

Court-Ordered Campaign Finance Deregulation and Stock Value of Contributors*

Haishan Yuan[†]

University of Queensland

December 24, 2014

Abstract: The Bipartisan Campaign Reform Act of 2002 addressed two issues, soft money and independent expenditures on issue ads for electoral advocacy. The Supreme Court initially upheld most provisions in 2003 but subsequently weakened and struck down provisions on independent expenditures. I examine the stock value of firms with a long history of campaign contributions around the key developments of three Supreme Court cases. Stock prices of contributing firms react positively to Court events associated with campaign finance deregulation. It implies that the average rates of return to these rights of political spending are between 1% and 2% of stock values.

Keywords: Campaign Finance, Bipartisan Campaign Reform Act of 2002, *McConnell v. FEC*, *FEC v. Wisconsin Right to Life*, *Citizens United v. FEC*.

JEL Classification Numbers: D72, P48, K23.

1 Introduction

How influential is money in U.S. politics? Ansolabehere, de Figueiredo, and Snyder (2003) summarize a large body of literature studying the effects of campaign contri-

*I thank Ethan Kaplan, John Shea, Allan Drazen, Nuno Limão, Razvan Vlaicu, John Wallis, Eric Zitzewitz, Ingmar Prucha, Ginger Jin, Baolian Wang, Max Schanzenbach, Mario Fiorini, two anonymous referees and seminar participants at the University of Maryland for helpful comments. I thank Baolian Wang and Lei Zhang for their help in obtaining data. All errors are mine.

[†]Address: School of Economics, University of Queensland, Level 6 Colin Clark Building, St. Lucia, QLD 4072 Australia; Email: h.yuan@uq.edu.au

butions by political action committees (PACs) of corporations on roll call voting in Congress. Despite the public perception of massive influence, evidence for the causal effects from money to legislation is weak at best in the literature. As they argue, studies of this kind typically suffer from the problem of reverse causality. Interest group money tends to flow to candidates and members of Congress who are already aligned with the interests of those contributors. This creates a positive bias to OLS estimates of the effects of campaign contributions on legislative voting.

Studying the relationship between campaign contributions and roll call voting may not be a good way to identify the effect of money on politics for other reasons beside reverse causality. First, roll call voting may be a poor outcome measure. Roll call voting occurs in the last stage of legislation. Given that most bills do not reach the House or Senate floor for a vote, the best way to bury an unfavorable bill arguably is to make sure that it does not get out to the floor in the first place. Anecdotally, many parliamentary maneuvers can be deployed to doom a bill or to substantially change the content of a bill before a floor vote. Moreover, when a floor vote occurs, the bill is often passed or defeated by a large margin. As no vote is pivotal in these cases, the votes need not reflect the interests of special interest groups.

Second, the amounts of campaign contributions are potentially noisy measures of the influence of money on politics. There are alternative means of political spending, such as independent expenditures and lobbying. Even for campaign contributions, the electoral value of a certain level of spending depends on a set of factors such as timing, how competitive the race is, and the price of campaign ads in the local media market. Campaign contributions may have an unobserved shadow value from the implicit threats of funding a candidate's opponents (Chamon and Kaplan, 2013) and may be a strategic substitute for the electoral power an interest group has from its local membership (Bombardini and Trebbi, 2011). These factors vary substantially from candidate to candidate and are difficult to control for. Given that the impacts of campaign contributions on roll call voting may be small, one would worry about attenuation biases in the estimates. In sum, the relationship between campaign contributions and roll call voting may not be very informative for understanding the influence of money in U.S. politics.

Campaign finance regulation is the most frequent solution proposed to limit the potential distortions that money in politics brings to policy making. By limiting transfers of resources from interest groups to politicians, campaign finance regulations may achieve a policy-making process that is biased less toward special interest groups. In this paper, I use an event study approach to overcome the difficulties of identifying a causal impact

of political spending by corporations on a favorable legislative environment. I examine the changes in the stock values of firms that had contributed to congressional elections around the dates of key developments in three Supreme Court cases concerning the constitutionality of the Bipartisan Campaign Reform Act of 2002 (BCRA).

The BCRA addressed two issues in campaign finance, namely soft money and independent expenditures on issue ads for electoral advocacy (“electioneering communications”). Soft money refers to contributions to national parties for the purposes of general party-building, which are not subject to contribution limits. Independent expenditures on “electioneering communications” are expenditures by corporations on broadcast communications, which clearly identify a candidate but are made without coordinating with the candidate. The constitutionality of key provisions of the BCRA were challenged in three cases presented to the Supreme Court. In *McConnell v. Federal Election Commission* (2003), hereafter McConnell, most of the provisions of BCRA were upheld. In *Federal Election Commission v. Wisconsin Right to Life, Inc.* (2007), hereafter WRTL II, the BCRA’s provisions on “electioneering communications” were weakened. In *Citizens United v. Federal Election Commission* (2010), hereafter Citizens United, the BCRA’s provisions on “electioneering communications” were struck down. This decision also set a precedent for allowing corporations to spend an unlimited amount of money from their general treasuries to support or oppose a candidate.

If relaxing constraints imposed by the BCRA on political spending by corporations allows firms to obtain policies that are more favorable toward them, the potential benefits that are otherwise difficult to measure would be capitalized into stock prices upon the arrivals of such news. By studying the stock returns of firms that contributed to congressional candidates in all election cycles between 2003 and 2008 on dates surrounding developments of the three cases, including granting reviews, oral arguments, and decision announcements, I find that loosening campaign finance regulation is positively associated with the stock value of politically active firms. Based on a Fama-French three-factor model, stocks of politically active firms on average have a cumulative abnormal return (CAR) of -0.27% over three days coinciding with major developments of McConnell, which upheld campaign finance restrictions. Stocks of politically active firms on average have a CAR of 0.41% over days coinciding with major developments of WRTL II and a closely related case *Wisconsin Right to Life, Inc. v. Federal Election Commission* (2006), hereafter WRTL I. In Citizens United, the mean CAR is 1.01%. Together, these findings suggest that campaign finance regulation has a substantial impact on the stock value of contributing firms. Alternative measures of cumulative abnormal return, such as excess

returns relative to matched non-contributing firms in the same industry, yield similar estimates. Moreover, contributing firms whose prices suggests low growth prospects have higher abnormal returns around the Supreme Court events related to the deregulation of political spending.

2 Literature Review

Several papers also examine how stock prices response to Citizens United events. Werner (2010) finds that firms that spent more on lobbying or have had an active PAC did not have higher abnormal returns in three Supreme Court events related to Citizens United: the ordering of re-argument, the second round of argument and the decision announcement. Burns and Jindra (2013) find that firms in regulated industries on average have had positive abnormal returns around the decision announcement of Citizens United. Moreover, Ansolabehere et al. (2004) find that stock prices of soft money donors do not react positively to legislative events of BCRA and the argument and decision of McConnell.

This paper departs from the aforementioned studies by considering a full set of Supreme Court events in three major litigations that challenged BCRA. Such approach provides three advantages. First, the estimated impacts of changes in campaign finance laws are less susceptible to confounding information revealed around one particular event.

Second, the large set of events that I analyze in this paper provides greater statistical power. Using a similar set of firms studied in Ansolabehere et al. (2004), that is Fortune 500 companies with at least a moderate amount of soft money donation, I also find a positive impact of loosening campaign finance regulation on firm value.

Third, covering major developments of all three litigations mitigates the concern that in later cases such as Citizens United, or in later stages of a case such as final decision, the events were more or less expected. To the extent that some expectation of law changes still form outside of included events, this paper provides a conservative estimate of the overall impact of related deregulation on stock prices of contributing firms.

An emerging literature finds that policy outcomes, such as the number of immigration visas granted to an industry (Facchini et al., 2011) and earmarks granted to a university (De Figueiredo and Silverman, 2006), are responsive to lobbying expenditure by beneficiaries. The focus of this literature on lobbying expenditure is in part motivated by the fact that lobbying expenditure by interest groups is by an order of magnitude greater than their spending on campaign contributions (Milyo et al., 2000). The findings in this

paper suggest that campaign finance regulation is at least partially responsible for campaign contributions not appearing to be the primary outlet for money in politics. The findings in this paper are also consistent with previous studies that find that corporate spending in the electoral process affects firm values. For example, Jayachandran (2006) finds that firms that contributed soft money to the Republican Party experienced sizable drops in their stock values when then Senator James Jeffords left the Republican Party to become an Independent. This was a surprising event that resulted in a switch of majority control in the Senate from the Republicans to the Democrats.

In contrast to Werner (2010) and Saike and Werner (2014), who mainly focus on firms with lobbying expenditure, the focus in this paper is on firms with a long history of campaign contributions.¹ While both types of spending may correlate with firms' potential gains from engaging in politics, they are likely to function differently.

In cheap talk models such as those proposed by Grossman and Helpman (2001), and Austen-Smith (1995), lobbying is a strategic transmission of information, while in Hall and Deardorff (2006), lobbying is a subsidy of effort to legislative activities. In both frameworks, however, effective lobbying requires sufficient alignment of interests between legislators and interest groups. Empirical evidence supports such a prediction. Lobbying spending increases earmarks to universities only when these universities have representatives in the House or Senate Appropriations Committee (De Figueiredo and Silverman, 2006). Notably, in the period proceeding the subprime mortgage crisis, when the mortgage industry's lobbying expenditure increased sharply, this industry targeted legislators whose constituents contained a large fraction of subprime borrowers (Mian et al., 2013).

When effective lobbying is conditional on alignment of interests, corporate spending in the electoral process provides access to legislators by signaling the alignment of interests and hence the value of access (Austen-Smith, 1995). In other words, the electoral motives of campaign contributors to help friendly legislators in elections are integrated with the policy motives to shape favorable policies. The large impact of the change of Senate majority control on stock value of contributors found by Jayachandran (2006) also suggests that investments in political connections are to a good extent sunk and can not be adjusted quickly. Lobbying firms may already have access through prior contribution or alternative means. Therefore, relaxing legal constraints on spending in

¹Saike and Werner (2014) sum lobbying expenditure and campaign contribution during 2008 for a measure of political activities. Since lobbying expenditure is an order of magnitude larger than campaign contribution, the variation of this measure is likely driven by the variation in lobbying expenditure.

the electoral process to build political connections may have a weaker effect for these firms. Consistent with this interpretation, I find that a subsample of firms contributing hard money as well as soft money before BCRA had higher abnormal returns as BCRA weakened; meanwhile, a subsample of contributors who also lobbied in 2008 and 2009 had lower albeit still positive abnormal returns.

A limitation of this paper is that I am not able to discern the causal channels through which campaign contributions affect firm value. Broadly speaking, there are two motives for firms to spend in the electoral process. One is an electoral motive to help to elect friendly legislators. The other is a policy motive to change legislating behaviors of elected legislators through spending in the political process. However, if electoral spending by firms is to provide lobbying access rather than outright *qui pro quo* between politicians and firms, the electoral motive and policy motive are tightly integrated.

Another limitation of this paper is that I am unable to adequately capture the distribution of gains and potential losses from the deregulation of political spending. Because disclosure requirements for corporate independent expenditure are weak, it is unclear how the set of spending firms changed. Moreover, while I find that firms with low growth prospects benefit more, it is unclear how the loosened regulation affects the collective action problems faced by different industries. For example, it is unclear how deregulation might affect firms' decisions to lobby alone or together, as studied in Bombardini and Trebbi (2008) in a pre-Citizens United environment. Depending on the industrial structure and what policies are affected by deregulation, firms that have never been active in politics may benefit from free riding for greater policy benefits or lose out due to disadvantaged competitive positions. Furthermore, it is possible that management of firms uses corporate political spending for personal consumption and investments for future political career. In this case, the deregulation might lower the value of firms with weak governance. Skaife and Werner (2014), extending Werner (2010) by including one more event related to FEC advisory opinion, find that firms with more lobbying and campaign contribution expenditure but weak governance indicators had lower abnormal returns in their Citizens United events.

