Citizens United: A Theoretical Evaluation*

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*T*he 2010 US Supreme Court's decision on Citizens United v. Federal Electoral Commission *lifted restrictions on the funding by unions and corporations of groups engaging in independent political advertising (outside spending). Many have criticized the majority opinion's premise that outside spending cannot corrupt or distort the electoral process. Fewer have examined the implications of this decision under the Court's assumptions. Using a game-theoretic model of electoral competition, we show that informative outside spending by a group whose policy preferences are partially aligned with the electorate may reduce voter welfare. This negative effect is more likely when policy information is highly valuable for the electorate or congruence between the group and voters is high. We further show that the regulatory environment produced by the Court's decision is always suboptimal: the electorate would be better off if either groups were allowed to coordinated with candidates or if outside spending was banned altogether.*

*I*n *Citizens Untied v. Federal Electoral Commission* (FEC) (2010), the US Supreme Court ruled that regulatory provisions limiting contributions from unions and corporations to groups engaging in outside spending (i.e., political advertising uncoordinated with candidates' committees) are unconstitutional.[1] To justify its decision, the majority argued that outside spending is a form of political speech, which cannot unduly influence the electoral process and is protected by the First Amendment.[2]

This ruling has been heavily criticized (e.g., Kirkpatrick 2010), and to this day remains highly controversial (e.g., FEC commissioner Ann Ravel's letter of resignation on February 19, 2017). Most critics claim that unrestricted outside spending will reduce, rather than improve, information available to the electorate. As Stevens wrote in his dissenting opinion, corporations' electioneering is likely to "drown out noncorporate voices, […] generate the impression that corporations dominate our democracy" (Citizens United v. FEC, Stevens dissenting, p. 81).

Few, however, have studied the consequences of facilitating outside spending *under the majority opinion's assumptions*. In this paper, we show that outside spending can reduce voter welfare even

[1] By outside spending, we mean independent expenditures (defined by the FEC as funding communication "expressly advocating the election or defeat of a clearly identified candidate that is not made in cooperation, consultation, or concert with, or at the request or suggestion of, a candidate, a candidate's authorized committee, or their agents, or a political party or its agents.") that qualify as "electioneering communication" (taking place 60 days prior to a general election). The current regulation on outside spending is a result of both *Citizens United v. FEC* and *SpeechNow.org v. FEC* (2010), with *Citizens United v. FEC* the key legal precedent.

[2] Specifically, the Court argued that the launch of an uncoordinated advertising campaign "presupposes that the people have the ultimate influence over elected officials," Citizens United v. FEC (majority opinion, p. 24). As such, "[t]he Government may not deprive the public of the right and privilege to determine for itself what speech and speakers are worthy of consideration" (Citizens United v. FEC, Majority Opinion, p. 44 and restricting the funding of outside spending "interfere[s] with the 'open marketplace' of ideas protected by the First Amendment" Citizens United v. FEC, Majority Opinion, p. 388).

if groups engaged in independent advertising (i) can only provide relevant information regarding candidates' proposals and (ii) are more likely than not to share the electorate's policy preferences. We further highlight that the negative consequences of *Citizens United* are more likely to arise when policy information is highly valuable and credible (congruence between the interest groups and electorate is high). Finally, we show that the regulatory environment produced by *Citizens United* is, under these very assumptions, always suboptimal: voters would be better off if either outside spending was banned or groups were allowed to coordinate with candidates.

Our paper joins a small game-theoretical literature examining the consequences of strategic third-party communication in electoral races. As such, it is distinct from the larger body of work studying direct contributions by special interests and from approaches predicated on the notion that electoral spending is primarily persuasive (e.g., Snyder 1989; Klumpp 2014). By focusing on informative spending, our work is closer to Grossman and Helpman (2001, Chapter 6), who show how candidates cater to an interest group that can educate voters *before* an election. Unlike their paper, our model focuses on a pure accountability framework (rather than on ideological differentiation) with *ex post* information provision, and their adverse effect on candidates' behavior.

