexibility may do nothing or overcompensate by engaging more in the other forms of political activism.

**Hypothesis 3**: *If firms can adjust their inputs to political activism, then firms headquartered in states with corporate campaign contribution bans prior to Citizens United reduce other inputs to political activism after Citizens United relative to a control group, otherwise they do not change or even increase other inputs to political activism.*

*Citizens United* is expected to have a negative net impact on other types of political activism for low-institutional-ownership firms. These firms now substitute into independent political expenditures. In contrast, high-institutional-ownership firms, especially those with high public pension fund ownership, may increase their level of other inputs of political activism after *Citizens United*, given the outside pressure posed on them.

**Hypothesis 4**: *The reduction in other forms of political activism for firms headquartered in states with corporate campaign contribution bans prior to Citizens United is concentrated on firms with low or no institutional ownership, especially those with low public pension-fund ownership.*

## III. Data

Our sample is based on firms in ExecuComp and BoardEx. We use BoardEx to collect CVs of corporate board members and executives and produce a list of individuals who currently hold

or previously have held a position in a government organization in the U.S.[12] The number of political connections for each firm in any given year (*Connection*) is the number of executives and board members of the firm with such positions in that year. To merge BoardEx to ExecuComp, we require firms to have valid identifiers such as tickers and when tickers are missing or incorrect from BoardEx, we manually match firms using firm names. Most ExecuComp firms have at least one political connection in 2009. We further distinguish between contemporaneous and historical connections, and political connections with national-, state- and local-level government organizations. A political connection is defined as contemporaneous if the individual simultaneously holds both government and firm positions whereas it is an historical connection if the executive or board member used to hold a government position.

Our source for lobbying data is the Center for Responsive Politics that has been collecting data since 1998. Firms that spend more than $20,000 on direct lobbying activities are required to file with the Senate Office of Public Records and the Clerk of the House of Representatives after the Lobbying Disclosure Act of 1995.[13] We add up all past lobbying expenditures made before the end of 2009 for each firm to calculate cumulative prior lobbying expenditures (*Lobbying*).[14] We match these data to the ExecuComp sample by manually checking firm names. We code lobbying as zero for ExecuComp firms that never spend money on lobbying.

Individual political contributions data are collected from the Federal Election Commission (FEC) for 10 federal election cycles from 1991 to 2010 and matched to ExecuComp names. The

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[12] We drop observations if the start and end date for government or firm positions held by individuals are missing. We also delete observations if individuals leave the firm before joining the government. The position each individual holds in a firm varies each year. For individuals with no more than two observations, we create the earliest start/end year and the latest start/end year for each individual to verify the duration of individual's stay in the firm. For individuals that have three or more observations, we manually check to identify whether the individual holds a position each year from 1990 to 2013.

[13] Lobbying data are available on https://www.opensecrets.org/lobby/.

[14] We also use lobbying spending in 2009 as an alternative variable with similar results.

FEC gives information on donors' names, employers, addresses, and sometimes their occupation. We develop an algorithm to conduct the match and visually check the results. The match is based on (i) last name (exact match), (ii) first name (allowing for variations, e.g. Rob vs. Robert), (iii) either employer names (including employment history) or (3-digit) Zip codes.[15] We measure managers' political contributions (*Executive Contributions*) by adding all past contributions made before the end of 2009 by current managers independently of their previous occupation. This measure does not include contributions made by past managers.[16]

Political contributions of firms' Political Action Committees to state elections are obtained from the National Institute on Money in State Politics.[17] We add all past contributions donated before the end of 2009 for each firm to calculate cumulative contributions prior to 2010 (*PAC Contributions*). We match the contributions data to the ExecuComp sample by manually checking firm names. One third of firms have positive *PAC Contributions*.

We obtain stock returns from the Center for Research in Securities Prices (CRSP) files and require that ExecuComp firms have available stock return data around January 21st, 2010. We calculate three-day cumulative abnormal return (CAR) from day −1 to day 1 using the market model to measure expected returns and the CRSP value-weighted market index as the benchmark.[18] Finally, accounting variables are obtained from Compustat. We winsorise these control variables at the 1st and 99th percentiles. Our main sample consists of 1,722 firms.

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[15] In the end, 82% of matched results are based on employer names rather than zip codes. We also check the occupation of matched donors. The FEC records occupation since 2001 and the coverage has improved over time. In 2010, 80% of the matched donors have recorded occupation of 'executive', 'director', 'CEO', etc.

[16] We also sum up contributions made by both current and past managers provided the contributions are made during the tenure as a top executive of the firm. The results are similar.

[17] PAC contributions data are available on http://www.followthemoney.org/.

[18] Our results are similar when we use two-day CAR from day 0 to day 1. The estimation period ends 10 days before the announcement of *Citizens United* decision and we require the minimum (maximum) estimation length to be 60 (505) days.

We obtain institutional ownership data from the FactSet/LionShares database. The institutions covered in the database are qualified money managers such as pension funds, mutual funds, insurance companies, and bank trusts. FactSet/LionShares collects quarterly institutional holding data from public sources such as stock exchanges, national regulatory agencies, company proxies, and industry directories, as described by Ferreira and Matos (2008). Institutional ownership (*I.O_DOM*) is calculated as of the final quarter of 2009 and includes ordinary shares, preferred shares, American Depositary Receipts (ADRs), Global Depositary Receipts (GDRs), and dual listings. Of the 1,722 firms in our sample, 1,631 firms have positive institutional ownership. For firms whose shares are not held by any institutions in FactSet/LionShares, we set the institutional ownership variable to zero following Gompers and Metrick (2001).

Following Gompers, Ishii, and Metrick (2003) and Bebchuk, Cohen, and Ferrell (2009), we use both *G-Index* and *E-Index* to control for differences in corporate governance. Gompers, Ishii, and Metrick (2003) construct an equally-weighted index based on 24 governance provisions provided by the Investor Responsibility Research Center (IRRC). Bebchuk, Cohen, and Ferrell (2009) propose an entrenchment index based on six provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for charter amendments and mergers.[19] Among our 1,722 firms, 1,429 firms have available data on *G-Index* and *E-Index*.

We use two additional measures of corporate governance. We follow Larcker, Ormazabal, and Taylor (2011) and measure excess pay (*Excesspay*) using ExecuComp data as the difference

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[19] IRRC covers between 1400 and 1800 firms depending on the year. All S&P 500 firms are covered in IRRC and other firms not included in the S&P 500 but considered important are covered in IRRC as well.

between CEO compensation and the median compensation of a set of peer firms in the same industry and of similar size as that of the firm. Specifically, it is calculated as the natural logarithm of total compensation (variable TDC1 from ExecuComp) for the CEO minus the natural logarithm of the median total annual pay for all remaining firms on ExecuComp that are in the same Fama and French (1997) 12 industry group and size quintile of the firm for that year. This measure captures compensation earned by the CEO in excess of the market pay for CEOs at other firms with similar firm characteristics. A firm where the CEO is also chairman of the board may have fewer mechanisms for supervising management. Hence we also use a dummy variable to capture whether a CEO is the Chairman of the Board (*CEO Duality*). We obtain positions of executives from RiskMetrics and manually check whether the CEO held the position of chairman of the board as of December 31, 2009. Table 1 shows the summary statistics for each variable.

## IV. Empirical Results

### A. Political Activism and Firm Value

Table 2 presents a test of Hypothesis 1.[20] The table displays estimates of how existing political activism by firms is perceived by the stock market with the announcement of the ruling in *Citizens United v. FEC*. The dependent variable is the three-day cumulative abnormal return around January 21st, 2010, the day the ruling is announced. We add control variables that are suggested in previous literature. We include industry dummies based on two-digit SIC code and cluster standard errors by industry. In columns (1) through (4), we include *Connection*, *Lobbying*, *Executive Contributions* and *PAC Contributions* separately in the regression and in column (5) we include all these inputs.

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[20] Any result discussed in the main text that is not tabulated can be found in the paper's internet appendix.

We find that *Connection* is negatively associated with the three-day CAR. The coefficients on other political variables are insignificant. At first sight, these results are inconsistent with Hypothesis 1: they suggest that politically active firms were not perceived as being able to adjust to the new input to political activism. Table 3 repeats the regression in column (5) of Table 2 but adds *Excesspay*, *E-Index*, *G-Index* and *CEO Duality* respectively in columns (1) through (4) as corporate governance control variables. The corporate governance controls appear not to affect the market response. We also use alternative corporate governance variables, such as a founder-CEO dummy, the percentage of independent directors in the board of directors, *Excesspay_Cai* defined by Cai and Walkling (2011) and a co-opted board dummy.[21] The results are similar.

*B. Political Activism and Institutional Ownership*

In Table 4, we investigate whether institutional investors affect the stock market reaction for firms that engage in political activism (Hypothesis 2). We interact institutional ownership of domestic institutions, *I.O_DOM*, with *Connection*, *Lobbying*, *Executive Contributions* and *PAC Contributions* respectively in columns (1) through (4) of Table 4.