3 Background

3.1 Bipartisan Campaign Reform Act of 2002

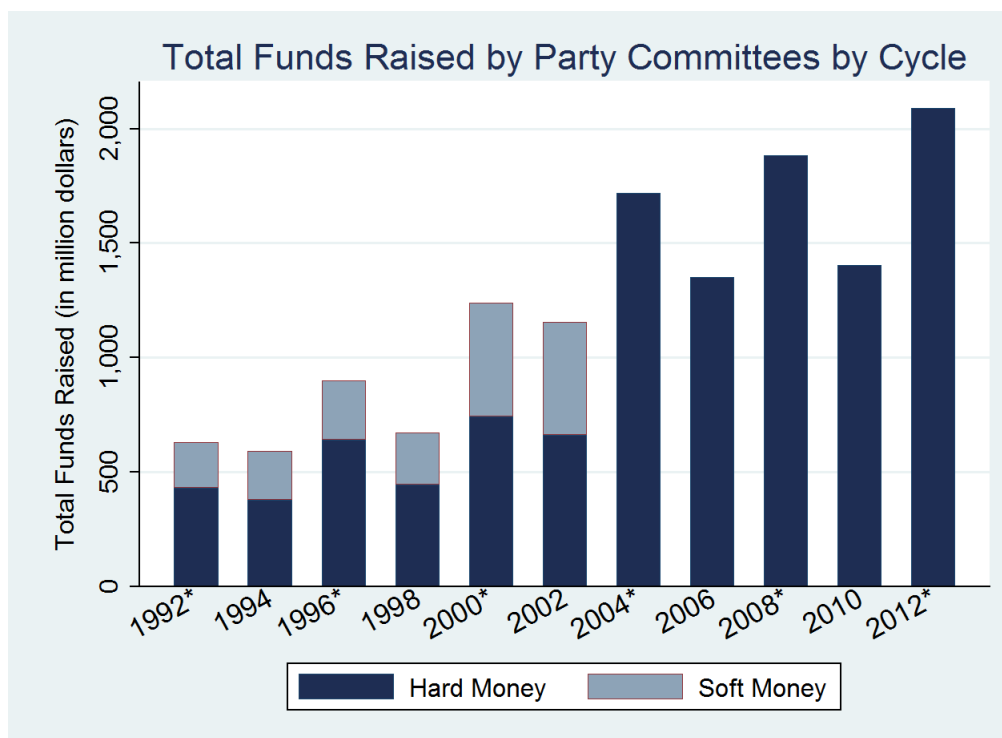
The Federal Election Campaign Act of 1971 and its subsequent amendments imposed legal limits and disclosure obligations on campaign contributions and political expenditures on federal elections. Contributions subject to legal limits are referred to as *hard* money. However, the increasing use of so-called *soft* money and issue ads for electoral advocacy over time have made these limits less relevant.

Soft money refers to funds contributed to national parties that are supposed to be used in state and local elections and for general purpose party-building. As a result of several rulings by the Federal Election Commission (hereafter FEC), and by the Supreme Court in *Colorado Republican Federal Campaign Committee v. Federal Election Commission* (1996), soft money can be legally used in activities mixing with campaigning. Figure 1 shows that soft money made up a growing share of total funds raised by national parties prior to the passage of the BCRA in 2002.

The proliferation of issue ads also weakened the effectiveness of contribution limits. In *Buckley v. Valeo* (1976), the Supreme Court upheld legal limits on campaign contributions but struck down limits on independent expenditure, which refers to political spending that is not coordinated with a candidate. The Court ruled that issues ads are constitutionally protected political speech and could be financed by interest groups with an electoral purpose in mind as long as they did not explicitly coordinate with a candidate. For example, a conservative interest group could buy ads condemning legal abortions and link their negative message to a pro-choice candidate in order to defeat him or her. Such ads are often called shame ads.

Mainly motivated by concerns about these two loopholes in campaign finance, then Senators Russ Feingold and John McCain led a longtime effort to pass the Bipartisan Campaign Reform Act of 2002, a.k.a. the McCain–Feingold Act. Title I of the BCRA bans national party committees from raising or spending money not subject to contribution limits, even for state and local elections. Title II of the BCRA defines banned corporations, unions, or unincorporated entities from using money from their general treasuries to pay for “electioneering communications”, defined as broadcast, cable, or satellite communications identifying a federal candidate made within 30 days before a primary or sixty days before a general election.

Figure 1: Total Funds Raised by Party Committees by Election Cycle



Funds raised by all committees affiliated with the Democratic Party and the Republican Party;

* indicates an presidential election cycle;

Source: Center for Responsive Politics.

3.2 McConnell v. Federal Election Commission

Upon the passage of the BCRA, then-Majority Whip Senator Mitch McConnell, immediately challenged its constitutionality in the United States District Court for the District of Columbia. A special three-judge panel of the District Court struck down provisions related to the soft money ban but upheld others. The ruling never went into effect as it was immediately appealed to the Supreme Court. A section in the BCRA mandates that any constitutional challenge to the act must be filed with the U.S. District Court for the District of Columbia, and reviewed only by a direct appeal to the Supreme Court. This provision was originally intended to reduce uncertainty over the application of the law during election periods. But for our purpose of studying stock price reactions to case developments in the Supreme Court, this feature of the BCRA is helpful in that it skips the usual appeal process at the U.S. Court of Appeals and maintains uncertainty about the final ruling on the law. The Supreme Court agreed to

review the case on June 5, 2003 and held a three-hour session for oral arguments on September 8, 2003. These sessions are usually one hour long. On December 10, 2003, the Court announced a 5-4 decision concluding that “with two minor exceptions, the entire statute is constitutional”.² The decision to grant review, the oral arguments and the decision announcement are the three events that I study for this case.

3.3 Federal Election Commission v. Wisconsin Right to Life, Inc.

This section considers two closely related cases, *Wisconsin Right to Life, Inc. v. Federal Election Commission* (2006), hereafter WRTL I, and *Federal Election Commission v. Wisconsin Right to Life, Inc.* (2007), namely WRTL II. Technically, there are two separate cases, but since they involved the same parties and the litigation was not finally settled until the Supreme Court later ruled in WRTL II, I consider the two cases as one.

Shortly before the Wisconsin primary in 2004, Wisconsin Right to Life, Inc. (WRTL) began to broadcast advertisements alleging that a group of senators were filibustering to delay and block federal judiciary nominees and urged voters to contact Wisconsin Senators Feingold and Kohl to ask them not to support the filibuster. WRTL planned to continue broadcasting in the 30-day pre-primary window and to pay for the ads with money from their general treasury. Anticipating violation of the BCRA provisions on “electioneering communications”, WRTL sought declaratory and injunctive relief by suing against the FEC. They argued that the BCRA prohibitions were unconstitutional as applied to the three ads in question and similar ads they intended to run in the future. The U.S. District Court for the District of Columbia denied a preliminary injunction and subsequently dismissed WRTL’s case, citing reasoning in *McConnell v. FEC*. WRTL appealed to the Supreme Court and was granted review on September 27, 2005. The Supreme Court heard the case on January 17, 2006. On January 23, 2006, the Court swiftly issued a *per curiam* decision (WRTL I) vacating the District Court’s decision, and remanded the case back to the District Court. The opinion stated that, although the decision in *McConnell* held that BCRA provisions on “electioneering communications” were constitutional *on its face*, the District Court erred in concluding that the precedent of *McConnell* forecloses future *as-applied* challenges to BCRA.³ The brief opinion, based

²The two exceptions prohibited individuals 17 years old or younger from contributing to federal candidates or parties, and required political parties to choose between coordinated or independent expenditures for their nominees.

³In *United States v. Salerno* (1987), the Court stated “A facial challenge to a legislative Act is, of

on very technical and narrow grounds, nevertheless opened a door for future as-applied challenges to the BCRA.

The District Court heard the case again and ruled in favor of WRTL. The FEC subsequently appealed to the Supreme Court and formally presented the question of whether as-applied challenges to the prohibition of corporate financing of “electioneering communications” are permitted and, if so, whether the prohibition could be constitutionally applied to the ads pertaining to this case. The Supreme Court granted review to the appellant FEC on January 19, 2007 and heard oral arguments on April 25, 2007. On June 25, 2007, the Supreme Court announced its 5-4 decision (WRTL II) to uphold the lower court’s decision in favor of WRTL. In the majority opinion of WRTL II, Chief Justice Roberts maintained that an ad is eligible for exemption from prohibitions of “electioneering communications” unless it is “susceptible of no reasonable interpretation other than as an appeal to vote for or against a specific candidate”. Consequently, this decision weakened BCRA regulations on “electioneering communications”. However, constitutional scholars remain split over the extent of the decision’s impact (Briffault, 2008; Levitt, 2010; Persily, 2010). The decision to grant review, oral arguments and decision announcements in both WRTL I and WRTL II are the six events that I study from this case.

3.4 Citizens United v. Federal Election Commission

Citizens United, a conservative ideology group, released a negative documentary of Senator Hillary Clinton during her campaign for the presidency in 2008. It was to be distributed through on-demand cable TV and as a DVD with companion book. Citizens United intended to air the film, as well as a commercial advertising the film, within 30 days before Democratic primaries and 60 days before the general election if Senator Clinton had won the Democratic nomination. Anticipating violations of the BCRA provisions on “electioneering communications,” Citizens United sought declaratory and injunctive relief at the U.S. District Court for the District of Columbia, arguing that the BCRA prohibition as well as disclaimers and disclosure requirements could not be constitutionally applied to the film and commercial (as-applied challenge). The District Court denied their motion and Citizens United appealed to the Supreme Court, maintaining their as-applied challenge.

course, the most difficult challenge to mount successfully, since the challenger must establish that no set of circumstances exists under which the Act would be valid”.

The Supreme Court granted review on November 14, 2008 and heard the case on March 24, 2009. On June 29, 2009, the Court ordered the counsels to re-argue the case on September 9, 2009 to address the question of whether the Court should overrule either or both of the “electioneering communications” portions of the McConnell decision and an earlier precedent, *Austin v. Michigan Chamber of Commerce* in 1990 (hereafter *Austin*), in which the Court ruled that it was constitutional to restrict independent expenditures by corporations. Justice Stevens later pointed out in his dissenting opinion that Citizens United did not adapt a position to challenge the *facial* validity of the BCRA provisions on “electioneering communications” before the Supreme Court. By inviting the parties to debate the *facial* constitutional validity of the BCRA provisions on “electioneering communications,” the Court jeopardized the principle of judicial restraint. In light of this dissent, the Court’s decision to ask for re-argument may signal an intention to overrule McConnell. For this case, the decision to grant review, initial oral arguments, the call for re-argument, the re-argument itself, and the final decision are the five events that I study for this case.

In the final decision of *Citizens United v. Federal Election Commission* on January 21st, 2010, the Supreme Court with a 5-4 majority overturned portions of McConnell concerning “electioneering communications” and an earlier precedent, *Austin v. Michigan Chamber of Commerce* (1990). The Court ruled that corporations, for-profit or not, have a First Amendment right to speech and that the prohibition of “electioneering communications” by the BCRA overburdens corporations’ exercise of this right. Therefore, the Court ruled that corporations could spend an unlimited amount of money from their general treasuries to finance express advocacy ads to support or oppose a candidate, as long as such spending was not coordinated with a candidate. Before the BCRA, corporations were allowed to make independent political expenditures as long as they did not expressly advocate for the election or defeat of a clearly identified candidate. The test for express advocacy was whether the ad both clearly identifies a candidate and uses some magic words such as “vote for” or “vote against.” However, corporations prior to 2002 had been able to circumvent this restriction by using shame ads, which the BCRA attempted to prohibit.⁴ Therefore, the Citizens United decision stuck down not only the BCRA provisions on “electioneering communications,” but also portion of the Federal Election Campaign Act that restricted independent expenditures by corporations. The

⁴As delineated in *FEC v. Massachusetts Citizens for Life* (1986), a small, restricted class of not-for-profit, political organizations were exempted from the prohibition of making express advocacy. Other entities, including not-for-profit organizations established by a business corporation, remained banned from making express advocacy ads under the Federal Election Campaign Act.