Our paper is thus related to a literature highlighting how information provision can have unintended consequences in models of delegation. Our work, however, differs from previous contributions in one critical dimension. The literature has generally assumed that agents (politicians) are differentiated in their honesty (Coate and Morris 1995; Ely and Välimaki 2003), ability (Prat 2005; Ashworth and Shotts 2010; Fox and Van Weelden 2012; Wolton 2016), or policy preferences (Boleslavsky and Cotton 2015). *Ex post* information (either about agent's actions or about their consequences) then hurts the principal (electorate) because agents harmfully change their behavior to maintain a good reputation.[3] In contrast, in our set-up, candidates are identical and a strategic interest group only reveals policy relevant information to voters. As such, our results show that the welfare-reducing effect of additional information can arise even in the absence of reputation concern. So doing, we generate new predictions such as the negative correlation between the value or credibility of information and voter welfare.

THE MODEL

We consider a one-period model of electoral competition with four players: two candidates (1 and 2), one representative voter, and an interest group (i). To focus on the informative component of outside spending, our set-up does not incorporate ideological considerations. Candidate $j \in \{1, 2\}$ is office-motivated and commits either to a safe ($p_j = 0$) or a risky ($p_j = 1$) policy. While the safe policy provides a sure payoff of 0 to the voter, the impact of the risky policy depends on an underlying state of the world $\theta^v \in \{H, L\}$. When the risky policy is implemented, the voter obtains $1 + \Delta$, $\Delta > 0$ if the state of the world is high ($\theta^v = H$), and $1 - \Delta$ if $\theta^v = L$ (notice that Δ can be above 1). For example, the risky policy corresponds to securing subsidies for particular industries or to revitalize an abandoned industrial site. The economic benefits of such policy are uncertain: they are large in state $\theta^v = H$ and relatively low in state $\theta^v = L$. The parameter $\Delta > 0$ captures, in a reduced form, the policy risk associated with $p = 1$. Players do not know the state of the world θ^v.[4] However, it is common knowledge that the state θ^v is drawn from a uniform distribution: $\Pr(\theta^v = H) = 1/2$.

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[3] A similar result holds for the analysis of direct democracy (Prato and Strulovici 2016) or government–opposition interactions (Dewan and Hortala-Vallve 2016).

[4] In Supplemental Appendix B, we show that our results are substantively unchanged when candidates receives an informative signal of the state of the world.

The effect of the risky policy on the interest group i also depends on an underlying state $\theta^i \in \{h, l\}$, which is the group's private information. i's payoff from the risky policy equals 1 when $\theta^i = h$ and -1 otherwise. It is common knowledge that θ^i is also drawn from a uniform distribution (i.e., $\Pr(\theta^i = h) = 1/2$) that is correlated with θ^v. The degree of congruence between the voter and group i is captured by (and increasing in) the correlation parameter $\rho \in (0, 1)$ (see Potters and VanWinden 1992). We assume that the joint distribution of (θ^v, θ^i) takes the following form.[5]

θ^v / θ^i	h	l
H	$\frac{1+\rho}{4}$	$\frac{1-\rho}{4}$
L	$\frac{1-\rho}{4}$	$\frac{1+\rho}{4}$

The interest group can use outside spending to publicly endorse a policy platform. We denote by $a_i \in \{0, 1, \emptyset\}$ the group's advertising strategy, where $a_i = 1$ ($a_i = 0$) corresponds to the interest group endorsing the risky (safe) policy, and $a_i = \emptyset$ corresponds to no advertising. Advertising ($a_i \neq \emptyset$) is associated with a cost of raising funds $c > 0$ that depends on the regulatory environment. Under a ban on union and corporate funding of outside spending, we impose $c > 1$ (which guarantees that i never advertises). Absent a ban, we assume $c \in (0, 1)$.