In column (1), the coefficient on the *I.O_DOM\*Connection* is significantly negative at the 1% level. For firms with institutional ownership in the 90th percentile, i.e., with a total percent ownership of 94%, and relative to firms with zero institutional ownership, a one standard deviation increase in the number of political connections, conditioning on having political connections prior to *Citizens United*, leads to a 1.20% (=0.004\*0.94\*3.20) lower three-day abnormal return (equivalent to a relative decrease in market value of $83 million for the average

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[21] Co-opted board dummy is a binary variable that equals one if the firm's percentage of directors appointed by the CEO is among the top quintile of the firm-year observations and zero otherwise.

firm). The announcement returns for firms with political connections but no institutional ownership increases with the level of political connections (columns (1) and (5) reveal an effect equivalent to a 0.64% increase in the daily return for a one standard deviation increase in the number of political connections).

We interpret these results as suggesting that political connections are a substitute to independent political expenditures for firms with flexibility to adjust other inputs to the new avenue of political activism, i.e. firms with low or no institutional ownership, consistent with Hypothesis 1. For firms with high institutional ownership, the results are consistent with the view that these firms do not adjust to the new input, consistent with Hypothesis 2. The loss of firm value may come from the loss of value produced by the other inputs, for example, via real options associated with them.

These results are robust to using bootstrapped $p$-values. Bootstrapped $p$-values account for the fact that the announcement could result in cross-sectional correlation of returns across stocks and thus bias the OLS standard errors even with the industry clustering (Sefcik and Thompson, 1986, and Bernard, 1987). We use a procedure similar to that of Lo (2003), Zhang (2007), and Cai and Walkling (2011). The procedure generates 10,000 repetitions where each repetition uses sample firm abnormal returns from 50 randomly-selected non-overlapping 3-day windows from non-event periods. This procedure maintains the cross-sectional correlation of firms' returns in the non-event period so that one can assess whether the event returns are significant independently of any correlation generated by the event.

The three-day CAR does not appear to be sensitive to any other form of political activism. As discussed above, there are reasons to believe that there is a lower degree of substitutability with these other inputs. In the rest of the analysis, we continue to tabulate the results for all forms of

political activism, but to conserve on space we will only comment on *Connection* since the effect of the other inputs lacks statistical significance.

In Table 5, we repeat the regression model in column (5) of Table 4 but add corporate governance control variables. In columns (1) and (3), we add *G-Index* and *E-Index* respectively, as controls. The coefficient associated with *I.O_DOM\*Connection* remains negative and the coefficient associated with *Connection* remains positive. In columns (2) and (4) of Table 5, we interact the inputs in the production of political activism with *G-Index* and *E-Index*, respectively.[22] If the effect of institutional ownership were premised on the advancement of governance in our specific exercise, then one would expect a similar effect from interacting other governance variables with the inputs to political activism. In contrast, we find that the estimated parameters associated with the interaction terms are statistically insignificant.

## C. Institutional Ownership by 'Special Interest' Investors: The Role of Business Relationships and Public Pension Funds

The evidence above is consistent with institutional investors pursuing agendas that are outside the scope of public corporations, for example regarding their political motivations. If this is the case, then our results are driven by institutional investors without business ties to corporations. This is because institutional investors without business ties may be less sensitive to pressures from corporate managers (Brickley, Lease, and Smith, 1988) and may exert more pressure themselves. Our definition of business ties between institutional investors and corporations follows that of Brickley, Lease, and Smith (1988) who classify institutional investors into "pressure sensitive" (i.e. with business ties to corporations), "pressure resistant"

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[22] The results are similar if we use alternative governance variables such as Excesspay or CEO duality.

(without business ties to corporations) or "pressure indeterminate".[23] They argue that mutual funds and pension funds, endowments and foundations are pressure resistant because they have little potential business ties with the firms in which they invest, which makes them more independent. In contrast, insurance companies, banks, and nonbank trusts are more likely to have current or prospective business relationships with corporations and are labeled as "pressure-sensitive" institutions. Finally, brokerage houses, investment counsel firms, miscellaneous and unidentified institutions are "pressure-indeterminate" institutions. The correlation between *IO_Pressure_Sensitive (IO_Pressure_Resistant)* with our institutional ownership variable *I.O_DOM* is 0.05 (0.78).

In Table 6, we interact *IO_Pressure_Sensitive, IO_Pressure_Resistant* and *IO_Pressure_Indeterminate* with *Connection* in column (1). We show that there is a negative association between *IO_Pressure_Resistant*Connection* with the three-day CAR while *IO_Pressure_Sensitive*Connection* and *IO_Pressure_Indeterminate*Connection* are statistically insignificant. The effect that political connections reduce value for firms with high institutional ownership is driven by "pressure-resistant" institutions. As with previous results, we find no effect from interacting the various *IO_Pressure* variables with other inputs to political activism. When we add the corporate governance control variables as in Table 5, we obtain similar results.

Separately, public pension funds might care about social or political issues in addition to financial performance. We thus expect our main results to be concentrated on public pension funds. We next divide *IO_Pressure_Resistant* into *IO_Investment_Companies* and

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[23] Other papers follow a similar definition of investor types and label them differently. For example, Almazan, Hartzell, and Starks (2005) divide institutions as "passive" (with business ties) or "active" (without business ties). Ferreira and Matos (2008) label institutions as independent (without business ties) or grey (with business ties) institutions.

*IO_Pension_Fund* in column (2). The coefficients on *IO_Investment_Companies*Connection*
and *IO_Pension_Fund*Connection* are both significantly negative. We further divide
*IO_Pension_Fund* into *IO_Public_Pension_Fund* and *IO_Private_Pension_Fund* in column (3).
We find that *IO_Public_Pension_Fund*Connection* is negatively associated with the three-day
CAR while *IO_Private_Pension_Fund*Connection* is statistically insignificant.[24] This suggests
that public pension fund managers might have their own political agendas which are in conflict
with those for other shareholders.[25]


*D. Changes of Political Connections Following the Citizens United Ruling*

We turn now to examining Hypothesis 3 and start by analyzing the effect of *Citizens United*
on political connections. We test whether the number of political connections changes after the
*Citizens United* ruling using a sample period from 2007 to 2012. The dependent variable is the
number of connections for any firm and year, but we also consider the breakdown of connections
into the potentially *overlapping* categories of contemporaneous, historical, national, state and
local connections. Because the ban is at the state level, we expect state connections to be most
affected. *Post Dummy* is a dummy variable that equals one from 2010 to 2012 and zero from
2007 to 2009. Each of these periods contains two years of a presidential election cycle and one
year of a mid-term election cycle. *Ban States* is a binary variable that equals one if the
headquarter of the firm locates in a state that had bans on independent expenditures on state

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[24] Results remain similar if we include IO interactions with other political variables (lobbying, executive
contributions, and PAC contributions).
[25] One may consider ownership by public pension funds also as a type of political connection. We find that firms
with larger public pension fund ownership have more political connections. This suggests that they are not
substitutes to each other.

elections and zero otherwise.[26] We use a Poisson regression model as the dependent variable is a count variable. We add firm characteristics that affect the establishment of political connections and other inputs in the production of political activism as control variables. We include industry dummies based on Fama-French 12 industries and standard errors are clustered by firm.

Table 7 reports the results. In column (1), the coefficient on the interaction *Ban States*Post Dummy* is significantly negative at the 5% level. This suggests that firms in ban states have less political connections after the *Citizens United* ruling than firms in no-ban states. The expected number of political connection is 5.4% (=1−exp (−0.055)) lower after the *Citizens United* ruling for firms in ban states compared to those in no-ban states. This evidence is consistent with Hypothesis 3 that firms adjust by decreasing the number of political connections. Results are similar if we use OLS regression and also if we add corporate governance control variables such as *G-Index* and *E-Index*.

To test Hypothesis 4, we incorporate institutional ownership and examine whether the change in the number of political connections following *Citizens United* differs between firms with high and low institutional ownership. In Table 8, we interact *Ban States* with *Post Dummy* and *I.O_DOM*. *Ban States*Post Dummy*I.O_DOM* is positively associated with connections while *Ban States*Post Dummy* is negatively associated with connections, though these effects are only statistically significant for all connections, historical and state connections. In untabulated results we show that the effect on historical connections is driven by the state-level historical connections. This suggests that firms with low institutional ownership have fewer state-level political connections after *Citizens United* if their headquarters locate in ban states

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[26] Our data is collected from the National Conference of State Legislatures. There were 23 states that prohibited or restricted corporate spending on candidate elections at the time of the *Citizens United* ruling, which we define as *Ban States* (source: http://www.ncsl.org/research/elections-and-campaigns/citizens-united-and-the-states.aspx).

than those in no-ban states. For zero institutional ownership firms, the expected number of state political connection decreases 38.6% (=1−exp (−0.487)) more after the *Citizens United* ruling for firms in ban states compared to those in no-ban states. The results are economically significant as the reduction is 0.42 unit given that our mean state political connection is 1.1 units conditioning on having political connections prior to *Citizens United*. In contrast, for firms with institutional ownership in the 90th percentile, i.e., with a total percent ownership of 94%, the expected number of state political connection is 6.9% (=exp(0.589*0.94−0.487)−1) higher after the *Citizens United* ruling for firms in ban states compared to those in no-ban states. The expected state political connection slightly increases 0.08 units more for high institutional ownership firms in ban states given the mean state political connection is 1.1 units conditioning on having political connections. The evidence is consistent with Hypothesis 4 that the firms that adjust political connections the most are firms with no or low institutional ownership.