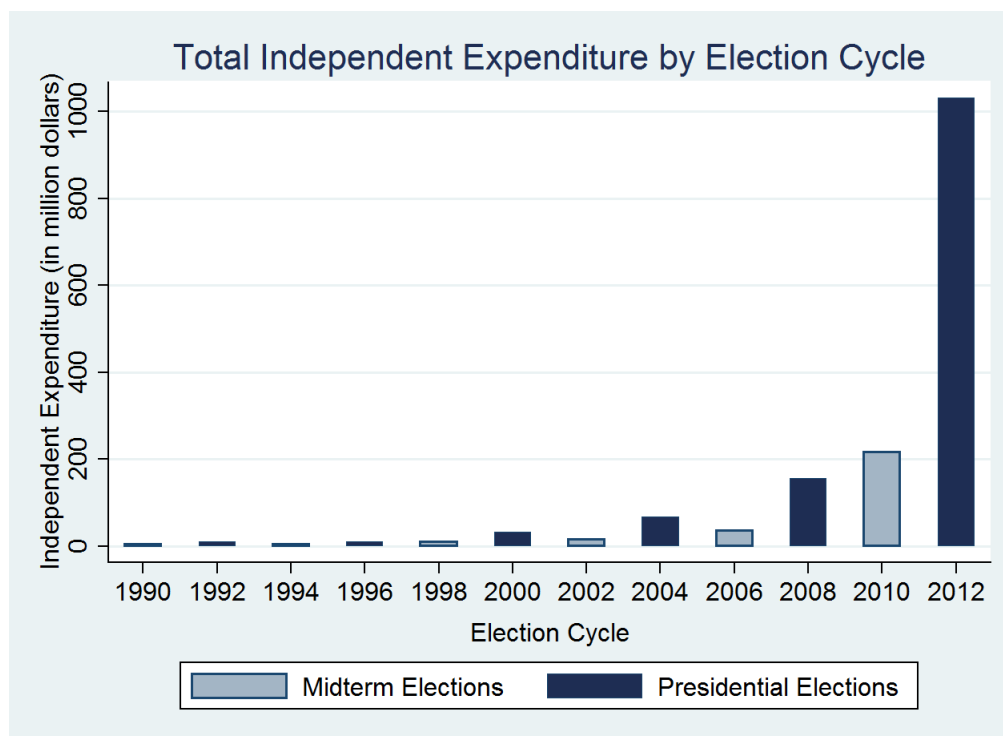
decision also reversed a large body of case law. By stipulating that corporations, for profit or not, have a First Amendment right to free speech, Citizens United represented a dramatic doctrinal shift on campaign finance regulation.

Citizens United did not change limits on direct campaign contributions, soft money bans, or disclaimers and disclosure requirements on independent expenditure. However, following the reasoning of the decision, the U.S. Court of Appeals for the District of Columbia Circuit ruled in *SpeechNow.org v. Federal Election Commission* (2010) that individuals and corporations can donate an unlimited amount of money to political action committees that solely exist to make independent expenditures. This decision gave rise to independent-expenditure-only PACs, commonly known as Super PACs, which emerged in the 2010 midterm elections and were even more prominent in the 2012 presidential election. Super PACs, which are often aligned with specific candidates and managed by former campaign staff of the candidates, are likely to render contribution limits ineffective and disclosure requirements inadequate. The Citizens United group itself is registered as a tax-exempt nonprofit 501(c)4 organization under the U.S. Internal Revenue Code, a type of organization whose primary purpose is promotion of social welfare but that is allowed to engage in political activities. 501(c)4 organizations differ from 527 organizations, which are political organizations such as PACs, candidate committees, and party committees, in that 501(c)4 organizations only have disclosure obligations for independent expenditures but not for detailed sources of donations received. Therefore, the stand-by disclaimers by a campaign ad's sponsor may not adequately reveal information about an ad's financiers. Following Citizens United, there has been a spike in independent expenditures, as shown in Figure 2. In 2012, the first presidential election cycle following Citizens United, independent expenditures by outside groups had a more than six-fold increase from the previous presidential election, which had two competitive primaries rather than one in 2012.

3.5 Were Judicial Events Likely to Reveal News?

Events surrounding Supreme Court cases on campaign finance regulation will only have substantial impact on firm valuations if the events reveal news to the market. In other words, these events must not have been forecastable. Campaign finance has been a controversial area of constitutional law. Cases are often decided by close votes and sometimes no set of views commands an agreement within the voting majority (Briffault, 2008). McConnell, WRTL II, and Citizens United were all 5-4 decisions. There was

Figure 2: Total Independent Expenditures by Election Cycle



Independent expenditures by outside groups, excluding party committees;
Source: Center for Responsive Politics.

considerable uncertainty about the outcomes of the cases, which make them suitable for an event study.

Table 1 shows which justices were in the majority and minority in the three cases. In *McConnell*, Justice Sandra Day O'Connor was considered the swing vote. Her retirement in 2006 shifted the balance of the Court on *WRTL II* and *Citizens United*. However, Justice O'Connor was in the minority in *Austin*, in which the majority ruled that forbidding corporations from using their treasury money for independent expenditures to support or oppose a candidate did not violate the First and Fourteenth Amendments, which was one of the critical precedents that the counsels of the FEC relied on to defend the BCRA in *McConnell*, *WRTL II*, and *Citizens United*. *Austin* was overruled in *Citizens United*.

In *WRTL II*, there were two new Court members since *McConnell*: Chief Justice John Roberts, who clerked for and succeeded Chief Justice Rehnquist, and Justice Samuel Alito, who succeeded Justice O'Connor. Though both were nominated by President George W. Bush and were generally considered conservative, it was unclear how they would vote

in WRTL II. Justice Alito did not ask many questions during the oral argument of WRTL II to reveal his opinion.

In *Citizens United*, there was another new member of the court, as Justice Sonia Sotomayor had succeeded Justice David Souter, who was in the majority of *McConnell* but in the minority in WRTL II. In fact, the re-argument of *Citizens United* was the first case heard by Justice Sotomayor on the Court's bench. Another dimension of uncertainty was the extent to which Chief Justice Roberts, as well as Justice Alito, were willing to narrow or reverse *McConnell*. This uncertainty pertained to both WRTL II and *Citizens United*. In WRTL, Justices Thomas, Scalia, and Kennedy did not sign on Parts III and IV of the opinion authored by the Chief Justice, as they preferred to overturn *McConnell* on "electioneering communications" outright. In *Citizens United*, the Chief Justice devoted a substantial part of the opinion to address the issue of *stare decisis*, the legal principle of respecting precedents.

The decision of WRTL I was *per curiam*. That is, it was designated as a collective and anonymous decision of the Court. *Per curiam* decisions are typically brief and based on narrow grounds, as was the case for WRTL I, which vacated the decision made by the lower court and remanded it for reconsideration.

Oral arguments can reveal information that might be capitalized into stock prices. How the oral argument proceeds is indicative to how the Justices will later vote. Justices tend to vote against the party toward whom more of their questions are directed (Epstein et al., 2009; Johnson et al., 2009). Their tone and the way they ask questions also matter (Shullman, 2004). Questions asked by the Justices also convey their concerns, which not only hint at which party the Justices intend to vote with, but also suggest whether they intend to decide the case on a broad or narrow ground. Moreover, for new members of the Court, their questions may also be informative of their legal approaches in the particular subject matter of the case, and more generally about their jurisprudence. For example, Epstein et al. (2009) find that Justices differ in their tendency to reverse rulings by lower courts. Iaryczower and Shum (2012) find not only that Justices differ in their ideological predisposition, but that their responsiveness to case-specific information varies as well. Lastly, how well a counsel is able to clarify his or her position and address the concerns of the Justices may sometimes change how a Justice votes (Johnson et al., 2009). In light of information revealed during oral arguments, financial markets could adjust their expectations about the outcomes of the cases, and more importantly about the application of campaign finance laws.

Having a case accepted by the Supreme Court is a crucial first step towards a suc-

cessful appeal at the high court. Only about 1% of cases filed with the Supreme Court are granted review, so the mere fact that a case is granted review is itself newsworthy. Expectations on the outcomes and implications of a case may be formed at this point. Moreover, as granting review only requires four votes from the Justices, a Justice with a strong opinion or agenda in an area may strategically select cases to be heard, depending on his or her estimate of the likelihood of securing a fifth vote to decide a case in line with his or her judgment (Toobin, 2007; Stern and Wermiel, 2010). In controversial and divisive areas such as campaign finance law, strategic considerations may be particularly relevant in granting review. For the above reasons, both the decision to grant review and oral arguments are studied as events potentially affecting share prices. However, results are qualitatively unchanged if only Court decisions are included as events.

Table 1: Court Memberships and Event Dates

	McConnell v. FEC	WRTL v. FEC	FEC v. WRTL	Citizens United v. FEC
Majority	O'Connor Ginsburg Stevens Breyer Souter	<i>per curiam</i> [†]	Kennedy Thomas Scalia Roberts Alito	Kennedy Thomas Scalia Roberts Alito
Minority	Kennedy Thomas Scalia Rehnquist	- - - -	Ginsburg Stevens Breyer Souter	Ginsburg Stevens Breyer Sotomayor
Granted	June 5, 2003	Sep. 27, 2005	Jan. 19, 2007	Nov. 14, 2008
Oral Argument	Sep. 8, 2003	Jan. 17, 2006	April 25, 2007	March 24, 2009
Re-argument Ordered	-	-	-	June 29, 2009
Re-argument	-	-	-	Sep. 9, 2009
Decision Announced	Dec. 10, 2003	Jan. 23, 2006	June 25, 2007	Jan. 21, 2010

[†]Court memberships in WRTL v. FEC are the same as in FEC v. WRTL

4 Data and Methodology

Data on campaign contributions made by PACs affiliated with business corporations are obtained from the Center for Responsive Politics. Corporations whose affiliated PACs contributed in all three election cycles to congressional candidates between 2003 and 2008 are included in the sample of politically active firms. These firms are matched with daily stock price and return data from the Center for Research in Security Prices (CRSP) by their names. The BCRA became effective on November 6, 2002, one day after the 2002 election. The main data consists of the stock returns of 553 matched firms from November 6, 2002 to December 31, 2011. Earlier stock return data are also used in calculating abnormal returns. In the benchmark specification, I use a Fama-French (1992, 1993) three-factor model to calculate abnormal returns. These factors are downloaded from Kenneth French’s website. When analyzing heterogeneous reactions in stock prices, I also use financial data of firms taken from COMPUSTAT, and employment data by state and industry from the U.S. Census Bureau, Local Employment Dynamics.

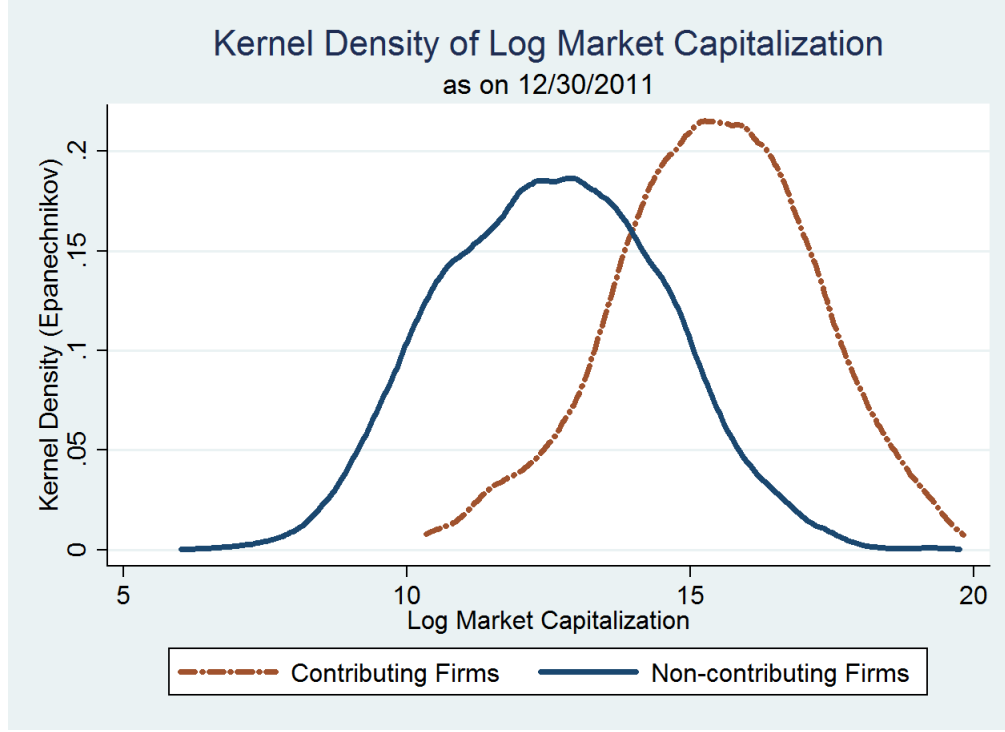
The contributing firms are relatively large. The median contributing firm had a market capitalization of \$5.1 billion on Dec 30, 2011, as compared to \$11.2 billion for a median S&P 500 firm. On average, sample firms account for 12% of listed U.S. firms in the CRSP dataset and for 61% of market capitalization. Figure 3 plots the kernel densities of log market capitalization as of Dec. 30, 2011 for both contributing firms and non-contributing CRSP firms. The median amount of campaign contributions is \$188,000 over the three election cycles. Sample firms span over 312 4-digit SIC industries and 192 3-digit industries. The majority of these firms also reported lobbying expenditures in 2008 and 2009 according to data taken from the Center for Responsive Politics, which compiles data on lobbying expenditures from the Senate Office of Public Records. Table 2 reports summary statistics of the data sample of contributing firms as well as the broader universe of CRSP observations.