The voter's payoff from candidate j depends on his platform choice p_j, the state θ^v, and a valence shock ϵ^j, $j \in \{1, 2\}$, which captures any additional payoff the voter might receive from candidate j's personal attributes or his expected actions on other policy dimensions. We assume that ϵ^j is drawn independently from a continuous cumulative distribution function (CDF) with support $[0, \bar{\epsilon}]$, that the difference $\epsilon := \epsilon^1 - \epsilon^2$ is distributed according to the CDF $F_\epsilon \sim [-\bar{\epsilon}, \bar{\epsilon}]$, with an associated probability density function $f_\epsilon(\cdot)$ which is symmetric around 0. To simplify the derivation of the results and rule out uninteresting cases, we also assume that the value of the preference shocks is not too large or too small: $\bar{\epsilon} \in (1-\rho\Delta, 1)$.[6] The voter's utility function when she elects j assumes the following form: $u^v(j) = p_j(1 + \Delta - 2\Delta I_{\{\theta^v = L\}}) + \epsilon^j$, where $I_{\{\theta^v = L\}} = 1$ if $\theta^v = L$.

A candidate gets 0 when he is not in office. When elected, he gets 1 and his payoff is reduced by an amount $k \in (0, 1)$ when he implements the risky policy. This cost corresponds to the political capital required to implement a policy initiative (Hall and Deardorff 2006). Candidate j's payoff if elected is then: $u^j(p_j) = 1 - kp_j$.

The interest group's payoff when candidate j is elected depends on his policy choice p_j as well as the state θ^i. If it engages in outside spending ($a_i \neq \emptyset$), the group also pays the cost c. Its utility function is then $u^i(a; \theta^i) = p_j(1 - 2I_{\{\theta^i = l\}}) - cI_{\{a \neq \emptyset\}}$.

To summarize, the timing of the game is as follows. (1) Nature draws $(\theta^v, \theta^i) \in \{H, L\} \times \{h, l\}$ and the valence shocks ϵ^1, ϵ^2. (2) The interest group observes θ^i. (3) Candidates choose a platform: $p_j \in \{0, 1\}$ $j \in \{1, 2\}$. (4) The voter and the interest group observe (p_1, p_2). The interest group chooses a policy endorsement $a_i \in \{0, 1, \emptyset\}$. (5) The voter observes i's endorsement and the valence shocks, and elects a candidate. (6) The elected candidate implements his platform, and payoffs are realized.

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[5] While immaterial for the derivation of our main results, the uniformity assumption allows us to parameterize the correlation between states in a simple way.

[6] The valence shock eliminates equilibria relying on peculiar belief structures by making the voter's indifference between the two candidates a zero-probability event. The simplifying role of the upper and lower bounds on $\bar{\epsilon}$ are discussed in greater details in Footnotes 9, 10, and 12.

Notice that the interest group intervenes *after* candidates' platform choices. This assumption (whose role is discussed in detail when we evaluate the current regulatory framework) captures the idea that the interest group cannot coordinate with candidates by directly influencing their platform choice.

The equilibrium concept is perfect Bayesian equilibrium, with two additional requirements. First, the assessment must satisfy the intuitive criterion (Cho and Kreps 1987).[7] Second, when multiple equilibria arise, we select the one associated with the highest expected payoff for the voter (henceforth, voter welfare).[8] In what follows, the term "equilibrium" refers to this class of equilibria.

EQUILIBRIUM WITH AND WITHOUT A BAN

We first determine candidates' equilibrium behavior under a ban on the funding of outside spending by corporations and unions. Let $a_i(\theta^i, p_1, p_2)$ denote the interest group's advocacy strategy as a function of the state θ^i and candidates' policy platforms. Under a ban ($c > 1$) the interest group never advertises (a_i is constant at $\emptyset$). As a result, i's behavior does not convey any additional information to the voter, who thus relies on her prior. Since the voter then prefers the risky policy, a candidate proposing the safe policy faces certain defeat when his opponent chooses $p = 1$. Both candidates thus converge to the risky policy.[9]

PROPOSITION 1: Under a ban, in equilibrium both candidates commit to the risky policy: $p_1 = p_2 = 1$.

