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IZA DP No. 11945

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ABSTRACT

Special Interest Groups versus Voters and the Political Economics of Attention

Asymmetric information between voters and legislative representatives poses a major challenge to the functioning of representative democracy. We examine whether representatives are more likely to serve long-term campaign donors instead of constituents during times of low media attention to politics. Combining data on campaign finance donations made by individuals and special interest groups with information on their preferences for particular bills, we construct novel measures of electoral and organized interests pressure that representatives face with regard to specific legislative votes. In our analysis based on 490 roll calls between 2005 and 2014 in the US House of Representatives, we find strong evidence that representatives are more likely to vote with special interests and against constituency interests when the two are in conflict. Importantly, the latter effect is significantly larger when there is less attention on politics. Thereby, we draw on exogenous newsworthy shock events that crowd out news on the legislative process, but are themselves not related to it. The opportunistic behavior seems not to be mediated by short-term scheduling of sensitive votes right after distracting events.

JEL Classification: D72, L82, L86

Keywords: attention, campaign finance, interest groups, legislative voting, mass media, media attention, roll call voting, US House of Representatives

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1 Introduction

Representatives in democracies want to be re-elected. In order to win an election, they have to convince their constituents to vote for them. Electoral support depends on the extent to which voters perceive representatives to support legislative bills in line with their preferences, as well as on persuasive campaigning, the latter being largely financed by special interest groups. These groups in turn contribute more if a representative votes as they desire. In this intuitive framework – conceptualized by Kau et al. (1982) – a conflict of interest can emerge. If, for a particular policy issue, special interests and the electorate's interests are not aligned, the representative faces a trade-off between serving the electorate and following the wishes of special interests.[1]

In this paper, we study the fundamental role that media attention plays in this trade-off. Most importantly, voters rely on media outlets as intermediaries for political information, while wealthy special interest groups are generally well informed about the representatives' actions in office. Accordingly, media attention to politics is expected to crucially affect whether representatives pursue the interests of their constituency when those are in conflict with the positions of special interest groups that donate to their campaigns. The implied strategic calculus has been noted in interviews with former congressmen. For example, Representative Vin Weber (R-MN, 1995) reports that "If nobody else cares about it very much, the special interest will get its way. [...] If the company or interest group is (a) supportive of you, (b) vitally concerned about an issue that, (c) nobody else in your district knows about or ever will know about, then the political calculus is quite simple." (Schram 1995, p. 4)

Following this notion, we hypothesize that a representative is more likely to support a bill that goes against her voters' interests but is favored by special interests (that financially contribute to her campaign) at times of low media attention to the legislative process. In order to test this hypothesis, we exploit that media outlets in a competitive market need to assess the 'newsworthiness' of political information vis-à-vis non-political information, as resources for coverage are limited. Accordingly, an extended coverage of non-political events or issues crowds out political coverage. Moreover, it induces variation in media attention to the legislative process that is independent from what is currently debated in the legislature. The validity of exploiting exogenous variation in media attention due to newsworthy 'distracting' events is well established in the literature pointing to media attention

[1] We use the terms *interest groups*, *organized interests* and *special interests/special interest groups* interchangeably.

as a strategic factor which political agents bear in mind when they take their decisions.[2] However, measuring the electorate's *as well as* special interest groups' preferences regarding particular issues across a broad array of policy domains is challenging.

In our empirical investigation focusing on voting decisions in the US House of Representatives, we are able to measure special interests' and voters' preferences in the context of a specific vote by a specific representative. By combining data on campaign finance donations from special interest groups with information on the same groups' positions on a particular bill, we construct a novel representative-vote-specific measure of interest group pressure. More precisely, we can observe how much money a representative receives prior to a certain vote from groups favoring the bill, as well as from groups publicly opposing the legislation. Analogously, we define a representative-vote-specific measure of voters' interests which accounts for the extent of electoral pressure faced by a single representative with respect to a particular bill. Broadly speaking, we count the number of actively contributing citizens who are connected to groups that either favor or oppose specific pieces of legislation, and set this number into relation with the total number of actively donating citizens living in the district considered.[3] That is, for a given US representative, we know the amount of campaign support she received from special interests supporting or opposing a particular bill, as well as the fraction of the politically active (donating) electorate in her district that is in favor of or against this same bill. Overall, our unique data set includes information on individual level exposure to interest positions for 490 roll calls on 429 different bills between 2005 and 2014 in the US House of Representatives, leaving us with a base sample of over 200'000 observations.