In the baseline specification, I estimate the following model:

$$R_{it} = \alpha + \sum_{e \in E} \sum_{\tau=-5}^5 \beta_{e,\tau} D_{e,\tau,t} + \epsilon_{it}$$

where R_{it} is the abnormal return for the stock of firm i on day t , and $D_{e,\tau,t}$ is a dummy variable which takes on a value of one if day t is the τ th day following event e and zero otherwise (negative τ means $|\tau|$ days before event e). There are 14 events associated with the four Supreme Court cases. To allow for possible information leaks and time

Figure 3: Kernel Density of Log Market Capitalization of Contributing and Non-contributing Firms



for the market to digest the news, I look at 5 days before and 5 days after the event days. Thus, each event is associated with 11 dummy variables. However, as shown in the following section, the market seems to be quick to incorporate relevant news into stock prices, and there is only weak evidence that information is leaked before event days. For conservative estimates of stock price reactions to campaign finance deregulation, I focus on event windows no more than 3 days in length in subsequent analysis.

In order to calculate abnormal return R_{it} , I first estimate the following rolling Fama-French three-factor model for each day and each firm:

$$r_{it} - r_t^f = \alpha_i + \gamma_i(r_t^m - r_t^f) + \delta_i SMB_t + \lambda_i HML_t + \epsilon_{it}$$

where r_{it} is the buy-and-hold stock return for firm i on day t ; r_t^f is the risk-free return, equal to the one-day return on a 90-day treasury bill; r_t^m is the return of a market portfolio; SMB_t , small-minus-big, is the return on a portfolio of a small capitalization firms minus that on a portfolio of large capitalization firms; and HML_t , high-minus-low,

Table 2: Summary Statistics

Sample period	Nov. 6, 2002 - Dec. 31, 2011
All CRSP firms:	
Number of trading days	2305
Market capitalization of median S&P 500 firm*	\$11.2 billion
Market capitalization of all firms	\$ 13.4 trillion
Average number of trading firms	4471
Total number of firms	9303
Contributed to all three election cycles from 2003 to 2008:	
Number of firms	553
Number of observations	1132742
Median market capitalization*	\$ 5.12 billion
Total market capitalization†	\$ 8.16 trillion
Lobbied in 2008 and 2009	70%
Median campaign contributions from 2003 to 2008	\$ 187,500
Contributed to all six election cycles from 1997 to 2008:	
Number of firms	389
Number of observations	818052
Median market capitalization*	\$ 6.69 billion
Total market capitalization†	\$ 7.09 trillion
Lobbied in 2008 and 2009	73%
Median campaign contributions from 2003 to 2008	\$ 280,500

* As of Dec. 30, 2011

† Average across sample period

is the portfolio return of high book-to-market equity firms minus that of low book-to-market ones. Firm i 's normal return on day t , denoted by \hat{r}_{it} , is the out-of-sample predicted return based on the estimated model for firm i using its stock returns from the one year immediately prior to that day, excluding any day in the event windows:

$$\hat{r}_{it} = r_t^f + \left[\hat{\alpha}_i + \hat{\gamma}_i(r_t^m - r_t^f) + \hat{\delta}_i SMB_t + \hat{\lambda}_i HML_t \right]$$

where $\hat{\alpha}_i$, $\hat{\gamma}_i$, $\hat{\delta}_i$ and $\hat{\lambda}_i$ are estimated using the most recent year of data for firm i before

day t . The abnormal return R_{it} is the actual return minus the predicted normal return:

$$R_{it} = r_{it} - \hat{r}_{it}$$

As my sample period spans almost a decade, using a rolling asset pricing model allows the firm-specific factor loading coefficients γ_i , δ_i and λ_i to change continuously over time. The two-step estimation approach adopted here has the advantage of being more flexible, as compared to a one-step strategy regressing stock returns on factors and dummy variables indicating the occurrence of events at the same time. Standard errors are calculated allowing shocks ϵ_{it} to be correlated within days across firms, and within 3-digit SIC industries across days (Cameron and Trivedi, 2005).

5 Results

5.1 Main Results

Estimated coefficients of day dummies are combined to give mean cumulative abnormal returns across days and events. Table 3 reports the cumulative abnormal returns on the event days and over two or three day event windows for each case as well as for three cases combined. For McConnell, over the 3 days of granting review, oral arguments, and the decision announcement, politically active firms on average have a cumulative abnormal return (CAR) of -0.27%, significant at the 10% level. The stock values of politically active firms are expected to react negatively to the McConnell events, as the decision upheld campaign finance regulations. Over the 6 event days marking the development of WRTL cases, politically active firms on average have a CAR of 0.41%, significant at the 5% level. Over the 5 event days marking the development of Citizens United, the average CAR is 1.01%, significant at the 1% level. I find similar patterns, with larger magnitudes, if I broaden the event window to the 3 days centered around each event. Combining three cases, with estimates for McConnell entering with the opposite sign as that decision upheld campaign finance restrictions, the mean CAR is 1.68% over the 14 event days and 2.21% over the 14 three-day event windows. These results suggest that relaxing legal constraints on political spending by corporations subsequently increases the stock value of firms that actively participate in the electoral process.

Table 3: Cumulative Abnormal Returns (%) around Key Developments of Cases: by Case and Combined

$[\tau_0, \tau_1]$	McConnell v. FEC	FEC v. WRTL	Citizens United v. FEC	Citizens United + WRTL - McConnell
	3 Events	6 Events	5 Events	14 Events
[0, 0]	-0.269*	0.408**	1.012***	1.689***
	(0.160)	(0.166)	(0.260)	(0.292)
[-1, +1]	-0.385	0.906***	1.029**	2.206***
	(0.293)	(0.303)	(0.422)	(0.581)
[-1, 0]	-0.412*	0.472**	1.166***	1.936***
	(0.225)	(0.236)	(0.371)	(0.415)
[0, +1]	-0.242	0.842***	0.875***	1.959***
	(0.222)	(0.253)	(0.301)	(0.463)
				4 Decisions only
				0.391
				(0.443)
				1.535**
				(0.775)
				0.719
				(0.661)
				1.207**
				(0.566)

Standard errors in the parentheses are clustered two-way, by day and by 3-digit SIC. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

The left two columns in Table 4 report the mean abnormal return over the 14 sample events (again with McConnell entering with an opposite sign) for each day in an eleven-day window centered around the event days. Let Day 0 be the event day. Only Day 0 and Day 2 have statistically significant abnormal returns across events at the 5% level. Day 0 has a positive average abnormal return of 1.69%, while Day 2 has a negative average abnormal return of -1.24%. The negative returns on Day 2 would invalidate our previous conclusions if we believe that investors takes 2 days to digest the event information and realize that deregulation in campaign finance is bad for business. However, this is not the case. The mean CAR from Day 0 through Day 2 after the four Court decisions is 0.95%, significant at 2% level. As reported in the bottom rows of middle two columns, the CAR across 14 events starting from Day 0 is always positive. Reported in the right two columns, CARs measured on an 11-day event window centered around Day 0 are large and positive at 1.93%, albeit imprecisely estimated. The abnormality on Day 2 is likely due to confounding factors, such as industry-wise shocks. In fact, the negative CAR on Day 2 is not robust to alternative measures of abnormal returns as detailed in the next section.

Table 4: Cumulative Abnormal Returns (%) around Key Supreme Court Developments of the Three Litigations

14 Events: Citizens United + WRTL - McConnell					
τ	$\sum_{e \in E} \beta_{e,\tau}$	$[\tau_0, \tau_1]$	$\sum_{\tau_0}^{\tau_1} \sum_{e \in E} \beta_{e,\tau}$	$[\tau_0, \tau_1]$	$\sum_{\tau_0}^{\tau_1} \sum_{e \in E} \beta_{e,\tau}$
-5	0.135 (0.580)	$[-5, 0]$	3.022*** (0.817)	-	-
-4	0.685 (0.489)	$[-4, 0]$	2.883*** (0.725)	-	-
-3	0.221 (0.478)	$[-3, 0]$	2.286*** (0.825)	-	-
-2	0.130 (0.477)	$[-2, 0]$	2.066*** (0.497)	-	-
-1	0.247 (0.403)	$[-1, 0]$	1.936*** (0.415)	-	-
0	1.689*** (0.292)	$[0, 0]$	1.689*** (0.292)	$[0, 0]$	1.689*** (0.292)
+1	0.270 (0.404)	$[0, +1]$	1.959*** (0.463)	$[-1, +1]$	2.206*** (0.581)
+2	-1.240*** (0.460)	$[0, +2]$	0.719 (0.779)	$[-2, +2]$	1.405 (0.965)
+3	-0.098 (0.401)	$[0, +3]$	0.621 (0.738)	$[-3, +3]$	1.138 (1.310)
+4	-0.563 (0.789)	$[0, +4]$	0.208 (0.730)	$[-4, +4]$	1.322 (0.853)
+5	0.817* (0.474)	$[0, +5]$	0.676 (0.896)	$[-5, +5]$	1.929 (1.183)

Standard errors in the parentheses are clustered two-way, by day and by 3-digit SIC.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

The market seems to be quick in reacting to new information. From the left column of Table 4, the average abnormal return on Day 1 is positive but modest and insignificant. The CARs over windows ending on the event day are all positive and significant, while the CARs over windows starting on the event day become imprecise after Day 1. The mean abnormal returns for each individual day from Day -5 to Day -1 are all positive. However, these returns are not significant, whether individually or combined. Hence, there is at best limited evidence of systematical information leaks before the event day. However, this may not be the case for the decision announcement of Citizens United. On January 20, 2010, at the end of the Wednesday regular morning sessions of oral argument, the Court announced that there was going to be a special session starting at 10AM the next day to issue one or more decisions of cases previously heard. Longtime Supreme Court reporter Lyle Denniston, as well as reporters from *The Washington Post* and *The New York Times*, blogged about this unusual move on that day. As it had been more than one and a half year since Citizens United was initially filed with the Supreme Court, observers expected the special session to include the long-awaited decision of Citizens United. Moreover, there was speculation that the decision was going to be controversial. This speculation was, of course, correct. Justice Stevens, 89 years old, labored for an unusually long 20 minutes to announce his dissent. Figure A1 shows that on the decision day, the volume of Google searches for “Citizens United” jumped from virtually zero to four times as high as average daily search volume in January 2010, then peaked at one day after the announcement of the decision. The sudden hike of search volume suggests that the public did not anticipate the decision of Citizens United. The Wall Street Journal reported the decision of Citizens United at the top of its front page. The average abnormal return for politically active firms on this day was 0.39%, significant at the 5% level.