The diff-in-diff analysis of Tables 7 and 8 assumes that the growth in political connections before the treatment effect is the same for firms in ban states and firms in no-ban states. In the online appendix we report the results from comparing average growth rates of political connections across the two groups of firms and show that the differences of all connections, historical, and state connections are not statistically significant. Further, we check that no firm in ban states moves to a non-ban state during the period of analysis or vice-versa. Finally, we consider the possibility of confounding biases. Spencer and Wood (2014) argue that the level of political competition can create a confounding bias. In our exercise increased political competition may lead to higher independent expenditures and political connections. In the online appendix we tabulate results where the models in Tables 7 and 8 are extended to also control for

a *Political Competition Index.*[27] The results are qualitatively the same as those in the paper. We also look to see if there is any significant difference in political leaning in ban states versus no-ban states to account for the possibility that democratic-leaning states promote legal bans on spending, for example, and the firms headquartered in these states substitute less. Our data suggest that ban states are more likely to be republican leaning than non-ban states, but the difference is not statistically significant. Finally, ban and no-ban states could differ in their industries and this difference could condition the response of connections to *Citizens United*. However, we find no difference in industry composition across ban and no-ban states. Further, in untabulated results we control for corporate governance variables and the results are unchanged.

### E. Changes of Political Connections Following the Citizens United Ruling: Public VS Private Pension Fund

In this section, we examine whether our prior results are driven by public pension funds which might have a different political agenda with other shareholders. We repeat the analysis in Table 8 but divide *I.O_DOM* into several subgroups: *IO_Pressure_Sensitive*, *IO_Investment_Companies*, *IO_Public_Pension_Fund*, *IO_Private_Pension_Fund*, and *IO_Pressure_Indeterminate*. Results are reported in Table 9. *Ban States*Post Dummy*IO_Public_Pension_Fund* is positively associated with connections while *Ban States*Post Dummy* is negatively associated with connections, though these effects are only statistically significant for state connections. All other triple interactions are insignificant.

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[27] The political competition index for state *i* and year *j* is given by $PC_{ij} = -\left| \frac{LHD_{ij} + UHD_{ij}}{LHD_{ij} + UHD_{ij} + LHR_{ij} + UHR_{ij}} - 0.5 \right|$, where *LHD$_{ij}$ (LHR$_{ij}$)* and *UHD$_{ij}$ (UHR$_{ij}$)* represent the number of seats that Democrats (Republicans) hold, respectively, in the lower and upper chambers of the state legislature that was elected in year *j*. The range of the index is from −0.5 to 0.

In economic terms, for firms with zero public pension fund ownership, the expected number of state political connection is 26.1% (=1−exp (−0.303)) lower for firms in ban states than those in no-ban states after the *Citizens United* ruling. In contrast, for firms with public pension fund ownership in the 90th percentile, i.e., with a total percent ownership of 4.8%, the expected number of state political connections is 6.5% (=exp (7.622*0.048−0.303)−1) higher after the *Citizens United* ruling for firms in the ban states. This confirms our conjecture that public pension fund administrators might have their own political preference and they might put constraints on firms for using the new avenue of political activism created by the *Citizens United* ruling.

*F.  Changes to Lobbying, Executive Contributions and PAC Contributions*

In Table 10, we examine changes to lobbying expenditures, executive contributions and PAC contributions after *Citizens United*. Of these three variables only PAC contributions is a state-level variable. We therefore expect no significant change on lobbying expenditures and executive contributions from pre- to post-*Citizens United* from removing the ban on state contributions. As expected, Table 10 shows that the triple interactions and double interactions are insignificant for lobbying expenditures and executive contributions.

In the next-to-last column, we find that *Ban States*Post Dummy* is positively associated with *PAC Contributions* (see also Coates, 2012): firms in ban states have 15% more PAC contributions after *Citizens United* than firms in no-ban states, but this effect is not statistically significant. In the last column we show that the effect on PAC contributions comes from high institutional investor ownership firms. *Ban States*Post Dummy*I.O_DOM* is positively

associated with contributions from PACs. This suggests that high institutional ownership firms in ban states spend more on contributions from PACs after *Citizens United* just as they also increase the number of political connections. Firms in the 90th percentile of institutional ownership that are in ban states see their PAC contributions increase by 39% (=−0.659+1.117*0.94) more than those in no-ban states after *Citizens United*. Firms with no institutional owners in ban states decrease the level of PAC contributions after *Citizens United* consistent with Hypothesis four, but the effect is not statistically significant.

*G. Placebo Tests*

We conduct placebo tests to validate that our results are subject to the exogenous shock of the *Citizens United* ruling rather than other events. First, we use the three-day CAR from −1 to +1 when day 0 is two weeks before/after the date when the *Citizens United* decision is announced (January 21st, 2010). In untabulated results, *Connection*, *Lobbying, Executive Contributions, and PAC Contributions* are all statistically insignificant. We then interact *I.O_DOM* with *Connection* and find that all interaction terms are insignificant with or without corporate governance control variables.

Second, we eliminate the *Citizens United* effect and examine changes to inputs in the production of political activism where the pre-period is 2004-2006 and the post-period is 2007-2009. In untabulated results, the coefficient associated with *Ban States*Post Dummy*I.O_DOM* is insignificant in all specifications. This evidence supports our identification strategy and suggests that our previous results come from *Citizens United*.

*H. Robustness Tests and Alternative Hypotheses*

We conduct several robustness tests. First, we look for other confounding, contemporaneous information events. The same day that the Supreme Court ruling was announced, President Obama announces the Volcker rule that commercial banks should not be allowed to engage in proprietary trading. [28] Paul Volcker had "campaigned" for the rule during much of 2009, but the decision to adopt it may have still come as a surprise to some because of its controversy. While our tests include industry dummies to ensure the results are not driven by a particular industry, to further minimize this concern, we also drop financial firms (i.e. SIC codes between 6000 and 6999) from our sample. Our main results remain similar after excluding financial firms.

Second, we test the alternative hypothesis that high institutional ownership firms had higher valued connections than low institutional ownership firms. Accordingly, the value of connections and not any constraint on the ability to adjust inputs to political activism post-*Citizens United* would explain the results we get. Then *Citizens United* would result in higher returns for low-institutional ownership firms as they would benefit most from the new input to political activism. We examine this possibility by taking into account the quality of connections following Goldman, Rocholl and So (2009) who show that the connected director has a greater impact in early nominations, while this impact decreases as the director joins further companies. We find that the difference of the nomination order between these two types of firms is very small and insignificant. Likewise, high institutional ownership firms do not have more recent political connections than low institutional ownership firms. This is an important point to consider as more recent political connections could be considered as being more valuable than more historical ones. In sum, our results do not seem to be driven by a difference in the quality of

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[28] The full text of the speech is available at http://blogs.wsj.com/deals/2010/01/21/full-text-of-obamas-remarks-on-financial-reform/.

connections. The results are robust to identifying the firms with institutional ownership above the 70th percentile, as high institutional ownership firms.

Third, we add state-level political competition as a control variable using two measures suggested in previous literature: *Political Competition Index*, described above, and *Divided Government Dummy*. *Divided Government Dummy* equals one if the state government is divided (different parties control different branches of government) and zero if the state government is unified. We wish to control for the possibility that the marginal benefit of political connections depends on the state-level political system. For example, after the *Citizens United* ruling political connections become costlier for firms in states with more political competition between political parties. Consistent with this we find that *Political Competition Index\*Connection* is negatively associated with the three-day CAR, but the coefficient is insignificant. Other results remain qualitatively the same as before.

Fourth, we investigate whether top customers of the company affect the relation between political activism and firm value. We collect data from Compustat and create the variable *Government Dummy* that equals one if at least one top customer of the firm is government-related and zero otherwise. As political connections help obtain government procurement contracts (Goldman, Rocholl and So, 2013), we expect a weaker substitution effect if one of the top customers in a firm is government-related. Consistent with this we find that *Government Dummy\*Connection* is positively associated with the three-day CAR although the coefficient is insignificant. *Government Dummy* itself is insignificant as well and the relation between political activism and firm value still holds.

Fifth, we winsorise *Connection*, *Lobbying*, *Executive Contributions* and *PAC Contributions* and the results are similar to those reported above. We use various proxies to measure

institutional ownership. We use the sum of the holdings of *all* institutions divided by the firm's market capitalization, and the sum of ownership by the top five institutional investors in percentage of market capitalization. The results are very similar to what we reported previously. Because the level of institutional ownership is highly correlated with firm size, we include both *Size\*Connection* and *IO_DOM\*Connection*. The coefficients on both interaction terms are significantly negative in the announcement return regressions. This implies that *IO_DOM\*Connection* is robust to the inclusion of size interaction.