Based on this data set, we test our baseline hypothesis by regressing representatives' voting decisions ('Yes' or 'No') on our measures for special and constituent interest, taking into account whether their interests are aligned and whether the roll call falls on a day with low attention to politics. We thus compare legislators' voting decisions in a situation of exogenously low media attention with the same legislators' decisions under normal media attention. Specifically, we exploit exogenous variation in the amount of news coverage given to the US lawmaking process that is driven by distracting events like natural disasters or shooting rampages.

Two main findings emerge from our analyses. First, if representatives face a conflict of interest as outlined above, their voting behavior follows the position of their special interest campaign donors with voter pressure losing out as a determinant. Second, given a conflict of interest and in addition

[2] Eisensee and Strömberg (2007) provide pioneering work on the US government's foreign aid decisions in response to natural disasters. Adopting an instrumental variable strategy based on a compiled measure of general news pressure, they show that a country is more likely to receive financial support if the disaster is covered by the US evening news . Garz and Sörensen (2017) find that politicians resign with a higher probability after their political immunity is lifted if their cases receive more exogenously determined media attention. Finally, Durante and Zhuravskaya (2018) show that Israeli military forces attacks against Palestinians are more likely to occur one day before anticipated newsworthy US events take place.

[3] For example, if a bill intended to increase power production from renewables comes to the vote, our measure largely reflects the share of the donating population in a representative's district that is employed in the alternative energy sector or supports environmental protection groups minus the share of donating citizens working for traditional energy producers.

the occurrence of a distracting event, representatives are even more likely to vote in favor of a bill if they have close ties to special interest groups that support this bill; one standard deviation more (about $42,000) in donations from special interest groups favoring a particular bill increases the probability that a conflicted representative votes in line with the position of her donors and against the constituent interests by 11 percentage points if there is low media attention. Constituents' interests in a bill cannot account for their representatives' roll call voting behavior under this condition. The two findings are robust to various robustness checks. We further show that there is no indication of systematic agenda-setting after shock events as a possible mechanism that drives our results.

Our findings contribute to the literature on the role of campaign contributions in representatives' policy decisions. Important theoretical considerations are discussed in Kau et al. (1982) and Grossman and Helpman (1994). Empirical evidence for a positive relationship between campaign donations and legislative voting in line with the interests of donors is provided by many studies (see, e.g., Wilhite and Theilmann, 1987; Langbein and Lotwis, 1990; Stratmann, 1991, 1995, 2002; Fellowes and Wolf, 2004; Mian et al., 2010) – but not by all (see, e.g., Wright, 1985; Grenzke, 1989; Bronars and Lott, 1997; Wawro, 2001).[4] While together these contributions cover special interests' influence through campaign contributions on various issues, each study individually is rather selective as to what particular bills and interest groups it focuses on. This is due to the difficulty of measuring interest groups' and voters' preferences on a large number of diverse bills simultaneously. We rise to this challenge and propose a new way of measuring these preferences, allowing us to take into consideration a wide array of bills across the full range of policy domains.[5]

Our study importantly complements the work examining the interaction between interest groups' influence through campaign money and attention to politics (e.g., Schroedel, 1986; Jones and Keiser, 1987; Neustadtl, 1990; Witko, 2006; Matter and Stutzer, 2016).[6] For specific issues, these studies provide evidence that media attention shapes the role of financial campaign support provided by interest groups in representatives' policy decisions, conditional on high or low attention to exactly the bills under consideration. In contrast, our study covers a large range of different policy issues and exploits exogenous variation in media attention to the Congress. Hence, our results do not suffer from a potential selection bias, as our treatment, low attention to politics due to distracting newsworthy events, is independent of the bills under consideration.

[4] Stratmann (2005) as well as Ansolabehere et al. (2003) provide excellent reviews of the literature, though they come to opposite overall conclusions regarding the general effectiveness of money in affecting policy outcomes. While Ansolabehere et al. (2003) emphasize that donations can to a large extent be understood as consumption of some expressive value, Stratmann (2005) focuses on money from special interest groups effectively affecting representatives' voting behavior.