We now study the equilibrium absent a ban. Let $\underline{\pi}$ be the probability that a candidate is elected when he campaigns on the safe policy, his opponent commits to the risky policy, and the voter learns that $\theta^i = l$. Simple computation yields $\underline{\pi} = F_\epsilon(\rho\Delta - 1)$.[10]

Outside spending only occurs when candidates choose different platforms (otherwise i cannot influence electoral outcomes): $\forall p \in \{0, 1\}$, $a_i(h, p, p) = a_i(l, p, p) = \emptyset$. Lemma 1 in the Appendix shows that when the cost of advertising satisfies $c < \underline{\pi}$ and there is a meaningful policy choice ($p_1 \neq p_2$), the interest group engages in outside spending and its endorsement ($a_i \neq \emptyset$) fully reveals θ^i to the voter.

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[7] Imposing the intuitive criterion guarantees that the voter always correctly interprets the group's endorsement. That is, for example, the voter places probability 1 on the group being type $\theta^i = h$ after endorsement $a \in \{0, 1\}$ if only a type $\theta^i = h$ has an incentive to send costly message a. As a consequence, it eliminates equilibria in which the group never advertises because the voter (unreasonably) believes that endorsement is uninformative even though, given the other players' strategy, only one of the two types $\theta^i \in \{h, l\}$ has an incentive (i.e. a payoff gain) to engage in costly advertising.

[8] This requirement helps eliminating equilibria in which both candidates always choose $p = 0$—which under a ban exist only for $k \geq 1/2$—and allows for a clear comparison across regimes.

[9] This follows directly from $\bar{\epsilon} < 1$. Absent this assumption, Proposition 1 would only hold for k below a certain threshold. This, however, would not affect the model's conclusions about the effect of lifting a ban; see Footnote 12.

[10] After learning $\theta^i = l$, the voter's posterior that $\theta^v = H$ is $\Pr(\theta^v = H | \theta^i = l) = (1 - \rho)/2$. Her expected payoff from the risky policy is then $1 + (1 - \rho)/(2)\Delta - (1 + \rho)/(2)\Delta = 1 - \rho\Delta$, and candidate 1 if he commits to the risky policy while 2 proposes $p = 0$ is elected if and only if $\epsilon^1 - \epsilon^2 \geq 1 - \rho\Delta$. The result follows by symmetry of $f_\epsilon(\epsilon)$. Absent our assumption $\bar{\epsilon} > 1 - \rho\Delta$, the group's endorsement would have no effect on the voter's electoral decision (i.e., a candidate proposing the safe policy always loses against a candidate committing to the risky policy) and the presence of a ban on outside spending would be inconsequential.

Intuitively, due to their commonality of interests, the interest group can always credibly transmit information to the voter. As a result, outside spending improves the voter's electoral decision. Whenever $\theta^i = l$, outside spending reduces the chances of electing the "wrong" candidate (whose commitment to the risky policy is either suboptimal or insufficient to compensate a large gap in valence).[11]

Having established that outside spending is beneficial *taking candidates' behavior as given*, we study how outside spending affects candidates' behavior, assuming $c < \underline{\pi}$ in what follows.

PROPOSITION 2: There exists $\overline{k}(\rho\Delta) \in [1-\underline{\pi}, 1)$, strictly decreasing in $\rho\Delta$, such that the equilibrium probability that a candidate commits to the risky policy absent a ban is strictly positive if and only if $k \leq \overline{k}(\rho\Delta)$.

Recall that under a ban on outside spending, a candidate wins the election with positive probability only if he commits to the risky policy. When the voter receives policy information through outside spending, this is no longer the case. Indeed, outside spending has an asymmetric effect on the electoral rewards associated with each platform choice. When $\theta^i = h$, the interest group's behavior does not affect the already high winning probability of a candidate committing to $p = 1$. In contrast, when $\theta^i = l$, outside spending strictly improves (from 0 to the strictly positive probability $\underline{\pi}$) the electoral chances of a candidate who chooses the safe policy against an opponent committing to the risky policy. This directly implies that a candidate only obtains a moderate electoral reward for proposing the risky policy even if his opponent proposes the safe policy. When the cost of implementing $p = 1$ satisfies $k > \overline{k}(\rho\Delta)$, this electoral reward is too low relative to the cost. The unique equilibrium then features both candidates offering $p = 0$.