## I.   Other Relevant Dates in Citizens United

On June 29th, 2009, the Supreme Court decided that a rehearing was needed so the parties could address the question of whether a resolution of the case was tied to, among other things, the overruling of *Austin v. Michigan Chamber of Commerce*, which upheld a state law prohibiting an independent political expenditure by the nonprofit Michigan Chamber of Commerce. The rehearing happened on September 9th, 2009. Expanding the scope of the case and ordering new oral arguments by the Court is rare and may have provided a signal to expert observers that the likely outcome was a ruling in favor of *Citizens United*. We repeat the stock market announcement analysis for each of these dates. We find that neither *Connection* nor *Connection\*I.O_DOM* is statistically significant in either date. While there could be many reasons for these results, it is possible that a significant amount of uncertainty about the final ruling still remained that was only truly resolved on January 21st, 2010.

## V.  Conclusions

This paper studies how corporations adjust their political activism in response to the Supreme Court ruling on *Citizens United v. FEC* and the constraints imposed on firms by some investors, in particular public pension funds. We find that firms with high political connections and low or no institutional ownership experience a higher stock market return with the announcement of *Citizens United* than firms with high institutional ownership. We do not find any market reaction for firms with lobbying, PAC contributions, and executive contributions. Our results are consistent with actions taken by public pension funds who object to the use of independent expenditures. Firms with this type of ownership appear to lose value by choosing not to avail themselves of the added flexibility created by *Citizens United* for the production of political activism.

Our work focuses on the intensive margin of political activism. We ask how firms that are already engaged in political activism respond to the *Citizens United* ruling. There is an equally interesting question of whether an extensive margin of response can be observed. That is, are there firms that started doing political activism because of *Citizens United*? We leave this question for future research.

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# Table 1 Summary Statistics

This table shows the summary statistics for each variable. *Connection* is the number of political connections firms had with government organizations in 2009. *Connection_Conditional* is the number of political connections firms had with government organizations conditioning on firms having political connections in 2009. *State_Connection_Conditional* is the number of state-level political connections firms had with government organizations conditioning on firms having political connections in 2009. *Lobbying* is the natural log of the sum of all prior corporate lobbying expenditures till 2009. *Executive Contributions* is the natural log of the total amount of managerial contributions. It captures all past contributions made by current managers in 2009 and does not include contributions made by past managers. *PAC Contributions* is the natural log of the sum of all prior PAC contributions till 2009. *I.O DOM* is the institutional ownership of domestic institutions. *IO_Pressure_Sensitive* is the institutional ownership held by insurance companies, banks, and nonbank trusts. *IO_Pressure_Resistant* is the institutional ownership held by public pension funds, mutual funds, endowments, and foundations. *IO_Pressure_Indeterminate* is the institutional ownership held by brokerage houses, investment counsel firms, miscellaneous and unidentified institutions. We follow Gompers, Ishii, and Metrick (2003) and construct *G-Index* based on 24 governance provisions provided by Investor Responsibility Research Center (IRRC). *E-Index* is proposed by Bebchuk, Cohen, and Ferrell (2009) and based on six provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for charter amendments and mergers. We follow Larcker, Ormazabal, and Taylor (2011) and measure *Excesspay* as the difference between CEO compensation and the median compensation of a set of peer firms in the same industry and of similar size as that of the firm. *CEO Duality* is a binary variable that equals one if the CEO held the position of chairman of the board as of December 31, 2009 and zero otherwise. *CAR* is the three-day abnormal return from −1 to +1 where day 0 is January 21$^{st}$, 2010 when *Citizens United* ruling is announced. *Size* is the natural log of market value of equity (item 25*item 24). *BM* is the book value of equity (item 60) divided by market value of equity (item 25*item 24). *Past Return* is the past stock return for the previous twelve months. *ROA* is operating income (item 13) divided by book assets (item 6). *Debt* is Book value of debt (item 9+ item 34) divided by book assets (item 6). *Cash* is Cash holdings (item 1) over book assets (item 6).

| Variables | N | Mean | 10$^{th}$ Perc. | Median | 90$^{th}$ Perc. | Std. Dev |
|---|---|---|---|---|---|---|
| Connection | 1,722 | 2.27 | 0.00 | 1.00 | 6.00 | 3.06 |
| Connection_Conditional | 1,186 | 3.30 | 1.00 | 2.00 | 7.00 | 3.20 |
| State_Connection_Conditional | 1,186 | 1.10 | 0.00 | 1.00 | 3.00 | 1.33 |
| Lobbying | 1,722 | 5.85 | 0.00 | 0.00 | 15.95 | 7.16 |
| Executive Contributions | 1,722 | 8.63 | 0.00 | 9.66 | 12.01 | 3.60 |
| PAC Contributions | 1,722 | 3.04 | 0.00 | 0.00 | 11.54 | 4.95 |
| I.O DOM | 1,722 | 0.67 | 0.12 | 0.75 | 0.94 | 0.28 |
| IO_Pressure_Sensitive | 1,722 | 0.002 | 0.00 | 0.001 | 0.003 | 0.03 |
| IO_Pressure_Resistant | 1,722 | 0.26 | 0.04 | 0.28 | 0.40 | 0.12 |
| IO_Pressure_Indeterminate | 1,722 | 0.46 | 0.13 | 0.50 | 0.67 | 0.19 |
| G-Index | 1,429 | 7.42 | 6.00 | 7.00 | 9.00 | 1.51 |
| E-Index | 1,429 | 3.68 | 2.00 | 4.00 | 5.00 | 1.14 |
| Excesspay | 1,722 | -0.07 | -0.98 | 0.00 | 0.79 | 0.87 |
| CEO Duality | 1,636 | 0.51 | 0.00 | 1.00 | 1.00 | 0.50 |
| CAR | 1,722 | 0.01 | -0.03 | 0.00 | 0.06 | 0.05 |
| Size | 1,722 | 7.41 | 5.53 | 7.32 | 9.51 | 1.60 |
| BM | 1,722 | 0.64 | 0.18 | 0.55 | 1.18 | 0.53 |
| Past Return | 1,722 | 0.04 | -0.00 | 0.03 | 0.10 | 0.05 |
| ROA | 1,722 | 0.02 | -0.09 | 0.03 | 0.11 | 0.11 |
| Debt | 1,722 | 0.22 | 0.00 | 0.19 | 0.48 | 0.19 |
| Cash | 1,722 | 0.16 | 0.01 | 0.10 | 0.40 | 0.16 |

**Table 2: Political Activism and Firm Value**

This table shows results of the relation between political activism and firm value. The dependent variable is the three-day CAR (−1, +1) where day 0 is January 21st, 2010 when *Citizens United* ruling is announced. *I.O_DOM* is the institutional ownership of domestic institutions. *Connection* is the number of political connections firms had with government organizations in 2009. *Lobbying* is the natural log of the sum of all prior corporate lobbying expenditures till 2009. *Executive Contributions* is the natural log of the total amount of managerial contribution. It captures all past contributions made by current managers in 2009 and does not include contributions made by past managers. *PAC Contributions* is the natural log of the sum of all prior PAC contributions till 2009. The definitions of other financial control variables are listed in Table 1. We winsorise each control variable at the 1st and 99th percentiles, respectively. We include industry dummies based on two-digit SIC code and cluster standard errors by industry. ***, ** and *represent 1%, 5% and 10% significance level, respectively.

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| I.O_DOM | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 |
| | [1.23] | [1.18] | [1.20] | [1.18] | [1.26] |
| Connection | -0.001 | | | | -0.001 |
| | [2.67]*** | | | | [2.67]*** |
| Lobbying | | 0.000 | | | 0.000 |
| | | [0.08] | | | [0.25] |
| Executive Contributions | | | 0.000 | | 0.000 |
| | | | [0.59] | | [0.77] |
| PAC Contributions | | | | -0.000 | -0.000 |
| | | | | [0.17] | [0.01] |
| Constant | -0.012 | -0.008 | -0.009 | -0.009 | -0.013 |
| | [0.81] | [0.54] | [0.61] | [0.56] | [0.89] |
| Financial Controls | Yes | Yes | Yes | Yes | Yes |
| Industry Fixed Effect | Yes | Yes | Yes | Yes | Yes |
| Adjusted $R^2$ | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| N | 1,722 | 1,722 | 1,722 | 1,722 | 1,722 |