Table 5 reports the CARs by type of event. As mentioned, stock returns around both review granting and (initial) oral arguments react in the same way as they do around the decisions. Ordering re-argument and the proceeding of re-argument are associated with negative CARs. In retrospect, the re-argument order has been seen as an invitation by the Court majority to challenge the facial validity of the BCRA. But ex ante, it was arguably unclear whether it was possible for the Court to overrule McConnell and Austin. However, this discussion may be moot, as the negative CRA associated with re-argument events is not robust to alternative measures of abnormal returns considered in the next section. The combined CARs by day and by event window starting from Day -5 are plotted in Figure 4 and Figure 5 respectively.

Table 5: Cumulative Abnormal Returns around Key Developments of Cases: by Development Type and Combined Citizens United + WRTL - McConnell

$[\tau_0, \tau_1]$	Citizens United + WRTL - McConnell			
	All Combined	Granting Review	Oral Argument	Re-argument
	14 Events	4 Events	4 Events	2 Events
$[0, 0]$	1.689*** (0.292)	0.534*** (0.208)	0.840** (0.344)	-0.076 (0.213)
$[-1, +1]$	2.206*** (0.581)	0.754 (0.496)	0.799** (0.355)	-1.328* (0.694)
$[-1, 0]$	1.936*** (0.415)	0.964*** (0.287)	1.409*** (0.326)	-1.042** (0.421)
$[0, +1]$	1.959*** (0.463)	0.325 (0.403)	0.230 (0.345)	-0.362 (0.473)
				0.391 (0.443) 1.535** (0.775) 0.719 (0.661) 1.207** (0.566)

Standard errors in the parentheses are clustered two-way, by day and by 3-digit SIC. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Figure 4: Combined Cumulative Abnormal Returns: By Day

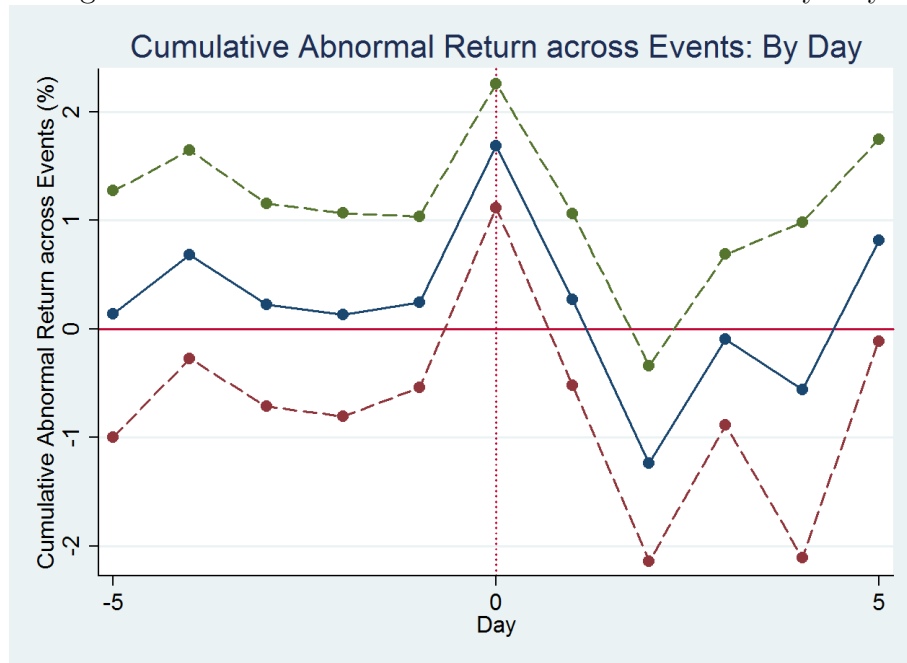
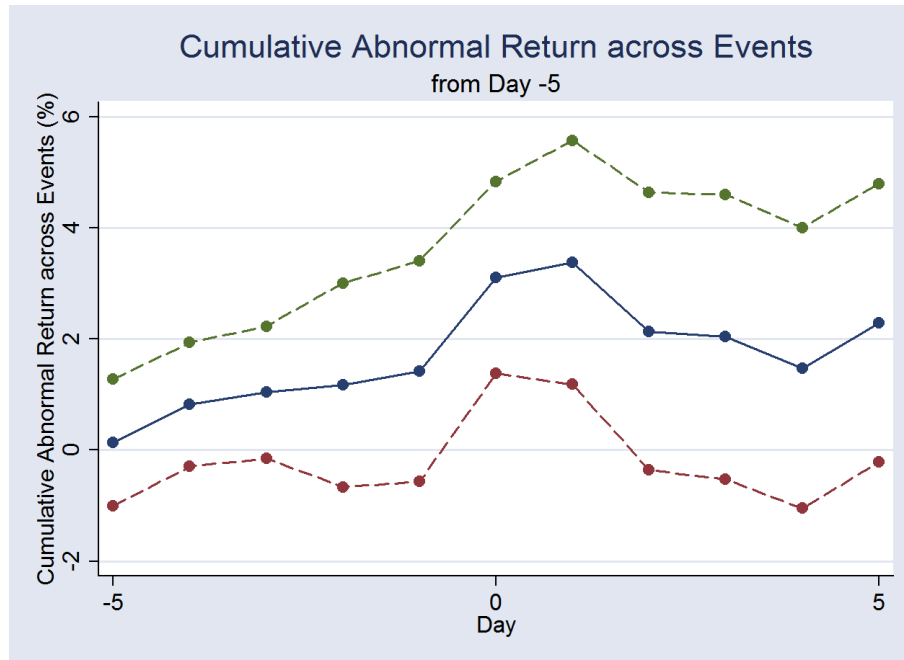


Figure 5: Combined Cumulative Abnormal Returns: Event Windows from Day -5



Notes: Dash lines indicate 95% confidence intervals.

5.2 Robustness Checks

The main finding that long-time contributors on average gain from a loosened regulation of campaign finance is robust to (i) using alternative measures of abnormal returns and/or a subsample of firms also contributing in all three election cycles before BCRA; (ii) an alternative statistical test robust to having a small number of events; and (iii) methods that underweight observations with large abnormal returns, which could have driven false positive results. Moreover, the main finding is not driven by token contributors which fall in the bottom 10% in term of cumulative amounts of contributions.

The use of subsample in (i) is motivated by the concern that BCRA may induce entry and/or exit in campaign contributions, which may have confounding effects. The uniform rank test (Dube et al., 2011) in (ii) addresses the concern that asymptotic based tests may perform poorly when the number of events is small. The qualitatively similar results from weighted least squares, least absolute deviation, tails-trimmed samples suggest that more than a small set of firms in my sample drive the main finding.

Ansola-behere et al. (2004) find no negative impact of campaign regulation for soft money donors. In contrast, I find that hard money contributors gain from the loosening of BCRA regulation. These results seem to conflict. This is not due to the difference between soft and hard money donors, but rather to a larger set of judicial events and to the methodological approach used to calculate abnormal returns. When I apply a three-factor model to calculate abnormal returns and use the five BCRA events studied by Ansola-behere et al. (2004), I find a negative impact of campaign regulation for a sample of large soft money contributors. This is consistent with my main finding that campaign finance deregulation increases the stock value of contributors.

Moreover, the negative impact is mainly driven by the judicial events of McConnell, rather than the congressional and executive actions. A 5-4 decision such as McConnell was probably less anticipated than the congressional and executive actions. Therefore, judicial events provide a better measure on how campaign finance regulation affects firm value.

The robustness checks and sensitivity analysis summarized in the section are detailed in Appendix A.

6 Which Firms Gain More from Deregulation of Corporate Political Spending?

While my main results do not appear to be driven by outlier firms, it is likely that some firms will benefit more from loosened campaign finance law than others. In the remainder of this section, I discuss several plausible sources of heterogeneity.

6.1 Firms with Low Growth Prospect

The first characteristic relates to the growth prospects of a firm. Sunset industries are known to be more successful than others in tilting policy in their favor. Baldwin and Robert-Nicoud (2007) argue that, for sunset industries, rents generated by lobbying are not eroded by new firms. Firms in sunset industries incurred a sunk fixed investment in the past. While their assets may be costly to replace, they are expected to generate limited cash flows in the future. For these industries, the fair value of assets calculated from discounted expected cash flows is low relative to their replacement cost. As long as rents from lobbying are not too high, they induce no entry and incumbents can therefore enjoy all the rents. This is not true for growing industries. In these industries, capital stocks are expanding, adjustments to capital stocks are frequent, and the replacement value of assets should be close to fair value. Higher rents could induce new firm entry, which in turn would dissipate rents.

Consistent with this argument, I find that firms with low profit margins, low net capital expenditures, and high book-to-market ratios of equity have higher abnormal returns on event days loosening campaign finance laws. I pool the abnormal returns over the 14 event days and regress them on these three proxies of growth prospects (or lack thereof). Event dummy variables are also included in the regression. Table 6 reports the univariate and multivariate regression results. (See Online Appendix B.2 for details and discussion)

Table 6: Growth Prospects and Abnormal Returns on Event Days

Dependent Var.	Daily FF-3 Abnormal Returns of Contributing Firms (Negative of AR for <i>McConnell v. FEC</i> Event Days)			
	Coeff./ (S.E.)	Coeff./ (S.E.)	Coeff./ (S.E.)	Coeff./ (S.E.)
Profit Margin	-0.496** (0.222)			-0.313 (0.261)
Book-to-Market Assets		0.431*** (0.146)		0.355** (0.149)
<u>Net Capital Expenditure</u> <u>Total Revenue</u>			-1.379** (0.570)	-1.437** (0.575)
Summary Statistics of Explanatory Variables:				
Mean	0.200	0.728	0.019	
Median	0.182	0.754	0.002	
Standard Deviation	0.245	0.457	0.062	
Interquartile range	0.178	0.384	0.034	
F.E.	Event	Event	Event	Event
S.E. Method	Cluster by Firm	Cluster by Firm	Cluster by Firm	Cluster by Firm
R-Squared	0.006	0.007	0.006	0.008
# Observations	5464	5467	5303	5069

The specification is: $AR_{it} = \alpha + \beta G_{it} + \delta_t + \epsilon_{it}$, where the dependent variables, AR_{it} , are abnormal returns of firm i in event t from a rolling Fama-French three-factor model, in percentage;

δ_t is an event fixed effect; and G_{it} is one or all of the following measures of growth prospects:

Profit Margin is earnings before interest, taxes, depreciation and amortization divided by total revenue in the latest fiscal year;

Book-to-market Assets is the ratio of total book assets divided by total market value of a firm, i.e. the market equity value plus total liability;

Net capital expenditure is total capital expenditure subtracted by depreciations in the latest fiscal year;

Financial ratios are trimmed at 1% on either tail of their distributions.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

6.2 Firms in Industries with Dispersed Employment

Abnormal return on event days are also correlated with the concentration of an industry's employment across states. Conditional on overall employment, industries whose employment is concentrated in a few states are likely to have more influence on legislators, even without resorting to campaign contributions or auxiliary electoral spending. Re-election concerns alone would motivate congressional delegates from states with a large number of voters employed by a particular industry to promote bills in favor of the industry and block bills detrimental to the industry. Cohen et al. (2013) find that senators' votes on bills pertaining to large industries in their states predict subsequent stock performance of these industries, which suggests that senators possess superior information regarding the impact of bills on industries in their states and vote in line with the interest of such industries. Whether lobbying is considered as information transmission as in Grossman and Helpman (2001), or as subsidizing legislative effort to friendly legislators as in Hall and Deardorff (2006), it seems likely that industries whose employments is concentrated in just a few states are better positioned to lobby than industries where employment is geographically dispersed.

To the extent that money could partially make up for an industry's lack of effective representation in Congress, loosening campaign finance regulation could be especially beneficial to industries with employment scattered across states (Bombardini and Trebbi, 2011). To measure the geographical concentration of an industry's employment across states, I construct three proxies. They are Herfindahl index, concentration Index, and the log one plus the number of states in which an industry is a top 5 employer (see table footnote or Online Appendix B.3 for construction of the indices).