Ironically, due to the lack of additional policy information, under a ban, the risky policy is the only electorally viable bet from the perspective of candidates when facing an opponent committing to $p = 1$. In contrast, when the voter receives information about the risky policy via outside spending, she can condition her electoral response to the group's endorsement. This, in turn, spills over into the candidates' incentives: proposing the safe policy while facing a 50/50 chance of being endorsed by the group becomes a viable electoral strategy.

Further, upon learning $\theta^i = l$, the voter's evaluation of the risky policy becomes more negative the higher the policy risk (Δ) or congruence with the interest group (ρ). As a result, the electoral benefit of committing to the risky policy for a candidate is decreasing in $\rho\Delta$, and so is the threshold $\overline{k}(\rho\Delta)$ for any candidate to propose $p = 1$.[12]

Despite the above result, one might suspect that whenever candidates have some electoral incentives to propose the risky policy absent a ban (i.e., $k \leq \overline{k}(\rho\Delta)$), outside spending increases

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[11] Under our equilibrium concept, i's advertising strategy is not uniquely pinned down. However, there exists an equilibrium in which i only incurs outside spending to endorse the safe policy when $\theta^i = l$ (i.e., $a_i(h, p_1, p_2) = \varnothing$ and $a_i(l, p_1, p_2) = 0$ $\forall p_1 \neq p_2$). This seems in line with recent evidence on outside spending being substantially issue based and aimed at reducing voter support for a given candidate (Dalton and McIlwain 2011; Brooks and Murov 2012).

[12] This result does not depend on the assumption that $\overline{e} < 1$. It holds as long as outside spending has a greater impact on the winning probability of a candidate proposing the safe policy than on the winning probability of a candidate proposing the risky policy. Further, outside spending has no effect when the voter prefers the safe policy absent additional information. Under a ban, both candidates propose $p = 0$ and are elected with probability 1/2. Candidates would still propose $p = 0$ absent a ban since when they commit to the risky policy, they are elected only when the state is $\theta^i = h$—that is, with probability at most 1/2—and the risky policy is costly to implement.

voter welfare by decreasing the probability that $p = 1$ is implemented when it is less beneficial. This intuition, however, is not complete since the interest group intervenes only if candidates propose different platforms. Hence, $k \leq \overline{k}(\rho\Delta)$ is only necessary, but not sufficient, for outside spending to benefit the voter.

PROPOSITION 3   There exist unique $D^* \in (1, 1+\overline{\epsilon})$ and $k^* \in (\frac{1-\underline{\pi}}{2-\underline{\pi}}, 1-\underline{\pi})$, such that the voter welfare absent a ban is

    (i) strictly higher than under a ban if and only if $\rho\Delta \in (D^*, 1+\overline{\epsilon})$ and $k \in (k^*, 1-\underline{\pi})$;

    (ii) strictly lower than under a ban if $k > \overline{k}(\rho\Delta)$;

    (iii) the same as under a ban, otherwise.

Two conditions need to be satisfied for outside spending to improve voter welfare. First, candidates must propose different platforms with positive probability, so the interest group has an incentive to engage in outside spending. In this set-up, platform divergence requires candidates to play a mixed strategy and can only happen if the policy cost is sufficiently large ($k \in (k^*, \overline{k}(\rho\Delta))$). Second, the informational gain from learning θ^i must be high enough to compensate for the risk that no candidate proposes $p = 1$ ($\rho\Delta > D^*$).

These results do not automatically invalidate the Supreme Court's arguments in favor of removing restrictions on the source of funding of outside spending. However, they provide restrictions on observables under which these arguments are likely to be correct. In particular, in the Appendix (see Corollary 1) we show that in order to be beneficial, outside spending needs to be "rare," in the sense that it has to happen with probability strictly lower than 1/2.[13] Finally, even if *Citizens United* has increased voter welfare, the campaign finance framework may still be inefficient from a social welfare perspective, as the next section now shows.