## Table 3: Political Activism and Firm Value with Controls for Corporate Governance

This table shows results of the relation between political activism and firm value, controlling for corporate governance variables. The dependent variable is the three-day CAR (−1, +1) where day 0 is January 21$^{st}$, 2010 when *Citizens United* ruling is announced. *I.O_DOM* is the institutional ownership of domestic institutions. *Connection* is the number of political connections firms had with government organizations in 2009. *Lobbying* is the natural log of the sum of all prior corporate lobbying expenditures till 2009. *Executive Contributions* is the natural log of the total amount of managerial contributions. It captures all past contributions made by current managers in 2009 and does not include contributions made by past managers. *PAC Contributions* is the natural log of the sum of all prior PAC contributions till 2009. We follow Larcker, Ormazabal, and Taylor (2011) and measure *Excesspay* as the difference between CEO compensation and the median compensation of a set of peer firms in the same industry and of similar size as that of the firm. *E-Index* is proposed by Bebchuk, Cohen, and Ferrell (2009) and based on six provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for charter amendments and mergers. We follow Gompers, Ishii, and Metrick (2003) and construct *G-Index* based on 24 governance provisions provided by Investor Responsibility Research Center (IRRC). *CEO Duality* is a binary variable that equals one if the CEO held the position of chairman of the board as of December 31, 2009 and zero otherwise. The definitions of other financial control variables are listed in Table 1. We winsorise each control variable at the 1$^{st}$ and 99$^{th}$ percentiles, respectively. We include industry dummies based on two-digit SIC code and cluster standard errors by industry. $^{***}$, $^{**}$ and $^{*}$ represent 1%, 5% and 10% significance level, respectively.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| I.O_DOM | 0.007 | 0.005 | 0.004 | -0.003 |
| | [1.39] | [1.04] | [0.97] | [0.59] |
| Connection | -0.001 | -0.001 | -0.001 | -0.001 |
| | [2.71]*** | [2.51]** | [2.43]** | [3.09]*** |
| Lobbying | 0.000 | 0.000 | 0.000 | -0.000 |
| | [0.27] | [0.35] | [0.34] | [0.09] |
| Executive Contributions | 0.000 | 0.000 | 0.000 | 0.000 |
| | [0.79] | [0.25] | [0.24] | [1.08] |
| PAC Contributions | -0.000 | -0.000 | -0.000 | -0.000 |
| | [0.00] | [0.55] | [0.56] | [0.45] |
| Excesspay | -0.002 | | | |
| | [1.18] | | | |
| E-Index | | 0.001 | | |
| | | [0.76] | | |
| G-Index | | | 0.001 | |
| | | | [1.31] | |
| CEO Duality | | | | -0.000 |
| | | | | [0.03] |
| Constant | -0.015 | -0.009 | -0.015 | 0.002 |
| | [0.96] | [0.62] | [0.90] | [0.22] |
| Financial Controls | Yes | Yes | Yes | Yes |
| Industry Fixed Effect | Yes | Yes | Yes | Yes |
| Adjusted $R^2$ | 0.21 | 0.24 | 0.24 | 0.23 |
| N | 1,722 | 1,429 | 1,429 | 1,636 |

## Table 4: Institutional Ownership, Political Activism and Firm Value

This table shows results of the effect of institutional ownership on the relation between political activism and firm value. The dependent variable is the three-day CAR (−1, +1) where day 0 is January 21st, 2010 when *Citizens United* ruling is announced. *I.O_DOM* is the institutional ownership of domestic institutions. *Connection* is the number of political connections firms had with government organizations in 2009. *Lobbying* is the natural log of the sum of all prior corporate lobbying expenditures till 2009. *Executive Contributions* is the natural log of the total amount of managerial contributions. It captures all past contributions made by current managers in 2009 and does not include contributions made by past managers. *PAC Contributions* is the natural log of the sum of all prior PAC contributions till 2009. The definitions of other financial control variables are listed in Table 1. We winsorise each control variable at the 1st and 99th percentiles, respectively. We include industry dummies based on two-digit SIC code and cluster standard errors by industry. ***, ** and *represent 1%, 5% and 10% significance level, respectively.

|  | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| *I.O_DOM* | 0.012 | 0.007 | 0.014 | 0.008 | 0.015 |
|  | [2.16]** | [1.13] | [1.47] | [1.48] | [1.54] |
| *Connection* | 0.002 | -0.001 | -0.001 | -0.001 | 0.002 |
|  | [1.91]* | [2.68]*** | [2.65]*** | [2.75]*** | [1.69]* |
| *Lobbying* | 0.000 | 0.000 | 0.000 | 0.000 | -0.000 |
|  | [0.37] | [0.41] | [0.31] | [0.28] | [0.28] |
| *Executive Contributions* | 0.000 | 0.000 | 0.001 | 0.000 | 0.001 |
|  | [0.83] | [0.78] | [1.15] | [0.76] | [0.67] |
| *PAC Contributions* | -0.000 | 0.000 | 0.000 | 0.001 | 0.000 |
|  | [0.02] | [0.00] | [0.05] | [1.03] | [0.56] |
| *I.O_DOM*Connection* | -0.004 |  |  |  | -0.004 |
|  | [2.78]*** |  |  |  | [2.49]** |
| *I.O_DOM*Lobbying* |  | -0.000 |  |  | 0.000 |
|  |  | [0.32] |  |  | [0.54] |
| *I.O_DOM*Executive Contributions* |  |  | -0.001 |  | -0.000 |
|  |  |  | [0.91] |  | [0.36] |
| *I.O_DOM*PAC Contributions* |  |  |  | -0.001 | -0.001 |
|  |  |  |  | [1.14] | [0.62] |
| *Constant* | -0.016 | -0.014 | -0.019 | -0.014 | -0.018 |
|  | [1.03] | [0.87] | [1.24] | [0.93] | [1.18] |
| *Financial Controls* | Yes | Yes | Yes | Yes | Yes |
| *Industry Fixed Effect* | Yes | Yes | Yes | Yes | Yes |
| *Adjusted R²* | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| *N* | 1,722 | 1,722 | 1,722 | 1,722 | 1,722 |

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**Table 5: Institutional Ownership, Political Activism and Firm Value with Governance Controls**

This table shows results of the effect of institutional ownership on the relation between political activism and firm value, controlling for corporate governance variables. The dependent variable is the three-day CAR (−1, +1) where day 0 is January 21st, 2010 when *Citizens United* ruling is announced. *I.O_DOM* is the institutional ownership of domestic institutions. *Connection* is the number of political connections firms had with government organizations in 2009. *Lobbying* is the natural log of the sum of all prior corporate lobbying expenditures till 2009. *Executive Contributions* is the natural log of the total amount of managerial contributions. It captures all past contributions made by current managers in 2009 and does not include contributions made by past managers. *PAC Contributions* is the natural log of the sum of all prior PAC contributions till 2009. We follow Gompers, Ishii, and Metrick (2003) and construct *G-Index* based on 24 governance provisions provided by Investor Responsibility Research Center (IRRC). *E-Index* is proposed by Bebchuk, Cohen, and Ferrell (2009) and based on six provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for charter amendments and mergers. The definitions of other financial control variables are listed in Table 1. We winsorise each control variable at the 1st and 99th percentiles, respectively. We include industry dummies based on two-digit SIC code and cluster standard errors by industry. ***, ** and *represent 1%, 5% and 10% significance level, respectively.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| I.O_DOM | 0.006 | 0.005 | 0.006 | 0.005 |
| | [0.45] | [1.05] | [0.48] | [1.06] |
| Connection | 0.002 | -0.003 | 0.002 | -0.003 |
| | [1.89]* | [1.77]* | [1.92]* | [1.92]* |
| Lobbying | -0.000 | 0.000 | -0.000 | -0.000 |
| | [0.79] | [0.13] | [0.80] | [0.03] |
| Executive Contributions | -0.000 | 0.000 | -0.000 | 0.002 |
| | [0.12] | [0.18] | [0.12] | [1.29] |
| PAC Contributions | -0.000 | -0.000 | -0.000 | 0.001 |
| | [0.66] | [1.22] | [0.63] | [0.67] |
| I.O_DOM*Connection | -0.005 | | -0.005 | |
| | [3.01]*** | | [3.06]*** | |
| I.O_DOM*Lobbying | 0.001 | | 0.001 | |
| | [1.10] | | [1.11] | |
| I.O_DOM*Executive Contributions | 0.000 | | 0.000 | |
| | [0.25] | | [0.27] | |
| I.O_DOM*PAC Contributions | -0.000 | | -0.000 | |
| | [0.03] | | [0.13] | |
| G-Index | 0.001 | 0.000 | | |
| | [1.28] | [0.50] | | |
| G-Index*Connection | | 0.000 | | |
| | | [1.43] | | |
| G-Index*Lobbying | | -0.000 | | |
| | | [0.31] | | |
| G-Index*Executive Contributions | | 0.000 | | |
| | | [0.02] | | |
| G-Index*PAC Contributions | | 0.000 | | |
| | | [1.19] | | |
| E-Index | | | 0.001 | 0.003 |
| | | | [0.78] | [1.44] |
| E-Index*Connection | | | | 0.001 |
| | | | | [1.47] |
| E-Index*Lobbying | | | | 0.000 |
| | | | | [0.23] |
| E-Index*Executive Contributions | | | | -0.000 |
| | | | | [1.28] |
| E-Index*PAC Contributions | | | | -0.000 |
| | | | | [0.85] |
| Constant | -0.014 | -0.011 | -0.008 | -0.019 |
| | [0.69] | [0.68] | [0.45] | [1.31] |
| Financial Controls | Yes | Yes | Yes | Yes |
| Industry Fixed Effect | Yes | Yes | Yes | Yes |
| Adjusted R[2] | 0.24 | 0.24 | 0.24 | 0.24 |
| N | 1,429 | 1,429 | 1,429 | 1,429 |