As reported in Table7, geographic concentration of employment tends to reduce the abnormal returns resulting from campaign finance deregulation. A one standard deviation increase in either of the two concentration indices lowers the abnormal returns by about 0.06 percentage point on each event day, implying an overall decline in the CAR across 14 events of 0.8 percentage point, which is substantial when compared to the average baseline CAR (1.689 percentage points).⁵ The number of states in which an industry is a top 5 employer also is negatively related to abnormal returns around event days, though with weaker statistical power and a smaller effect. Hence, industries with disperse employments across states tend to benefit more from loosening regulation on political spending (see Online Appendix B.3 for more details).

⁵Again, abnormal returns on event days related to McConnell enter in opposite sign.

Table 7: Industrial Employment Concentration Across States and Abnormal Returns

Dependent Variable:	Daily FF-3 Abnormal Returns of Contributing Firms (Negative of AR for <i>McConnell v. FEC</i> Event Days)		
	Coeff./S.E.	Coeff./S.E.	Coeff./S.E.
Herfindahl Index	-0.981** (0.384)		
Concentration Index		-0.891** (0.351)	
$\log(1 + \#Top5)$			-0.012* (0.007)
Industry's Share of National Employment	-3.431* (2.071)	-1.941 (2.054)	5.843 (4.536)
# Obs.	5718	5718	5718
S.E. method	Cluster by firm	Cluster by firm	Cluster by firm
F.E.	Event	Event	Event

The specification is: $AR_{it} = \alpha + \beta C_{it} + \delta_t + \epsilon_{it}$, where AR_{it} is the abnormal return of firm i in event t ; δ_t is a event fixed effect; and C_{it} is one of the employment concentration measures defined below:

Let e_{ij} be employment of industry i 's employment in state j ,

$$\text{Herfindahl Index} = \left(\frac{e_{ij}}{\sum_j e_{ij}} \right)^2$$

$$\text{Concentration Index} = \sum_j \left(\frac{e_{ij}}{\sum_i e_{ij}} - \frac{\sum_j e_{ij}}{\sum_i \sum_j e_{ij}} \right)^2$$

$\log(1 + \#Top5) = \log(1 + \text{No. of States in which industry } i \text{ is top 5 industry by employment})$

Constants are included but not reported.

Industries are at 3-digit of NACIS. Dependent variable is measured in percentage point.

One standard deviation of Herfindahl and Concentration index are 0.064 and 0.074 respectively.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

6.3 Do Positive Returns Correlate with Amounts Previously Given?

While I find that long-time contributors on average benefit from deregulation of corporate political spending, and that small contributors within the bottom 10% of cumulative contributions only experienced a small and insignificant average abnormal return of 0.37%, I do not find evidence that contribution intensity or lobbying intensity predicts abnormal returns on the event days. In unreported results, I find that the log amounts of cumulative contribution and log lobbying expenditure insignificantly correlate with the abnormal returns of contributing firms on event days. One explanation is that since idiosyncratic shocks to stock prices and the heterogeneity of responses are large, my tests lack statistical power. Another explanation is that contribution and lobbying intensity need not monotonically correlate with gains from deregulation of political spending. Lobbying firms may already enjoy good access due to past campaign contributions or other connections such as constituent interests. These advantageous firms may not benefit most from relaxing legal constraints on political spending.

7 Do Campaign Finance Decision Affect the Overall Market?

One rationale for campaign finance regulation is to restrict unfair influence by big corporations with a vast amount of money. Without restrictions on political spending, large corporations, individually and as a group, may exercise undue influence on the electoral process to obtain policies biased toward them. On the other hand, the benefits of a pro-big-business policy environment may not be limited to politically active firms as defined here.

There is some support in the data for the idea that some politically inactive firms may benefit from loosening campaign finance restrictions. On days with developments leading to campaign finance deregulation, firms with small market capitalization perform poorly relative to firms with large market capitalization. The upper panel of Table 8 reports cumulative returns of the small-minus-big (SMB) Fama-French factor over the 14 case events, again with McConnell returns entering with an opposite sign. The Fama-French SMB factor, which is the return differential between value-weighted portfolios of firms below and above median market capitalization, has a cumulative return of -4.12% over the 14 event days, with a p -value of 0.071 from a uniform rank test analogous to previous

one. However, this result loses its statistical significance if a wider event window is used.

With campaign finance deregulation, firms whose prices suggest lower growth prospects (i.e. value firms), also perform well relative to growth firms. The high-minus-low (HML) Fama-French factor is defined as the return differential between value weighted portfolios of firms with top third and bottom third book-to-market equity ratio. The HML over the 14 event days is 1.48%, with a p -value of 0.059 from a uniform rank test. This is consistent with previous evidence that firms in sunset industries benefit more from loosened campaign finance regulation. These results suggest that on top of any aggregate impact of the loosened campaign finance regulations, contributing firms with low growth prospects gain more. Finally, Table 8 also reports the cumulative overall market return across events. There is no evidence that campaign finance deregulation is associated with higher stock values for all listed firms in the United States.

The above relationships are confirmed by estimates from the following model

$$r_{qt} - r_t^f = \alpha_i + \beta_q(r_t^m - r_t^f) + \gamma(D_t \times q) + \epsilon_{qt}$$

where $q = 1, 2, \dots, 5$ indicate valued-weighted portfolios formed by sorting firms into quintiles by market capitalization or book-to-market equity ratio, with $q = 1$ being the portfolio of smallest firms by market capitalization or firms with the lowest book-to-market ratio and $q = 5$ being the portfolio of the largest firms or firms with the highest book-to-market ratio; r_{it} is the raw return of portfolio i on day t ; r_t^f is the risk-free 90-day treasury bill return on day t ; r_t^m is the market return; and D_t is a variable indicating whether day t is in an event window associated with relaxing campaign finance restrictions ($D_t = 1$), maintaining restrictions ($D_t = -1$) or otherwise ($D_t = 0$).

Using data from Kenneth French's website, in which constituent firms of various portfolios are updated regularly, the lower panel of Table 8 reports the estimates of γ for various event windows. Focusing on a one-day event window, which should be less noisy, smaller and high-growth firms have lower returns in reaction to campaign finance deregulation. Firms in one lower (smaller) quintile on average have 0.093% lower returns on days with campaign finance deregulation. The fourteen events together imply a cumulative return that is lower by 1.30%. Similarly, the fourteen events together imply that firms with the lowest book-to-market equity ratio, i.e. firms priced with the highest growth prospects, have a cumulative return 3.36 percentage points lower than firms priced with the lowest growth prospects.

Table 8: Implications of Campaign Finance Deregulations for Board Market

14 Events: Citizens United + WRTL - McConnell						
Cumulative Returns of Fama-French Factors and Uniform Rank Test						
Market Return (CRSP All Firms Portfolio)		Small-minus-Big (Market Capitalization)		High-minus-Low (Book-to-market Equity Ratio)		
$[\tau_0, \tau_1]$	% p -value (neg. effect)	% p -value (neg. effect)	% p -value (neg. effect)	% p -value (pos. effect)		
$[0, 0]$	-7.025	0.165	-4.120*	0.071	1.480*	0.059
$[-1, +1]$	-0.538	0.262	1.160	0.552	6.240*	0.062
$[-1, 0]$	3.873	0.588	-2.090	0.250	5.900**	0.012
$[0, +1]$	-11.438*	0.088	-0.870	0.236	1.820	0.198

Average Returns of Portfolio by Size and Book-to-Market Equity Ratio around Events: Coefficients of Interactions between Event Indicator and Quintile Number				
Size Quintile		Book-to-Market Quintile		
Smallest (QU1) to Largest (QU5)		Growth (QU1) to Value (QU5)		
$[\tau_0, \tau_1]$	Coeff. (S.E.) p -value	Coeff. (S.E.) p -value		
$[0, 0]$	0.093** (0.042)	0.027 (0.007)	0.060*** (0.007)	0.000
$[-1, +1]$	0.004 (0.028)	0.875 (0.004)	0.027*** (0.004)	0.000
$[-1, 0]$	0.036 (0.031)	0.238 (0.001)	0.037*** (0.001)	0.000
$[0, +1]$	-0.015 (0.031)	0.626 (0.003)	-0.004 (0.003)	0.238

p -values in the upper panel are from one-side uniform rank tests;

In the lower panel, standard errors in the parentheses are clustered two-way, by day and by quintile.

Quantile-specific intercepts and quantile-specific reaction to market excess returns are included but not reported.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

8 Conclusion

In this paper, I document that the stock value of firms with a history of contributing to congressional candidates reacts positively to court-ordered deregulations of political spending.

In *McConnell v. FEC*, the Supreme Court upheld most provisions in the Bipartisan Campaign Reform Act of 2002, which regulated soft money contributions and independent expenditures on issue ads for electoral advocacy. Around the days when the Supreme Court granted review, heard oral arguments, and announced the decision the stock value of these firms decreased by 0.27% on average. In *FEC v. Wisconsin Right to Life* and *Citizens United v. FEC*, the Supreme Court weakened and struck down provisions on independent expenditures. Around the key developments of the two cases, contributing firms experienced a 1.5% increase in their stock value on average. These results suggest that firms benefit from their engagements in the electoral processes, and that politically active firms benefit from loosening constraints on their political spending. Campaign finance regulations are, to some extent, able to limit the influence of interest groups through political spending.

Moreover, the stock market as a whole did not react positively to these deregulations. Firms with dimmer growth prospects benefited more from the deregulation of political spending. This is consistent with the argument that sunset industries are more successful in lobbying because lobbied rents would not be dissipated by entry of new firms. Overall, I find no evidence supporting the argument that, by fostering a competitive marketplace of ideas, deregulation of political spending by corporations improves political processes toward more economically efficient policies.

References

- [1] Austen-Smith, David. 1995. "Campaign Contributions and Access," 89 *The American Political Science Review* 566–581.
- [2] Ansolabehere, Stephen, John M. de Figueiredo, and James M. Snyder Jr. 2003. "Why is There so Little Money in U.S. Politics?" 17 *Journal of Economic Perspectives* 105–130.
- [3] Ansolabehere, Stephen, James M. Snyder, Jr., and Michiko Ueda. 2004. "Did Firms Profit from Soft Money?" 3 *Election Law Journal* 69–84.
- [4] Baldwin, Richard E. and Frederic Robert-Nicoud. 2007. "Entry and Asymmetric Lobbying: Why Governments Pick Losers." 5 *Journal of European Economic Association* 1064–1093.
- [5] Bombardini, Matilde and Francesco Trebbi. 2011. "Votes or Money? Theory and Evidence from the US Congress," 95 *Journal of Public Economics* 587–611.
- [6] ———. 2012. "Competition and Political Organization: Together or Alone in Lobbying for Trade Policy?" 87 *Journal of International Economics* 18–26.
- [7] Briffault, Richard. 2008. "WRTL II: The Sharpest Turn in Campaign Finance's Long and Winding Road," 1 *Albany Government Law Review* 101–140.
- [8] Burns, Natasha and Jan Jindra. 2013. "Political Spending and Shareholder Wealth: The Effect of the U.S. Supreme Court Ruling in Citizens United," 42 *American Politics Research* 579–599.
- [9] Cameron, A. Colin and Pravin Trivedi. 2005. "Microeconometrics: Methods and Applications," New York: Cambridge University Press.
- [10] Campbell, John Y., Andrew W. Lo and A. Craig MacKinlay. 1997. "The Econometrics of Financial Markets," *Princeton University Press*.
- [11] Chamon, Marcos and Ethan Kaplan. 2013. "The Iceberg Theory of Campaign Contributions: Political Threats and Interest Group Behavior," 5 *American Economic Journal: Economic Policy* 1–31.
- [12] De Figueiredo, John M. and Brian S. Silverman. 2006. "Academic Earmarks and The Returns to Lobbying," 49 *Journal of Law and Economics* 597–625.