[5] In fact, our data set contains the entire universe of bills in the US House between 2005 and 2014 on which at least one roll call on final passage (requiring a simple majority) took place and for which at least one organization publicly announced opposition or support.

[6] This literature does, in part, refer to different terms of what we here call 'media attention' or 'attention'. Among these, 'visibility' or 'salience' are the terms most often used.

Further, our findings are important for the emerging literature that sheds light on the interaction between media markets and political markets. Contributions in this literature have documented how media access influences government responsiveness and accountability, redistributive spending, and voter turnout (Besley et al., 2002; Besley and Burgess, 2002; Strömberg, 2004; Snyder and Strömberg, 2010), and thus crucially contribute to our understanding of the media's role as 'fourth estate'. In this context, our contribution stresses a systemic problem of the fourth estate based on free media markets, when the role of money in politics and media attention are inherently interdependent. That is, media outlets' competition for the audience's attention (with the necessary focus on newsworthy events) gives special interest groups more influence over legislative politics.[7]

The remainder of this paper is organized as follows. Section 2 introduces our theoretical considerations on how media attention shapes a single representative's voting calculus, develops our main hypothesis, and introduces our empirical strategy. In Section 3, we describe the construction of our main explanatory variables measuring special interests' and voters' preferences with regard to particular policy issues. In the same section, we also back up the choice of distracting events that we use as indicators for reduced media attention to politics. Section 4 presents our main results. Robustness tests are provided in Section 5. We investigate a potential mechanism in Section 6, where we hypothesize strategic agenda-setting by majority leaders as a possible force mediating our results. Finally, we offer concluding remarks in Section 7.

2 Basic framework and econometric model

Our basic mechanism regarding the interaction between media attention and the voting behavior of elected representatives can be easily developed within the conceptual framework of office-motivated representatives suggested by Kau et al. (1982). A representative is motivated to maximize net electoral support by taking into account the electorate's concerns as well as the policy preferences of special interest groups supporting her campaign financially. In cases where these two groups' preferences diverge, representatives face a trade-off.

Specifically, a representative is confronted with citizens who vote retrospectively, i.e., they evaluate a representative's performance on the basis of her past policy decisions. The higher the congruence of

[7] Importantly, this interpretation of our results is, theoretically, independent of the extent of media ownership concentration. A popular critical view expressed in earlier contributions on media economics (see, e.g., Herman and Chomsky 1988) is particularly concerned with corporate/special interests' influence on public policy due to a lack of diversity and competition in free media markets. An argument is made that if a large majority of news outlets (in terms of the audience size they reach) is owned and controlled by a handful of large media corporations, which in turn are owned by other corporations, special interests have ways to directly influence legislative decisions via media attention because they control the media. Our results, of course, can neither contradict nor support this conjecture. They do, however, point to a complementary concern of more fundamental systemic/institutional nature than the conjectured supply-side driven influence on media attention through direct control of the media. Even with a highly competitive media market with many media outlets, a simple demand-side driven feature such as the focus on 'newsworthy' catastrophic events, tends to align legislative politics with special interest groups' rather than with voters' preferences.

the representative's actions with the preferences of the voters, the more direct electoral support she gets (see Key, 1966 and Fiorina, 1981 for two seminal papers on retrospective voting). In addition, interest groups provide campaign contributions which are used by representatives to finance the costly election campaigns, thereby fostering electoral support indirectly.[8] How much they provide depends on a representative's position as well as its malleability regarding the policy issues they consider important. We think of campaign contributions primarily as reflecting long-term exchange relationships between interest groups and some individual representative. Thereby, donations serve as a potential channel of access that provides opportunities for further lobbying activities.[9]