**Table 6: Institutional Ownership, Political Activism and Firm Value: Public VS Private Pension Funds**

This table disentangles public and private pension funds. The dependent variable is the three-day CAR (−1, +1) where day 0 is January 21st, 2010 when *Citizens United* ruling is announced. *IO_Pressure_Sensitive* is the institutional ownership held by insurance companies, banks, and nonbank trusts. *IO_Pressure_Resistant* is the institutional ownership held by pension funds, mutual funds, endowments, and foundations. *IO_Pressure_Indeterminate* is the institutional ownership held by brokerage houses, investment counsel firms, miscellaneous and unidentified institutions. *IO_Investment_Companies is* the institutional ownership held by mutual funds. *IO_Pension_Fund is* the institutional ownership held by pension funds. *IO_Public_Pension_Fund is* the institutional ownership held by public pension funds. *IO_Private_Pension_Fund is* the institutional ownership held by private pension funds. *Connection* is the number of political connections firms had with government organizations in 2009. *Lobbying* is the natural log of the sum of all prior corporate lobbying expenditures till 2009. *Executive Contributions* is the natural log of the total amount of managerial contributions. It captures all past contributions made by current managers in 2009 and does not include contributions made by past managers. *PAC Contributions* is the natural log of the sum of all prior PAC contributions till 2009. The definitions of other financial control variables are listed in Table 1. We winsorise each control variable at the 1st and 99th percentiles, respectively. We include industry dummies based on two-digit SIC code and cluster standard errors by industry.***, **and *represent 1%, 5% and 10% significance level, respectively.

| | (1) | (2) | (3) |
|---|---|---|---|
| IO_Pressure_Sensitive | -0.000 | -0.002 | 0.002 |
| | [0.00] | [0.02] | [0.02] |
| IO_Pressure_Resistant | 0.011 | | |
| | [0.83] | | |
| IO_Pressure_Indeterminate | 0.017 | 0.016 | 0.017 |
| | [1.73]* | [1.54] | [1.80]* |
| Connection | 0.003 | 0.003 | 0.004 |
| | [2.38]** | [2.52]** | [2.22]** |
| Lobbying | 0.000 | 0.000 | 0.000 |
| | [0.38] | [0.38] | [0.41] |
| Executive Contributions | 0.000 | 0.000 | 0.000 |
| | [0.81] | [0.77] | [0.81] |
| PAC Contributions | -0.000 | -0.000 | -0.000 |
| | [0.13] | [0.23] | [0.10] |
| IO_Pressure_Sensitive* Connection | -0.006 | -0.006 | -0.007 |
| | [0.18] | [0.17] | [0.21] |
| IO_Pressure_Resistant* Connection | -0.010 | | |
| | [2.39]** | | |
| IO_Pressure_Indeterminate* Connection | -0.002 | -0.002 | -0.002 |
| | [0.77] | [0.74] | [0.77] |
| IO_Investment_Companies | | 0.005 | 0.008 |
| | | [0.34] | [0.58] |
| IO_Pension_Fund | | 0.082 | |
| | | [1.07] | |
| IO_Investment_Companies* Connection | | -0.008 | -0.008 |
| | | [1.91]* | [1.94]* |
| IO_Pension_Fund*Connection | | -0.038 | |
| | | [2.15]** | |
| IO_Private_Pension_Fund | | | -0.366 |
| | | | [0.96] |
| IO_Public_Pension_Fund | | | 0.079 |
| | | | [0.65] |
| IO_Private_Pension_Fund* Connection | | | 0.196 |
| | | | [1.21] |
| IO_Public_Pension_Fund* Connection | | | -0.085 |
| | | | [2.00]** |
| Constant | -0.019 | -0.020 | -0.019 |
| | [1.27] | [1.30] | [1.24] |
| Financial Controls | Yes | Yes | Yes |
| Industry Fixed Effect | Yes | Yes | Yes |
| Adjusted R-squared | 0.21 | 0.21 | 0.21 |
| N | 1,722 | 1,722 | 1,722 |

**Table 7: Changes of Political Connections after the *Citizens United* Ruling**

This table shows results of changes of political connections from 2007 to 2012 based on Poisson regressions. The dependent variable in column (1) is the number of political connections firms had with all government organizations. In columns (2) and (3), the dependent variable is the number of contemporaneous and historical connections. From columns (4) to (6), the dependent variable is the number of connections established with government of national-, state- and local-level respectively. *Ban States* is a binary variable that equals one if the headquarter of the firm locates in the state that had bans on independent expenditures on state elections and zero otherwise. *Post Dummy* is a dummy variable that equals one from 2010 to 2012 and zero from 2007 to 2009. *I.O_DOM* is the institutional ownership of domestic institutions. It captures all past contributions made by current managers and does not include contributions made by past managers. *PAC Contributions* is the natural log of the amount of PAC contributions. *Lobbying* is the natural log of the amount of corporate lobbying expenditures. *Executive Contributions* is the natural log of the amount of managerial contributions. The definitions of other financial control variables are listed in the Appendix. We winsorise each control variable at the 1$^{st}$ and 99$^{th}$ percentiles, respectively. We include 11 industry dummy variables based on Fama-French 12 industries and cluster standard errors by firm. ***, ** and * represent 1%, 5% and 10% significance level, respectively.

| | ALL | Contemporary | Historical | National | State | Local |
|---|---|---|---|---|---|---|
| *Ban States* | -0.213 | -0.424 | -0.175 | -0.236 | -0.232 | 0.252 |
| | [4.25]*** | [4.65]*** | [3.30]*** | [4.05]*** | [3.09]*** | [1.42] |
| *Post Dummy* | 0.097 | 0.505 | -0.018 | 0.059 | 0.156 | 0.257 |
| | [5.14]*** | [12.02]*** | [0.91] | [2.56]** | [5.61]*** | [2.79]*** |
| *I.O_DOM* | -0.067 | -0.162 | -0.041 | 0.091 | -0.236 | -0.641 |
| | [0.62] | [1.09] | [0.35] | [0.72] | [1.67]* | [2.09]** |
| *Ban States*Post Dummy* | -0.055 | 0.112 | -0.077 | -0.058 | -0.057 | -0.108 |
| | [2.03]** | [1.54] | [2.78]*** | [1.76]* | [1.31] | [0.95] |
| *Lobbying* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | [1.33] | [1.17] | [1.38] | [1.13] | [1.82]* | [1.37] |
| *Executive Contributions* | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | [2.70]*** | [0.19] | [3.12]*** | [2.46]** | [2.41]** | [0.81] |
| *PAC Contributions* | 0.000 | 0.000 | 0.000 | -0.000 | 0.000 | 0.000 |
| | [0.31] | [0.73] | [0.16] | [0.62] | [1.37] | [2.41]** |
| *Constant* | -1.812 | -3.639 | -1.982 | -2.829 | -2.046 | -4.263 |
| | [11.14]*** | [14.02]*** | [11.47]*** | [13.65]*** | [9.78]*** | [8.40]*** |
| *Financial Controls* | Yes | Yes | Yes | Yes | Yes | Yes |
| *Industry Fixed Effects* | Yes | Yes | Yes | Yes | Yes | Yes |
| *N* | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |

# Table 8: Changes of Political Connections after the *Citizens United* Ruling: The Role of Institutional Ownership

This table shows results of the effect of institutional ownership on changes of political connections from 2007 to 2012 based on Poisson regressions. The dependent variable in column (1) is the number of political connections firms had with all government organizations. In columns (2) and (3), the dependent variable is the number of contemporaneous and historical connections. From columns (4) to (6), the dependent variable is the number of connections established with government of national-, state- and local-level respectively. *Ban States* is a binary variable that equals one if the headquarter of the firm locates in the state that had bans on independent expenditures on state elections and zero otherwise. *Post Dummy* is a dummy variable that equals one from 2010 onwards and zero from 2007 to 2009. *I.O_DOM* is the institutional ownership of domestic institutions. It captures all past contributions made by current managers and does not include contributions made by past managers. *PAC Contributions* is the natural log of the amount of PAC contributions. The definitions of other financial control variables are listed in the Appendix. *Executive Contributions* is the natural log of the amount of corporate lobbying expenditures. *Lobbying* is the natural log of the amount of contributions made by current managers and does not include contributions made by past managers. *PAC Contributions* is the natural log of the amount of PAC contributions. We winsorise each control variable at the $1^{st}$ and $99^{th}$ percentiles, respectively. We include 11 industry dummy variables based on Fama-French 12 industries and cluster standard errors by firm. ***, **, and * represent 1%, 5% and 10% significance level, respectively.