- [13] Cohen, Lauren, Karl B. Diether and Christopher Malloy. 2013. "Legislating Stock Prices," 110 *Journal of Financial Economics* 574–595.
- [14] Drazen, Allan, Nuno Limão and Thomas Stratmann. 2007. "Political Contribution Caps and Lobby Formation: Theory and Evidence," 91 *Journal of Public Economics* 723–754.
- [15] Dube, Arindrajit, Suresh Naidu and Ethan Kaplan. 2011. "Coups, Corporations, and Classified Information," 126 *The Quarterly Journal of Economics* 1375–1409.
- [16] Epstein, Lee, William M. Landes and Richard A. Posner. 2009. "Inferring the Winning Party in the Supreme Court from the Pattern of Questioning at Oral Argument," University of Chicago Law and Economics, Olin Working Paper No. 466.
- [17] Facchini, Giovanni, Anna Maria Maydac and Prachi Mishra. 2011. "Do Interest Groups Affect US Immigration Policy?" 85 *Journal of International Economics* 114–128.
- [18] Fama, Eugene and Kenneth R. French. 1992., "The Cross-Section of Expected Stock Returns," 47 *Journal of Finance* 427–465.
- [19] ———. 1993. "Common Risk Factors in the Returns on Stocks and Bonds," 33 *Journal of Financial Economics* 3–56.
- [20] Grossman, Gene M. and Elhanan Helpman. 2001. *Special Interest Politics*, The MIT Press.
- [21] Hall, Richard L. and Alan V. Deardorff. 2006. "Lobbying as Legislative Subsidy," 100 *The American Political Science Review* 69–84.
- [22] Iaryczower, Matias and Matthew Shum. 2012. "The Value of Information in the Court: Get it Right, Keep it Tight," 102 *American Economic Review* 202–237.
- [23] Jayachandran, Seema. 2006. "The Jeffords Effect", 49 *Journal of Law and Economics* 397–425.
- [24] Johnson, Timothy R., Ryan C. Black, Jerry Goldman and Sarah Treul. 2009. "Inquiring Minds Want to Know: Do Justices Tip Their Hands with Questions at Oral Argument in the U.S. Supreme Court?" 29 *Washington University Journal of Law and Policy* 241–261.

- [25] Levitt, Justin. 2010. "Confronting the Impact of Citizens United," 29 *Yale Law and Policy Review* 217–234.
- [26] Mian, Atif, Amit Sufi and Francesco Trebbi. 2013. "The Political Economy of the Subprime Mortgage Credit Expansion," 8 *Quarterly Journal of Political Science* 373–408.
- [27] Milyo, Jeffrey, David Primo and Timothy Groseclose. 2000. "Corporate PAC Campaign Contributions in Perspective," 2 *Business and Politics* 75–88.
- [28] Persily, Nathaniel. 2010. "Citizens United: A Preview to a Post-Mortem", Retrieved January 20th, 2012, from http://balkin.blogspot.com/2010/01/citizens-united-preview-to-post-mortem_21.html
- [29] Skaife, A. Hollis and Timothy Werner. 2014. "Deregulation of Firm Investments under Citizens United and Firm Value," Working Paper.
- [30] Stern, Seth and Stephen Wermiel. 2010. "Justice Brennan: Liberal Champion," Houghton Mifflin Harcourt Publishing Company, New York.
- [31] Shullman, Sarah Levien. 2004. "The Illusion Of Devil's Advocacy: How The Justices Of The Supreme Court Foreshadow Their Decisions During Oral Argument." 6 *Journal of Appellate Practice and Process* 271–294.
- [32] Toobin, Jeffrey. 2007. "The Nine: Inside the Secret World of the Supreme Court," Doubleday.
- [33] Werner, Timothy. 2011. "The Sound, the Fury, and the Nonevent: Business Power and Market Reactions to the Citizens United Decision," 39 *American Politics Research* 118-141.

Appendix

A Robustness Checks

A.1 Alternative Measures of Stock Returns and Sub-sample of Firms

This section provides results using alternative ways of measuring abnormal returns. First, I start with a simple measure of abnormal returns, namely returns in excess of the return of a market portfolio. Second, I augment a Fama-French three-factor model with an extra factor, the return of an industry portfolio. The industry portfolio is a value weighted portfolio of firms that never contributed in the three election cycles from 2003 to 2008, within the same 3-digit Standard Industry Classification (SIC) of a contributing firm. This measure controls for industry-wide shocks, which may confound our baseline results. Third, I measure the abnormal return as the firm's raw return minus the return of the industry portfolio constructed above. Finally, I measure the abnormal return as the raw return of the contributing firm in excess of a matched non-contributing firm. The matching firm is selected from a set of firms which (i) never contributed in the six election cycles from 1997 to 2008; and (ii) fall within the same 3-digit SIC industry of the contributing firm. Following Dube et al. (2011), contributing firm i is matched to the non-contributing firm m within the firm's 3-digit SIC that minimizes the Mahalanobis distance between the two firms:

$$\arg \min_{m \in SIC3(i)} \left\{ \sqrt{(d_i - d_m)' V^{-1} (d_i - d_m)} \right\}$$

where d_i and d_m are vectors of measures for firm i and firm m respectively. The vector d includes the mean and standard deviation of daily returns, average daily market capitalization, and factor loading betas from a Fama-French three-factor model.⁶ V is the diagonal matrix of the variance-covariance matrix of the above estimated measures in the corresponding (monthly) matching period.

Drazen et al. (2007) argue that a moderate contribution cap may improve the bargaining position of special interest groups vis-à-vis politicians. The resulting higher rents,

⁶Estimates of factor loading coefficients are updated monthly for each firm, again estimated using data within one calendar year immediate before, excluding any event window studied here; Mean and standard deviation of daily returns, and average daily market capitalization are also updated monthly.

in turn, induce entry to the lobbying process. They find evidence of cap-induced entry of PACs at the state level. To minimize the potentially confounding effect of endogenous entry, I re-do the previous analysis using a subsample of firms that also contributed in all three of the election cycles before the BCRA came into effect.

Table A1 reports results from the above robustness tests. The upper panel uses the baseline sample of firms contributing to all three election cycles from 2003 to 2008. The lower panel uses a sample of firms contributing to all six election cycles from 1997 to 2008. As compared to baseline results (reported in the first column in the upper panel), results using alternative measures of abnormal returns and/or the sub-sample of firms are qualitatively unchanged. For the larger sample, the average cumulative return in excess of market returns over the 14 event days is negative but imprecisely estimated. However, the average cumulative return in excess of market returns over a three-day window is positive and significant at 3.8%, larger than the baseline result. The negative estimated average cumulative return in excess of market on event days is due to two events, granting review and oral arguments of Citizens United. Both of these events took place during a period of elevated financial turbulence due to the sub-prime mortgage crisis. In the 6 months starting from October 1st, 2008, the stock market lost more than one third of its value. On these 2 event days, the S&P 500 index fell by 2% and 4% respectively. This makes it particularly important to control in a flexible way for the risk factors contributing to stock movements. Taking out these two events, the average cumulative return in excess of market returns is positive. This is because the return in excess of market return, $r_{it} - r_{mt}$, effectively imposes a β of one across all firms, while other columns allow for β to vary by firm and over time. Other specifications allowing for flexible control of risk factors report positive and significant abnormal returns for politically active firms. Moreover, controlling for industry returns, as reported in the last three columns of Table A1, slightly attenuate the cumulative abnormal returns. However, these CARs mostly remain statistically significant. Results are similarly robust for the subsample of firms contributing, both before and after BCRA.

Table A1: Alternative Measures of Cumulative Abnormal Returns

14 Events: Citizens United + WRTL - McConnell						
Firms Contributing in All Three Cycles from 2004 to 2008.						
$[\tau_0, \tau_1]$	Fama-French 3 Factors	Return in Excess of Market	Fama-French 3 & Industry	Return in Excess of Industry	Return in Excess of Matched	
$[0, 0]$	1.689*** (0.292)	-0.470 (0.384)	1.151*** (0.361)	1.518*** (0.539)	1.912*** (0.557)	
$[-1, +1]$	2.206*** (0.581)	3.801*** (0.756)	1.715*** (0.597)	1.720* (0.929)	0.678 (0.802)	
$[-1, 0]$	1.936*** (0.415)	2.057** (0.908)	1.203** (0.593)	1.090 (0.796)	1.622** (0.776)	
$[0, +1]$	1.959*** (0.463)	1.274* (0.683)	1.663*** (0.471)	2.148** (0.855)	0.968 (0.672)	
Firms Contributing in All Six Cycles from 1998 to 2008.						
$[\tau_0, \tau_1]$	Fama-French 3 Factors	Return in Excess of Market	Fama-French 3 & Industry	Return in Excess of Industry	Return in Excess of Matched	
$[0, 0]$	1.910*** (0.373)	0.382 (0.489)	1.518*** (0.424)	2.127*** (0.563)	2.317*** (0.844)	
$[-1, +1]$	2.028*** (0.656)	3.823*** (0.593)	1.422** (0.633)	1.321 (1.052)	0.838 (1.148)	
$[-1, 0]$	2.119*** (0.488)	2.596*** (0.715)	1.322** (0.588)	1.105 (0.829)	2.050* (1.116)	
$[0, +1]$	1.818*** (0.546)	1.610** (0.807)	1.618*** (0.534)	2.343** (0.954)	1.105 (0.909)	

Standard errors in the parentheses are clustered two-way, by day and by 3-digit SIC. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

A.2 Uniform Rank Test

Given that the number of events is small, a test based on large sample asymptotics may have a distorted test size due to the non-normality of the distribution of stock returns. Dube et al. (2011) propose a nonparametric small sample exact test that does not depend on asymptotic normality. The test, called the uniform rank test, utilizes the fact that the cumulative distribution function (CDF) of a random variable follows a uniform distribution over $[0, 1]$. The sum of M independently, identically, and uniformly distributed random variables with support $[0, 1]$, denoted by Q_M , has the following CDF:

$$F_{Q_M}(x) = \sum_{j=0}^M \left(\frac{(-1)^j (x-j)^M \mathbf{1}(x \geq j)}{j!(M-j)!} \right). \quad (1)$$

This provides a basis for a finite sample test free of distributional assumptions. To implement the test, I calculate the average daily abnormal return across the contributing firms over the sample period from November 6, 2002 to December 30, 2011. The average abnormal return for each event day is ranked against the average abnormal returns of other days outside of any 11-day event window to obtain a quantile statistic. The quantile statistic should be fairly precisely estimated because (i) for each day the number of contributing firms is large; (ii) there are 2158 days of abnormal returns for contributing firms outside of any event windows; and (iii) order statistics converge fast. Quantiles for each event, with those associated with McConnell replaced with their distance from one, are summed to generate a test statistic. Under the null hypothesis that abnormal returns have the same distribution on event and non-event days, this test statistic would be close to 7, the average sum of 14 uniformly distributed random variables over the unit interval. If the test statistic is sufficiently high, based on the one-tail p -value calculated according to Eq. (1), one can conclude that campaign finance deregulation is associated with significantly higher stock values. I construct similar quantiles and test statistics for average CARs over 2- and 3-day event windows. Table A2 reports the combined mean CARs of the 14 events using various measures of abnormal returns as well as the associated p -values from the uniform rank test, for both the full sample and the subsample of firms contributing in all six election cycles. Because the point estimates of CARs in Table A2 are simple averages of various measures CARs over the event windows, they slightly differ from those reported in Table A1, which are obtained from adding up estimated coefficients of dummy variables indicating event days. These results confirm the baseline results.