We further assume interest groups always to be well informed about representatives' voting decisions, while voters are assumed to primarily rely on information provided by the media.[10] Consequently, the direct electoral support a representative receives from taking a certain policy position does not solely depend on voters' preferences, but also on how well voters are informed about and pay attention to their representative's voting behavior. In the most extreme scenario, assuming no media attention and a conflict of interest (e.g., special interests favor and voters oppose a particular bill), voters will not learn about their representative's voting decision, making a voter-congruent behavior costly in terms of losses in campaign donations provided by interest groups (and no gain in direct electoral support). More generally, whenever voters' and special interest groups' preferences on a particular issue/bill diverge, the trade-off faced by the representative is contingent on whether voters are currently paying attention to the lawmaking process. The less the attention that is paid to it, the stronger are the incentives for representatives to serve special interests and the lower is the pressure to vote in deference of constituent interests.[11]

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[8] In a recent empirical study, Spenkuch and Toniatti (2018) have evaluated the quantitative importance of campaign expenditures for a politician's vote share (see also Stratmann, 2018, for a review of the related literature). By comparing neighboring counties that are (for exogenous reasons) assigned to different media markets, and therefore experience a different intensity in campaign advertising in the context of presidential elections, they find a large significant effect of advertising on the vote shares achieved.

[9] Access-oriented campaign donations are analyzed in Hall and Wayman (1990), Austen-Smith (1995) and Kalla and Broockman (2016). Snyder (1992) and Kroszner and Stratmann (1998, 2005) emphasize the long-term motives in political giving.

[10] While organized interest groups have an advantage in monitoring the activities of representatives, a single rational voter has little incentive to actively learn about their positions (Lohmann, 1998). In the context of national US politics, organized interest groups are particularly well-known to keep track of representatives' actions in office with the help of professional lobby firms. For example, various influential special interest groups rank members of Congress based on how they vote in a number of roll call votes on issues considered particularly important to the interest groups, which obviously implies that these groups follow the members of Congress' actions very closely (see Fowler, 1982, for an early scholarly discussion of this interest group activity). In contrast, voters likely rely much more on the media to monitor their representatives' actions. Several recent contributions document the important role that media play in providing political information for the electorate. DellaVigna and Kaplan (2007) find a positive effect of the introduction of the conservative Fox News Channel on the Republican vote share in Presidential elections. Oberholzer-Gee and Waldfogel (2009) show that local television news has a positive effect on Hispanic turnout. Regarding the press, Snyder and Strömberg (2010) document that local newspapers are voters' key providers of political information about representatives.

[11] In a model with endogenous news coverage, Prat and Strömberg (2013) show that voters are better able to hold their politicians accountable for issues that are receiving more attention from the media.

Based on our theoretical framework, we derive the following econometric model:

$$\begin{aligned}
\textit{Vote Yes}_{ij} = \beta_0 &+ \beta_1 \textit{SIG Money Yes}_{ij} + \beta_2 \textit{Constituency Yes}_{ij} \\
&+ \beta_3 \textit{SIG Money Yes}_{ij} \times \textit{Shock}_j + \beta_4 \textit{Constituency Yes}_{ij} \times \textit{Shock}_j \\
&+ \beta_5 \textit{SIG Money Yes}_{ij} \times \textit{Conflict}_{ij} + \beta_6 \textit{Constituency Yes}_{ij} \times \textit{Conflict}_{ij} \\
&+ \beta_7 \textit{SIG Money Yes}_{ij} \times \textit{Shock}_j \times \textit{Conflict}_{ij} \\
&+ \beta_8 \textit{Constituency Yes}_{ij} \times \textit{Shock}_j \times \textit{Conflict}_{ij} + \beta_9 \textit{Conflict}_{ij} \\
&+ \textit{Representative}_i \times \textit{Party-of-Sponsor}_j \; FE \\
&+ \textit{Vote}_j \; FE + \varepsilon_{ij}.
\end{aligned} \tag{1}$$