| | ALL | Contemporary | Historical | National | State | Local |
|---|---|---|---|---|---|---|
| Ban States | 0.062 | 0.094 | 0.057 | -0.018 | 0.064 | 0.770 |
| | [0.36] | [0.35] | [0.31] | [0.09] | [0.29] | [1.33] |
| Post Dummy | 0.146 | 0.545 | 0.036 | 0.079 | 0.189 | 0.698 |
| | [2.11]** | [3.52]*** | [0.53] | [0.92] | [2.08]** | [2.36]** |
| I.O_DOM | 0.119 | 0.099 | 0.126 | 0.199 | -0.013 | 0.024 |
| | [0.79] | [0.43] | [0.78] | [1.12] | [0.07] | [0.05] |
| Ban States*Post Dummy | -0.288 | -0.091 | -0.365 | -0.142 | -0.487 | -0.742 |
| | [2.26]** | [0.33] | [2.86]*** | [0.97] | [2.71]*** | [1.80]* |
| I.O_DOM*Post Dummy | -0.062 | -0.044 | -0.069 | -0.025 | -0.028 | -0.639 |
| | [0.67] | [0.21] | [0.75] | [0.22] | [0.22] | [1.62] |
| Ban States*I.O_DOM | -0.341 | -0.637 | -0.292 | -0.270 | -0.369 | -0.605 |
| | [1.53] | [1.78]* | [1.23] | [1.01] | [1.25] | [0.83] |
| Ban States*Post Dummy*I.O_DOM | 0.314 | 0.257 | 0.391 | 0.106 | 0.589 | 0.905 |
| | [1.89]* | [0.71] | [2.34]** | [0.56] | [2.43]** | [1.66]* |
| Lobbying | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | [1.78]* | [1.45] | [1.88]* | [1.62] | [2.19]** | [1.65]* |
| Executive Contributions | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | [2.13]** | [0.19] | [2.42]** | [2.26]** | [1.69]* | [0.21] |
| PAC Contributions | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | [1.10] | [1.98]** | [0.82] | [0.03] | [1.90]* | [2.88]*** |
| Constant | -1.748 | -3.724 | -1.878 | -2.753 | -1.883 | -4.481 |
| | [8.91]*** | [11.67]*** | [9.09]*** | [11.57]*** | [7.51]*** | [6.79]*** |
| Financial Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| N | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |

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**Table 9: Changes of Political Connections after the *Citizens United* Ruling: Public VS Private Pension Funds**

This table shows results of the effect of public and private pension funds on changes of political connections from 2007 to 2012 based on Poisson regressions. The dependent variable in column (1) is the number of political connections firms had with all government organizations. In columns (2) and (3), the dependent variable is the number of contemporaneous and historical connections. From columns (4) to (6), the dependent variable is the number of connections established with government of national-, state- and local-level respectively. *Ban States* is a binary variable that equals one if the headquarter of the firm locates in the state that had bans on independent expenditures on state elections and zero otherwise. *Post Dummy* is a dummy variable that equals one from 2010 onwards and zero from 2007 to 2009. *IO_Pressure_Sensitive* is the institutional ownership held by insurance companies, banks, and nonbank trusts. *IO_Public_Pension_Fund* is the institutional ownership held by public pension funds. *IO_Investment_Companies* is the institutional ownership held by mutual funds. *IO_Private_Pension_Fund* is the institutional ownership held by private pension funds. *IO_Pressure_Indeterminate* is the institutional ownership held by brokerage houses, investment counsel firms, miscellaneous and unidentified institutions. *Lobbying* is the natural log of the amount of corporate lobbying expenditures. *Executive Contributions* is the natural log of the amount of managerial contributions. It captures all past contributions made by current managers and does not include contributions made by past managers. *PAC Contributions* is the natural log of the amount of PAC contributions. The definitions of other financial control variables are listed in the Appendix. We winsorise each control variable at the $1^{st}$ and $99^{th}$ percentiles, respectively. We include 11 industry dummy variables based on Fama-French 12 industries and cluster standard errors by firm. ***, **, and * represent 1%, 5% and 10% significance level, respectively.

| | ALL | Contemporary | Historical | National | State | Local |
|---|---|---|---|---|---|---|
| Ban States | 0.015 [0.09] | 0.260 [0.92] | -0.031 [0.17] | -0.133 [0.65] | 0.160 [0.75] | 0.660 [1.24] |
| Post Dummy | 0.109 [1.49] | 0.474 [0.92] | 0.012 [0.16] | 0.008 [0.09] | 0.167 [0.75] | 0.777 [0.93] |
| IO_Pressure_Sensitive | -0.794 [2.84]*** | 0.152 [0.44] | -1.143 [3.57]*** | -0.215 [0.92] | -2.972 [1.49] | -39.989 [2.63]*** |
| IO_Investment_Companies | 0.015 [0.05] | -0.578 [1.19] | 0.146 [0.43] | -0.004 [0.01] | -0.052 [0.12] | 0.666 [0.58] |
| IO_Public_Pension_Fund | 0.119 [0.06] | 6.236 [2.17]** | -1.429 [0.71] | -0.563 [0.24] | 1.726 [0.90] | -5.603 [0.65] |
| IO_Private_Pension_Fund | -13.273 [1.16] | -23.286 [1.07] | -11.425 [0.99] | -13.677 [1.07] | -18.235 [1.24] | 15.439 [0.54] |
| IO_Pressure_Indeterminate | 0.054 [0.31] | 0.054 [0.19] | 0.064 [0.34] | 0.129 [0.63] | -0.052 [0.20] | 0.169 [0.25] |
| Ban States*Post Dummy | -0.050 [0.39] | 0.160 [0.64] | -0.171 [1.31] | 0.127 [0.86] | -0.303 [1.77] | -0.450 [1.07] |
| IO_Pressure_Sensitive*Post Dummy | 0.432 [3.09]*** | 0.746 [3.13]*** | -0.386 [1.80]* | -0.066 [0.47] | 2.009 [1.77]* | 41.052 [1.07] |
| IO_Investment_Companies*Post Dummy | -0.276 [1.03] | 0.128 [0.24] | -0.340 [1.22] | -0.153 [0.48] | -0.376 [1.16] | -1.023 [0.90] |
| IO_Public_Pension_Fund*Post Dummy | 1.364 [0.98] | -0.426 [0.18] | 1.464 [0.92] | 2.303 [1.34] | -0.823 [0.29] | 4.971 [0.56] |

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| IO_Private_Pension_Fund*Post Dummy | 19.603 [1.74]* | 37.740 [1.83]* | 14.242 [1.15] | 21.052 [1.62] | 16.360 [1.10] | 26.175 [1.00] |
| IO_Pressure_Indeterminate *Post Dummy | 0.020 [0.14] | -0.036 [0.14] | 0.029 [0.18] | -0.009 [0.05] | 0.251 [1.20] | -0.998 [1.56] |
| Ban States*Post Dummy | 2.760 [4.90]*** | 2.817 [0.14] | 2.900 [5.46]*** | 2.834 [4.38]*** | 3.404 [1.42] | 33.172 [1.56] |
| IO_Pressure_Sensitive Ban States* | -0.249 [0.55] | 0.231 [0.28] | -0.348 [0.72] | -0.228 [0.42] | -0.230 [0.36] | -0.378 [0.25] |
| IO_Investment_Companies Ban States* | -2.794 [1.02] | -10.070 [0.72] | -1.043 [0.37] | -2.097 [0.42] | -5.252 [1.39] | 7.228 [0.75] |
| IO_Public_Pension_Fund Ban States* | | 31.003 [2.27]** | -8.670 [0.66] | 13.616 [0.66] | -20.428 [0.81] | -85.559 [1.78]* |
| IO_Private_Pension_Fund Ban States* | -2.227 [0.13] | -0.761 [1.03] | 0.741 [0.31] | 0.100 [0.73] | -0.136 [0.82] | -0.773 [0.82] |
| IO_Pressure_Indeterminate Ban States* | -0.025 [0.09] | 0.088 [0.37] | 0.088 [0.48] | 0.299 [0.52] | 0.270 [0.34] | -37.443 [0.85] |
| IO_Pressure_Sensitive Ban States*Post Dummy* | 0.305 [0.61] | 0.326 [0.48] | 0.299 [0.32] | -0.120 [0.52] | -0.366 [0.74] | -0.139 [0.09] |
| IO_Investment_Companies Ban States*Post Dummy* | 0.149 [0.35] | -0.364 [0.35] | 0.267 [1.63] | 0.267 [1.01] | 0.589 [0.12] | -2.288 [0.23] |
| IO_Public_Pension_Fund Ban States*Post Dummy* | 4.131 [1.74]* | 7.234 [1.60] | 3.796 [0.59] | 2.788 [0.23] | 7.622 [1.98]** | |
| IO_Private_Pension_Fund Ban States*Post Dummy* | -18.548 [0.98] | -36.396 [1.00] | -18.096 [0.90] | -24.587 [0.98] | 1.122 [0.04] | -38.608 [0.74] |
| IO_Pressure_Indeterminate Ban States*Post Dummy* | -0.246 [1.02] | -0.255 [0.52] | -0.086 [0.34] | -0.298 [1.17] | | 1.268 [1.46] |
| PAC Contributions | 0.013 [3.57]*** | 0.006 [0.99] | 0.014 [3.84]*** | 0.014 [3.33]*** | 0.011 [2.14]** | 0.002 [0.15] |
| Executive Contributions | 0.046 [6.67]*** | 0.025 [2.61]*** | 0.053 [6.83]*** | 0.055 [6.22]*** | 0.026 [2.54]** | 0.066 [2.85]*** |
| Lobbying | 0.034 [5.65]*** | 0.044 [5.11]*** | 0.031 [4.83]*** | 0.021 [3.17]*** | 0.054 [6.34]*** | 0.065 [3.67]*** |
| Constant | -1.879 [7.19]*** | -3.577 [9.80]*** | -2.099 [7.43]*** | -2.756 [8.80]*** | -2.331 [7.19]*** | -4.838 [6.60]*** |
| Financial Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| N | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 | 7,800 |