Table A2: Mean Cumulative Abnormal Returns and Uniform Rank Test

14 Events: Citizens United + WRTL - McConnell										
Firms Contributing in All Three Cycles from 2004 to 2008.										
$[\tau_0, \tau_1]$	Fama-French 3 Factors		Return in Excess of Market		Fama-French 3 & Industry		Return in Excess of Industry		Return in Excess of Matched	
	CAR(%)	p-value	CAR(%)	p-value	CAR(%)	p-value	CAR(%)	p-value	CAR(%)	p-value
$[0, 0]$	1.620***	0.006	-0.283	0.490	1.190**	0.016	1.473**	0.021	1.921**	0.023
$[-1, +1]$	2.116**	0.026	4.310**	0.015	1.796*	0.052	1.814	0.161	1.072	0.147
$[-1, 0]$	1.914**	0.050	2.379**	0.048	1.245	0.166	1.230	0.318	2.007	0.199
$[0, +1]$	1.823**	0.011	1.649	0.145	1.740**	0.012	2.058*	0.078	0.986*	0.071
Firms Contributing in All Three Cycles from 2004 to 2008.										
$[\tau_0, \tau_1]$	Fama-French 3 Factors		Return in Excess of Market		Fama-French 3 & Industry		Return in Excess of Industry		Return in Excess of Matched	
	CAR(%)	p-value	CAR(%)	p-value	CAR(%)	p-value	CAR(%)	p-value	CAR(%)	p-value
$[0, 0]$	1.845***	0.006	0.542	0.193	1.536***	0.007	2.055***	0.006	2.312**	0.010
$[-1, +1]$	1.990*	0.061	4.321***	0.009	1.464*	0.064	1.385	0.225	1.241*	0.087
$[-1, 0]$	2.146**	0.037	2.933**	0.014	1.348*	0.076	1.240	0.263	2.459*	0.078
$[0, +1]$	1.688**	0.024	1.930*	0.065	1.652**	0.013	2.199	0.114	1.094**	0.039

p-values are from one-side uniform rank tests; * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

A.3 Outliers

Results from simple averages of cumulative abnormal returns and associated non-parametric tests, as reported in Table A2, suggest that the main results are unlikely to be driven by outliers. However, if the main results are driven by a small set of firms benefiting extraordinarily from the deregulation of campaign finance, our baseline results are susceptible to an overly broad interpretation. To address this concern, I carry out various methods limiting the influence of stocks with extreme movements. First, I apply the least absolute deviation (LAD) method, which is robust to outliers. If the effects of multiple events on a median firm's stock value are additive, LAD estimates can also be interpreted as the combined effect on the median firm's stock value. Second, stocks whose prices are volatile over time are down weighted in least squares estimates. I apply the Weighted Least Square (WLS) method where weights are inversely proportional to the firm's standard deviation of abnormal returns through out the sample period. Third, stock returns that fall in either tail of the daily returns distribution are trimmed. As reported in Table A3, estimates using these alternative methods continue to yield positive and significant impacts of deregulation on stock prices, although the magnitudes are a bit smaller.

Table A3: Robustness to Outliers
14 Events: Citizens United + WRTL - McConnell

	Least Absolute Deviation	Weighted Least Squares	Both 1% Tails Trimmed, Daily	Both 5% Tails Trimmed, Daily	Both 10% Tails Trimmed, Daily
[0, 0]	0.869*** (0.266)	1.238*** (0.253)	1.425*** (0.315)	1.104*** (0.308)	0.923*** (0.199)
[-1, +1]	1.480*** (0.462)	2.322*** (0.396)	2.007*** (0.452)	1.746*** (0.382)	1.552*** (0.292)
[-1, 0]	0.967*** (0.376)	1.703*** (0.285)	1.683*** (0.279)	1.290*** (0.314)	1.002*** (0.240)
[0, +1]	1.382*** (0.376)	1.856*** (0.296)	1.750*** (0.424)	1.560*** (0.315)	1.473*** (0.216)

Dependent variables are abnormal returns from a rolling Fama-French three-factor model.

All estimates are based on the specification as reported in the first column of Table A1.

The first column contains Least Absolute Deviation estimates.

In the 2nd column, weights are the inverse of the firm's standard deviation of abnormal returns through out the sample period.

In the last three columns, $q\%$ on either tail of daily FF-3 abnormal returns are trimmed, $q\%$ being 1%, 5% and 10% respectively.

In the last four columns, standard errors in the parentheses are clustered two-way, by day and by 3-digit SIC.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

A.4 Heterogeneity in Soft Money Contribution, Lobbying Expenditure and Set of Events

In this section, I estimate the cumulative abnormal returns using different sets of firms and using either the 14 events studied in Table 5 in the main text or the five events studied by Ansolabehere et al. (2004). The method to calculate cumulative abnormal returns is the same as the method used in Table 5. For estimates combining 14 events, abnormal returns from McConnell events enter in opposite signs as McConnell events upheld legal constraints on corporate political spending. For estimates combining five Ansolabehere et al. (2004) events, which either imposed or upheld legal constraints on corporate political spending, abnormal returns enter the calculation of cumulative abnormal return as they are. This means that one would expect a negative sign if regulation of political spending reduces the stock value of the sample firms.

Table A4: Cumulative Abnormal Returns (CAR) - Varying Firm Sample and Events

Events	Firms	CAR
14 Supreme Court events	Moderate and large soft money Donors (Fortune 500)	2.515*** (0.231)
14 Supreme Court events	Large soft money Donors (Fortune 500)	2.243*** (0.418)
5 events in Ansolabehere et al. (2004)	Moderate and large soft money donors (Fortune 500)	-0.152 (0.109)
5 events in Ansolabehere et al. (2004)	Large soft money donors (Fortune 500)	-0.369** (0.170)
5 events in Ansolabehere et al. (2004)	Hard money contributors (2003-2008)	0.028 (0.090)
14 Supreme Court events	Hard money contributors (2003-2008), which were also soft money donors	1.946*** (0.159)
14 Supreme Court events	Hard money contributors (2003-2008), which also lobbied (2008-09)	0.900*** (0.241)
14 Supreme Court events	Hard money contributors (2003-2008), bottom 10% by cumulative amount	0.371 (0.706)

The five events analyzed Ansolabehere et al. (2004) are three BCRA legislative events, i.e. House passage, Senate passage and signing into law by President Bush, i.e. House passage, plus two Supreme Court events related to *McConnell v. FEC*, i.e. oral argument and decision announcement.

The “14 Supreme Court events” are those listed in Table 1 used in Table 5 in the main text.

Following Ansolabehere et al. (2004), moderate soft money donors are Fortune 500 companies who gave between \$10,000 and \$250,000 in the 2000 and 2002 election cycles; large soft money donors are Fortune 500 companies who gave at least \$250,000.

Hard money contributors (2003-2008) are firms who contributed to congressional candidates in all three election cycles from 2003 to 2008.

For estimates combining 14 events, abnormal returns from McConnell events enter in opposite signs.

For estimates combining the five events studied by Ansolabehere et al. (2004), abnormal returns enter with sign as they are.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Online Appendix

“Court-Ordered Campaign Finance Deregulation and Stock Value of Contributors” by Haishan Yuan

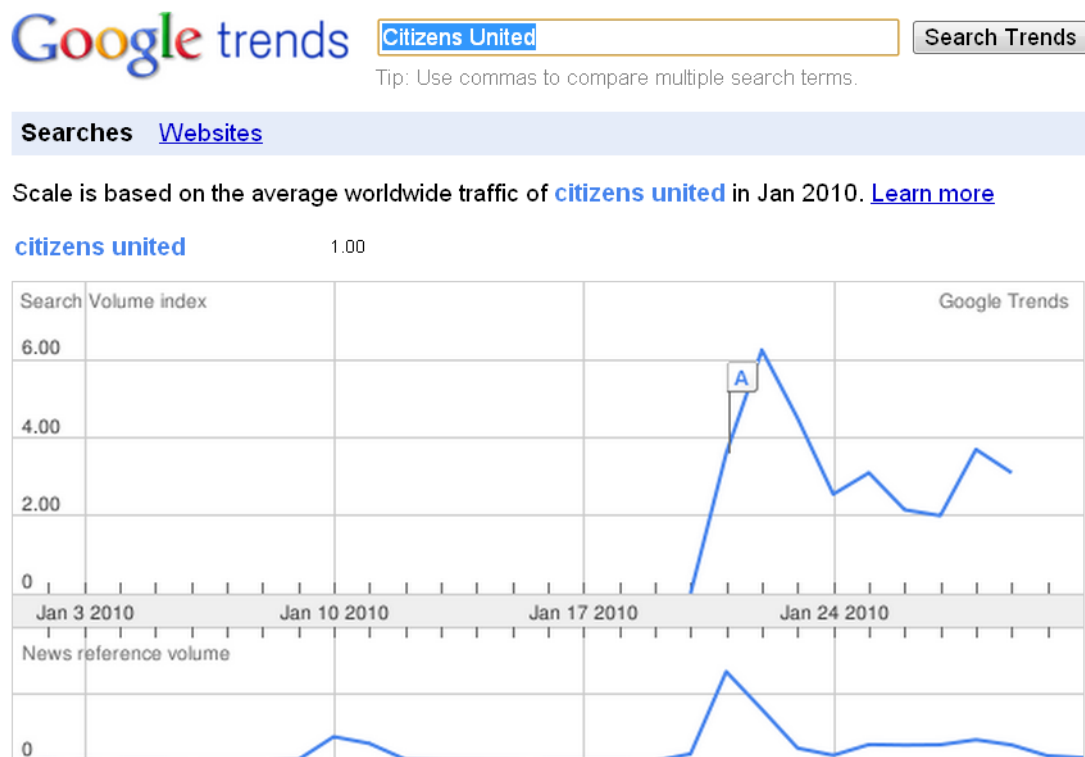
B Additional Figures, Tables and Discussion

B.1 Public Reaction to the Decision of Citizens United

Figure A1 shows that on the decision day, the volume of Google searches for “Citizens United” jumped from virtually zero to four times as high as average daily search volume in January 2010, then peaked at one day after the announcement of the decision. The sudden hike of search volume suggests that the public did not anticipate the decision of Citizens United.

Citizens United was a very unpopular decision. An ABC News/The Washington Post poll conducted in early February 2010 found that 80 percent of respondents opposed the Court’s decision, including 65% who strongly opposed it. Citizens United was the only decision announced that day. The Wall Street Journal reported the decision of Citizens United at the top of its front page.

Figure A1: Search and News Reference Volume of *Citizens United*



B.2 Heterogeneity in Growth Prospects of Firms

I find that firms with low profit margins, low net capital expenditures, and high book-to-market ratios of equity have higher abnormal returns on event days loosening campaign finance laws. I pool the abnormal returns over the 14 event days and regress them on these three proxies of growth prospects (or lack thereof). Event dummy variables are also included in the regression. Table 6 in the main text reports the univariate and multivariate regression results. Profit margin is defined as earnings before interest, taxes, depreciation, and amortization (EBITDA) divided by total revenue in the latest fiscal year. Net capital expenditure is the capital expenditure net of depreciation, normalized by total revenue in the latest fiscal year. The book-to-market ratio of assets measures the replacement value of total assets related to the market value of a firm (to creditors and equity holders). A higher value for this measure indicates that lower growth prospects are priced into a firm's value. Notice that a negative relationship between growth prospects and abnormal returns on event days is not likely due to risk factors common to all low growth firms, as I accounted for such factors in the Fama-French three-factor model used

to calculate abnormal returns.⁷

B.3 Heterogeneity in Concentration of Industrial Employment Across States

To measure the geographical concentration of an industry's employment, I construct three variables as follows. Let e_{ij} be employment of industry i 's employment in state j . Then I define:

$$\begin{aligned} \text{Herfindahl Index} &= \sum_j \left(\frac{e_{ij}}{\sum_j e_{ij}} \right)^2 \\ \text{Concentration Index} &= \sum_j \left(\frac{e_{ij}}{\sum_i e_{ij}} - \frac{\sum_j e_{ij}}{\sum_i \sum_j e_{ij}} \right)^2 \\ \log(1 + \#Top5) &= \log(1 + \text{Number of States in which industry } i \text{ is a top 5 employer}) \end{aligned}$$

The Herfindahl index is the sum of squared state shares of an industry's employment. The concentration index is the sum of squared deviations of an industry employment fraction in a state from its employment fraction nationally. The last measure is a log transformation of the number of states in which a firm's industry is a top 5 employer. Since the an industry's national employment is controlled for in the regression, this measures capture the concentration of an industry's employment.

As reported in Table7 in the main text, geographic concentration of employment tends to reduce the abnormal returns resulting from campaign finance deregulation. A one standard deviation increase in either of the two concentration indices lowers the abnormal returns by about 0.06 percentage point on each event day, implying an overall decline in the CAR across 14 events of 0.8 percentage point, which is substantial when compared to the average baseline CAR (1.689 percentage points).⁸ The number of states in which an industry is a top 5 employer also is negatively related to abnormal returns around event days, though with weaker statistical power and a smaller effect.

⁷In the baseline Fama-French three-factor model used in this paper, one risk factor is book-to-market equity. Regression using book-to-market equity instead of book-to-market assets provides even stronger statistical relationship between growth prospects and abnormal returns on event days.

⁸Again, abnormal returns on event days related to McConnell enter in opposite sign.