The dependent variable subsumes representatives' voting behavior on legislative proposals. $\textit{Vote Yes}_{ij}$ is an indicator that takes a value of 100 if representative i votes Yes in vote j (zero if she votes No). $\textit{SIG Money Yes}_{ij}$ and $\textit{Constituency Yes}_{ij}$ are our (continuous) measures for special and electoral interests' pressure that single representatives i face with regard to specific legislative votes j. In order to separate a situation where a representative faces voter and special interests that are aligned from a situation where they are in conflict with each other, we define an indicator, $\textit{Conflict}_{ij}$, which reflects whether representative i faces a conflict of interest in vote j. It is one if either $\textit{SIG Money Yes}_{ij} > 0$ and $\textit{Constituency Yes}_{ij} < 0$ or $\textit{SIG Money Yes}_{ij} < 0$ and $\textit{Constituency Yes}_{ij} > 0$. To distinguish votes that have taken place with high attention from those that have been given less attention, we define the indicator $\textit{Shock}_j$. It takes a value of one if vote j is taken within a defined time interval after a day with serious and exogenous shock activity (whereas the selected time intervals differ for the event types we consider). We include fixed effects for each vote and representative, whereby we interact the latter with the party the bill's sponsor is affiliated with. The representative $\times$ party-of-sponsor effects thus take into account the general willingness of a representative to vote in favor of a bill that was sponsored by a Democrat or Republican, respectively (i.e., two dummies for each representative). As campaign funds from specific groups interested in particular legislation and representatives' ideologically fixed stances towards these bills are mutually dependent, it is crucial to include these individual fixed effects in the model.[12] The vote-specific effects take into account that there may be tendencies which lead, independently of single representatives, to a higher or lower acceptance regarding a particular bill at vote j. For example, vote-specific effects control for the impact of successful bipartisan negotiations on representatives' voting decisions. In such cases, voting No may be strongly sanctioned by party leaders.

The interaction terms of *SIG Money Yes* and *Constituency Yes* with *Shock* and *Conflict* along with the triple interactions test our main hypothesis. Based on the estimated coefficients, we can compute

[12] We exclude 22 observations from an independent representative from the analysis.

and compare the marginal effects of campaign money and voters' preferences on representatives' voting behavior under different constellations. Specifically, we can distinguish four constellations, i.e., 1) a baseline with no shock and no conflict, 2) a first control with a shock in attention to politics, but no conflict, 3) a second control with no shock, but conflict and 4) a treatment with both shock and conflict. Compared to all other situations, we expect the highest effect of special interests as well as the lowest effect of the constituents' preferences under 4) – i.e., when the representative is conflicted and the vote is taken after a serious shock event. Note that our estimation strategy requires that any effect of special and constituent interests on representatives' voting decisions is identified by differences within a particular vote and within a particular representative who votes on a bill sponsored by one of the two parties. Concerning the models that contain interactions with $Conflict_{ij}$ we also include its main effect in order not to force the intercept for the relationship between special/constituent interests and conflict to zero. The main effect of $Shock_j$ in our model is already captured by the vote fixed effects we use in all our regressions. Finally, it seems plausible that the remaining factors such as experience which explain representatives' voting behavior on particular bills – captured by the error term ε_{ij} – are not independent of each other within a single representative. We therefore cluster the (heteroscedasticity-robust) standard errors at the representative level.

3 Data

Our empirical strategy involves the compilation of a novel data set combining various data sources. In order to compare representatives' chosen policy positions with the preferred positions of the electorate and special interest campaign donors, we rely on information in the context of legislative voting in the US House of Representatives. Individual voting records, the so-called roll call votes, serve as our dependent variable. The roll call data are from Congress.gov (previously Thomas.gov) as provided by GovTrack.[13] To construct our main explanatory variables, special interests and constituent interests, we link data on campaign finance donations from special interest groups and individual citizens (provided by the Center for Responsive Politics, hereafter CRP) to information on which of these interest groups opposes or supports specific bills considered in Congress (provided by MapLight). Overall, the data on roll call votes covers the period 2005 to 2014 (109th to 113th Congress), and consists of 204,481 individual voting decisions, taken in 490 roll call votes on 429 different bills. This selection corresponds to all final passage votes (requiring a simple majority) on bills for which interest groups exhibit preferences. We then link these political variables to data on exogenous shock events from databases on natural and technological disasters, terrorist attacks, and shooting rampages. This section describes in detail how these data are compiled and prepared, as well as how the resulting data set is used to test our hypothesis.

[13]GovTrack data is publicly accessible via an API under `https://www.govtrack.us/developers`.