EVALUATING THE CURRENT REGULATION

In this section, we allow for coordination between the interest group and candidates. In particular, we assume that in stage 2 of the game (see The Model section) the interest group can send a cheap talk message $m_i(j) \in \{h,l\}$ to candidate $j \in \{1,2\}$, and focus on the most informative equilibrium strategy. To allow for the possibility of outside spending in equilibrium, we continue to assume that $c < \underline{\pi}$.

Coordination increases the interest group's ability to obtain its preferred policy. The group can use messages to "warn" candidates that the policy reduces its payoff ($\theta^i = 1$), and credibly signal that should a candidate commit to the risky policy, the group will endorse his opponent. Such strategy, however, can be supported in equilibrium only when the policy cost k is large enough (see Lemma 2 in the Appendix). Intuitively, when k is too small relative to the electoral return of choosing the safe policy ($\underline{\pi}$), proposing the risky policy is always a dominant strategy for both candidates.[14] Proposition 4 examines the welfare consequences of allowing for coordination between candidates and the interest group.

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[13] This result is due to the candidates' mixing strategies, not the uniform distribution of the states.

[14] Notice that absent outside spending, group i would lack the ability to influence candidates' action via the voter's beliefs. Coordination can affect candidates' platforms only when complemented by outside spending.

PROPOSITION 4 In equilibrium,

(i) if $\rho\Delta > 1$, the voter welfare is strictly higher absent a ban when coordination is allowed than without coordination or under a ban;

(ii) if $\rho\Delta \leq 1$, the voter welfare is higher under a ban than absent a ban without coordination (strictly if $k > \overline{k}(\rho\Delta)$) or with coordination (strictly if $k > 1-2\underline{\pi}$).

Proposition 4 implies that the current campaign finance legislation is inefficient. If the informational gain from learning θ^i is low ($\rho\Delta \leq 1$), then reducing the cost of outside spending harms the electorate. Conversely, if the group's private information is highly valuable to the electorate ($\rho\Delta > 1$), voters would be better off if coordination was permitted.

This last result highlights the importance of the timing assumptions. When i can engage in outside spending before candidates choose their platform, direct communication is no longer beneficial for voters. This, however, does not invalidate the reasoning in this section. Allowing for coordination is still Pareto improving because it induces the same candidate behavior without on path costly outside spending. Further, our set-up, where advertising expenditures occurs after platform choices, focuses specifically on the type of outside spending affected by *Citizens United*. A group's advertising prior to candidates' platform decision is more closely related to policy advocacy, which was already protected by the First Amendment prior to the 2010 Supreme Court's decision.

This observation also implies that Proposition 4 holds even when we incorporate the group's payoff in our welfare criteria. Indeed, whenever coordination improves the voter welfare, it also improves the joint welfare since the group obtains its preferred policy at no cost. Further, under our payoff assumption, the group is indifferent (*ex ante*) between the risky policy and the safe policy. Consequently, lifting a ban has no effect on the group's payoff whenever it hurts the voter by eliminating all candidates' incentive to offer the risky policy.

CONCLUSION

Most of the current debate on the role of outside spending revolves around two themes: (i) whether corporations and unions' rights and policy interest coincide with—or at least deserve the same protection as—those of American citizens' (see e.g., Justice Steven's dissenting opinion on *Citizens United v. FEC*), and (ii) whether outside spending is really uncoordinated, rather than a vehicle to circumvent existing regulation (Ansolabehere, Tripathi and Snyder 2002; Heineman 2012). Few studies examine the impact of outside spending under the assumptions that it provides useful policy information to the electorate. We show that under these assumptions lifting a ban on unions and corporations' funding of outside spending can be harmful for voters, *especially* when interest groups and the electorate's preferences are well aligned. We also show that the regulatory framework resulting from *Citizens United* is either too permissive (if congruence between voters and interest groups is low) or too restrictive (if congruence is high), and in all cases inefficient.

While capturing important aspects of the delegation problem between voters and politicians, our theory does not incorporate partisanship or adverse selection, nor is it equipped to analyze incremental changes in the cost of outside spending. Future work could incorporate these aspects in our parsimonious framework. Another promising avenue for future research consists in studying the choice between contributions (direct transfers to candidates) and outside spending as alternative channels of influence.