**Table 10: Changes of Lobbying, Executive, and PAC Contributions after the *Citizens United* Ruling**

This table shows results of changes of political expenditures from 2007 to 2012 based on OLS regressions. The dependent variable in columns (1) and (2) is the natural log of corporate lobbying expenditures. The dependent variable in columns (3) and (4) is the natural log of past political contributions made by current managers. The dependent variable in columns (5) and (6) is the natural log of PAC contributions. *Ban States* is a binary variable that equals one if the headquarter of the firm locates in the state that had bans on independent expenditures on state elections and zero otherwise. *Post Dummy* is a dummy variable that equals one from 2010 to 2012 and zero from 2007 to 2009. *I.O_DOM* is the institutional ownership of domestic institutions. *Connection* is the number of political connections firms had with government organizations. *Lobbying* is the natural log of the amount of corporate lobbying expenditures. *Executive Contributions* is the natural log of the amount of managerial contributions. It captures all past contributions made by current managers and does not include contributions made by past managers. *PAC Contributions* is the natural log of the amount of PAC contributions. The definitions of other financial control variables are listed in the Appendix. We winsorise each control variable at the 1st and 99th percentiles, respectively. We include 11 industry dummy variables based on Fama-French 12 industries and cluster standard errors by firm. ***, ** and *represent 1%, 5% and 10% significance level, respectively.

| | Lobbying | Lobbying | Executive Contributions | Executive Contributions | PAC Contributions | PAC Contributions |
|---|---|---|---|---|---|---|
| Ban States | 0.171 | 1.097 | 0.127 | -0.440 | -0.201 | -0.149 |
| | [0.60] | [1.18] | [0.79] | [0.78] | [1.27] | [0.27] |
| Post Dummy | 0.078 | 0.525 | -1.067 | -0.793 | 0.001 | 0.341 |
| | [0.59] | [1.20] | [9.45]*** | [2.25]** | [0.01] | [1.13] |
| I.O_DOM | | 0.076 | | -0.917 | | -0.797 |
| | | [0.10] | | [2.13]** | | [1.54] |
| Ban States*Post Dummy | 0.106 | -1.116 | -0.041 | -0.625 | 0.151 | -0.659 |
| | [0.58] | [1.44] | [0.24] | [0.92] | [1.50] | [1.39] |
| I.O_DOM*Post Dummy | | -0.625 | | -0.413 | | -0.506 |
| | | [1.05] | | [0.88] | | [1.31] |
| Ban States* I.O_DOM | -1.229 | | 0.769 | | -0.053 | |
| | [1.06] | | [1.07] | | [0.08] | |
| Ban States*Post Dummy*I.O_DOM | | 1.645 | | 0.829 | | 1.117 |
| | | [1.62] | | [0.96] | | [1.85]* |
| Connection | 0.222 | 0.219 | 0.097 | 0.094 | 0.230 | 0.226 |
| | [3.77]*** | [3.72]*** | [4.09]*** | [3.99]*** | [6.76]*** | [6.61]*** |
| Lobbying | | | 0.059 | 0.059 | 0.113 | 0.112 |
| | | | [5.07]*** | [5.03]*** | [7.62]*** | [7.54]*** |
| Executive Contributions | 0.172 | 0.172 | | | 0.091 | 0.088 |
| | [5.98]*** | [5.95]*** | | | [5.82]*** | [5.65]*** |
| PAC Contributions | 0.322 | 0.320 | 0.085 | 0.082 | | |
| | [8.01]*** | [7.96]*** | [4.94]*** | [4.80]*** | | |
| Constant | -8.468 | -6.684 | 5.111 | 5.720 | -2.514 | -2.024 |
| | [6.79]*** | [5.84]*** | [7.91]*** | [8.20]*** | [3.24]*** | [2.47]** |
| Financial Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes |
| Adjusted $R^2$ | 0.31 | 0.31 | 0.25 | 0.26 | 0.34 | 0.34 |
| N | 7,810 | 7,810 | 7,800 | 7,800 | 7,800 | 7,800 |

## Appendix: Variable Definitions

| | |
|---|---|
| *Connection* | The number of political connections firms had with government organizations in 2009. We count it as one political connection if individuals with political background currently hold a position in the firm. *Source: BoardEx database* |
| *Lobbying* | The natural log of the sum of all prior corporate lobbying expenditures till 2009. *Source: Center for Responsive Politics* |
| *Executive Contributions* | The natural log of the total amount of managerial contributions. It captures all past contributions made by current managers in 2009 and does not include contributions made by past managers. *Source: ExecuComp & FEC* |
| *PAC Contributions* | The natural log of the sum of all prior political contributions from corporate Political Action Committees (PACs) to state elections till 2009. *Source: Follow The Money* |

*Panel B: Institutional Ownership*

| | |
|---|---|
| *I.O_DOM* | The sum of the holdings of all institutions domiciled in US where the stock is listed divided by the firm's market capitalization. *Source: FactSet/LionShares Database* |
| *IO_Pressure_Sensitive* | The percentage of shares held by insurance companies, banks, and nonbank trusts. The current or prospective business relationships of these types of institutions with corporations tend to make this group more "pressure-sensitive" with respect to corporate management. *Source: FactSet/LionShares Database* |
| *IO_Pressure_Resistant* | The percentage of shares held by public pension funds, mutual funds, endowments, and foundations. These institutions are more likely to collect information, are subject to fewer regulatory restrictions, and have fewer potential business relationships with the corporations in which they invest. *Source: FactSet/LionShares Database* |
| *IO_Pressure_Indeterminate* | The percentage of shares held by brokerage houses, investment counsel firms, miscellaneous and unidentified institutions. *Source: FactSet/LionShares Database* |

*Panel C: Corporate Governance*

| | |
|---|---|
| *G-Index* | An equally-weighted index based on 24 governance provisions provided by Investor Responsibility Research Center (IRRC) (Gompers, Ishii, and Metrick, 2003). High G-Index indicates weak corporate governance. *Source: IRRC & RiskMetrics Database* |
| *E-Index* | An entrenchment index based on six provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for charter amendments and mergers (Bebchuk, Cohen, and Ferrell, 2009). High E-Index indicates weak corporate governance. *Source: RiskMetrics Database* |
| *Excesspay* | The difference between CEO compensation and the median compensation of a set of peer firms in the same industry and of similar size as that of the firm (Larcker, Ormazabal, and Taylor, 2011). Specifically, it is calculated as the natural logarithm of total compensation (variable *TDC1* from |

ExecuComp) for the CEO less the natural logarithm of the median total annual pay for all remaining firms on ExecuComp that are in the same Fama and French (1997) 12 industry group and size quintile of the firm for the same year. High Excesspay indicates weak corporate governance.

*Source: ExecuComp*

| CEO Duality | A binary variable that equals one if the CEO held the position of chairman of the board as of December 31, 2009 and zero otherwise. If CEO Duality equals one, it indicates weak corporate governance. |

*Source: RiskMetrics Database*

*Panel D: Financial Control Variables*

| Size | The natural log of market value of equity (item 25*item 24) |

*Source: Compustat*

| BM | The book value of equity (item 60) divided by market value of equity (item 25*item 24) |

*Source: Compustat*

| Past Return | The past stock return for the previous twelve months |

*Source: Center for Research in Securities Prices (CRSP) files*

| ROA | Operating income (item 13) divided by book assets (item 6) |

*Source: Compustat*

| Debt | Book value of debt (item 9+ item 34) divided by book assets (item 6) |

*Source: Compustat*

| Cash | Cash holdings (item 1) over book assets (item 6) |

*Source: Compustat*

| Leverage | Book value of debt (item 9+ item 34) divided by the sum of book value of debt (item 9+ item 34) and market value of equity (item 25* item 24) |

*Source: Compustat*

| Tobin's Q | The book value of assets (item 6) minus book value of equity (item144) plus market value of equity (item 25* item 24), all divided by book value of assets (item 6) |

*Source: Compustat*

| Free Cash Flow | The gross operating income (item 13) minus the sum of depreciation (item 14), tax paid (item 16), interest expenses (item 15) and dividends paid (item19+item 21) |

*Source: Compustat*

| Sales Growth | The difference between current sales (item 12) and lagged sales, all divided by lagged sales. |

*Source: Compustat*

| Herfindahl Index | The annual sum of squared market shares for all Compustat firms in each industry based on two-digit SIC code, and it approaches a maximum value of one as the industry concentration approaches a monopoly. |

*Source: Compustat*