3.1 Measure for special interests

We construct a representative-vote-specific variable of interest group pressure. For each representative i's voting decision j regarding a particular bill, we measure the extent to which organized interests that take a stand on the bill financially contribute to the campaign of representative i.[14] For this purpose, we link data on campaign donations provided by the CRP with information on the donors' bill positions collected by MapLight (see Appendix A.1 for information on data access). Both of these research organizations are non-profit and non-partisan.

Originally, the campaign contribution data is from the Federal Election Commission (FEC), the US agency that regulates campaign finance in federal elections. Building on the raw FEC records, the CRP assigns a group code to each single transaction, identifying the donor's ties to industries or ideological groups. The donors may be political action committees (PACs)[15] or individuals, whereby we only consider PAC contributions for our special interests measure. If, for example, the donation comes from an alternative energy producer's PAC, the corresponding group/industry code the CRP assigns is E1500 (*Alternative Energy Production & Services*). Since MapLight uses the same group categorization, we can directly link representatives' sources of campaign funding to specific pieces of legislation that are of documented interest to the contributing groups. MapLight uses public sources, such as news archives, congressional hearing testimonies, and groups' websites to document organizations' bill positions. Each record includes the bill number, the organization's name, the corresponding interest group code and its position on the bill (support, oppose or neutral), and the source MapLight used to identify the organization's position on the bill. If the above-mentioned producer of alternative energy adopts a clear position in favor of a particular bill (and this is considered by MapLight to be representative of the interest group *Alternative Energy Production & Services*), we code its campaign funds to a specific representative as money to vote in favor of the bill.

We restrict our analysis to the subset of (final) passage votes for which MapLight provides positions related to the associated bills. MapLight generally selects bills "that move forward in Congress or that

[14]Note that some bills are voted on several times. There are two reasons why members of the House of Representatives sometimes vote more than once on a particular bill. Either the new law does not get a majority and comes to the final passage vote in a revised version, and/or the bill is passed by the House, but does not get a majority in the Senate (both chambers have to agree), whereupon the House may again vote on the final passage of a version adapted by the Senate. Regarding the former reason, we have four bills which did not reach a majority initially, but came back to the final vote and were passed at a later point in time. Regarding the latter reason, there are 45 bills out of 429 in our sample which were passed, but came back once or more often in a version adapted by the Senate. Accordingly, these bills were voted on again and this up to six times.

[15]Organizations (but not individuals) that want to contribute to a candidate's campaign cannot do so directly. They have to establish a PAC that is regulated by the Federal Election Commission. Corporations, trade associations and unions establish a connected PAC, ideological or single-issue groups a non-connected PAC. Whereas for connected PACs, the establishing organization is allowed to provide funding for start-up and administrative costs, providing funds for the purpose of campaign contributions to a candidate is not allowed. Instead, connected PACs have to raise funds from individuals associated with the sponsoring organization, who are usually managers and executives in the case of corporations and members in the case of unions, trade and professional associations. Non-connected PACs, however, may accept funds from the general public, but are not sponsored by an associated organization.

are mentioned in the news or blogs. [MapLight does] not research support/opposition for ceremonial bills (such as naming post offices)."[16] More specifically, we do not consider votes on amendments, committee reports, and procedural issues related to these bills. For the House of Representatives, this selection results in 490 votes on 429 bills between 2005 and 2014, comprising 12,410 documented positions taken by 4,614 organizations, assigned to 388 different industry/ideological group codes.[17] On average, for a single bill in our sample, we observe 29 organizations that take a stand, belonging to 14 different interest groups.

We sum up all direct PAC donations a representative receives prior to a vote from interest groups supporting and opposing the related bill (*SIG Money Yes* and *SIG Money No*).[18] In our baseline model, we consider all donations that were made within the last election cycle before the vote (that is, the money donated during the last two-year term which helped with re-election). Specifically, we compute for each representative i the net donations in support of a specific bill she received during her last election cycle before voting j, i.e., $\textit{SIG Money Yes (net)}_{ij} = \textit{SIG Money Yes}_{ij} - \textit{SIG Money No}_{ij}$.[19] For some bills, we observe contrasting positions taken by organizations associated with the same group. If this is the case, we calculate the share of supporting organizations among the total number of organizations supporting or opposing the bill (i.e., a bill support index), and distribute the money according to this weight. In 98% of the group-bill combinations in our sample (5,768 in total), the organizations within a group category share the same position.