REFERENCES

Ansolabehere, Stephen, Micky Tripathi, and James M. SnyderJames M. Jr. 2002. 'Are PAC Contributions and Lobbying Linked? New Evidence From the 1995 Lobby Disclosure Act'. *Business and Politics* 4(2):131–55.

Ashworth, Scott, and Kenneth W. Shotts. 2010. 'Does Informative Media Commentary Reduce Politicians' Incentives to Pander?'. *Journal of Public Economics* 94(11):838–47.

Boleslavsky, Raphael, and Christopher Cotton. 2015. 'Information and extremism in elections'. *American Economic Journal: Microeconomics* 7(1):165–207.

Brooks, Deborah Jordan, and Michael Murov. 2012. 'Assessing Accountability in a Post-Citizens United Era'. *American Politics Research* 40(3):383–418.

Cho, In-Koo, and David M. Kreps. 1987. 'Signaling Games and Stable Equilibria'. *The Quarterly Journal of Economics* 102(2):179–221.

Citizens United v. Federal Electoral Commission (FEC). 2010. 08-205 (558 U.S. 310).

Coate, Stephen, and Stephen Morris. 1995. 'On the form of transfers to special interests'. *Journal of political Economy* 103(6):1210–35.

Dalton, Philip, and Charlton McIlwain. 2011. 'Third-Party Hatchet Ads: An Exploratory Content Study Comparing Third-Party and Candidate Spots From the 2004 Presidential Election'. *Atlantic Journal of Communication* 19(3):129–51.

Dewan, Torun, and Rafael Hortala-Vallve. 2016. 'Electoral competition, control and learning'. British Journal of Political Science (forthcoming). Available at http://eprints.lse.ac.uk/68258/, accessed 25 March 2017.

Ely, Jeffrey C, and Juuso Välimäki. 2003. 'Bad reputation' *The Quarterly Journal of Economics* 118(3):785–814.

Fox, Justin, and Richard Van Weelden. 2012. 'Costly transparency' *Journal of Public Economics* 96(1):142–50.

Grossman, Gene M., and Elhanan Helpman. 2001. *Special Interest Politics*. Cambridge, MA: MIT press.

Hall, Richard L., and Alan V. Deardorff. 2006. 'Lobbying as Legislative Subsidy'. *The American Political Science Review* 100(1):69–84.

Heineman, Ben W. Jr. 2012. 'Super PACs: The WMDs of Campaign Finance'. *The Atlantic*, 6 January. Available at http://www.theatlantic.com/politics/archive/2012/01/super-pacs-the-wmds-of-campaign-finance/250961/, accessed 24 April 2016.

Kirkpatrick, David D. 2010. 'Lobbyists Get Potent Weapon in Campaign Ruling'. *New York Times*, 21 January, p. A1. Available at http://www.nytimes.com/2010/01/22/us/politics/22donate.html, accessed 24 April 2016.

Klumpp, Tilman. 2014. 'Populism, Partisanship, and the Funding of Political Campaigns.Working Paper. Available at https://sites.ualberta.ca/~klumpp/docs/populism.pdf, accessed 25 March 2017.

Potters, Jan, and Frans vanWinden. 1992. 'Lobbying and Asymmetric Information'. *Public Choice* 74(3):269–92.

Prato, Carlo, and Bruno Strulovici. 2016. 'The Hidden Cost of Direct Democracy: How Ballot Initiatives Affect Politicians' Selection and Incentives'. Journal of Theoretical Politics, Available at http://journals.sagepub.com/doi/abs/10.1177/0951629816650762, accessed 29 June 2016.

Prat, Andrea. 2005. 'The Wrong Kind of Transparency'. *The American Economic Review* 95(3):862.

Snyder, James M. 1989. 'Election goals and the allocation of campaign resources'. *Econometrica* 637–60.

SpeechNow v. Federal Election Commission (FEC). 2010. 08-5223.

Wolton, Stephane. 2016. 'Are Biased Media Bad for Democracy?'. Working Paper. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2285854, accessed 25 March 2017.