Figure A1(a) in the Appendix shows how different sectors are represented in our special interests measure. Each bar aggregates campaign donations that we can assign to particular votes, made by groups in the respective sector (in percentages relative to the total assignable money from all groups).[20] A possible concern with our measure of interest group pressure might be the double counting of some money flows (e.g., if a group that supports two bills donates to a representative who votes on both issues). In order to see to what extent this issue affects our special interests measure, we change the time frame and only consider the campaign donations a representative receives in the month before

[16] See `http://classic.maplight.org/us-congress/guide/data/support-opposition`.

[17] A complete list of the interest groups and sectors in the taxonomy of the CRP can be found under the following link: `https://www.opensecrets.org/downloads/crp/CRP_Categories.txt`.

[18] Table A1 in the Appendix provides an overview of the transaction types and interest group codes that we exclude before aggregating the donations. Note that we consider refunds when constructing the money variables, i.e., when donations are transferred from a candidate back to the donating PAC. In some cases, this results in a representative returning more money to groups than she received from them. In these cases, we replace the corresponding money variable with zero. Otherwise, we would consider a situation in which a representative returns more money to groups which support the bill than she receives from them as pressure to vote against the issue. This affects a total of 854 observations, i.e., 0.4% of the sample.

[19] Previewing the empirical analyses, our results are robust against changing the time frame to different possible alternatives, e.g., last year, last six months or last ten years (see Figure 5 in the robustness part). This supports the perspective of a long-term relationship between special interest groups and policy-makers.

[20] For the definition of the sectors, we follow the taxonomy of the CRP, except for the sector *Party*, which in our definition includes leadership PACs as well as party and candidate committees (single and joint). In the CRP's original definition, leadership PACs and candidate committees belong to the sector *Ideology/Single-Issue*, while joint candidate committees form a separate sector. Our sector *Ideological* corresponds to their sector *Ideology/Single-Issue*.

the vote. This is what the corresponding second bar in Figure A1(a) shows, indicating a distribution of money flows across sectors that is similar to the one for the main measure. In general, there is a trade-off between capturing the theoretically relevant long-term relationship between campaign donors and representatives, and the potential double counting of money in the special interests measure. However, as the overall pattern changes only slightly, we conclude that potential double counting of money is not a substantial concern for the interpretation of our findings (see also footnote 19).

In Appendix A.3, we analyze the determinants of the amount of campaign money (*SIG Money Yes* + *SIG Money No*) individual representatives receive from interest groups in the last election cycle before a particular vote in our sample and put the findings in perspective with the previous literature. The results from multiple regression analyses in Table A3 show that a Republican gets more money per vote than a Democrat, a member of the majority party more than a member of the minority party, a more experienced representative more than a less experienced one, a representative elected with a small margin of victory more than one with a safe margin, and a more moderate representative more than a more extreme one. Finally and not surprisingly, a more contested bill as well as a higher share of economic organizations interested in the bill attract more campaign money, on average.

3.2 Measure for constituent interests

We measure voters' preferences regarding a particular bill based on the idea that donations from individual citizens allow us to approximate the fraction of citizens in an electoral district that is either negatively or positively affected by it. The US *Federal Election Campaign Act* of 1971 requires candidates, parties and PACs to disclose their donors. Regarding individual contributions, they have to identify donors who give them more than $200 in an election cycle and to disclose their address and employer information. As for PACs, the CRP also assigns an industry/ideological group code to each individual transaction that reflects the interest in which a contribution is made. Group assignment is based on the donor's employer if the contribution is to a party or to a PAC that her employer is associated with (usually corporations and trade associations). However, if an individual contributes to a labor union's PAC or to an ideological and/or single-issue PAC (e.g., environmental protection, human rights, or gun control) the CRP assigns their corresponding group code. If a citizen contributes to a candidate, either the employer's group code, or, if the donation is identified as being ideologically motivated, the corresponding ideological group code is assigned.[21] Note that with this approach all the contributions of citizens in a particular district are considered independently on whether they went to their representative in the House (including, for example, donations to presidential candidates).

[21] If the individual contributes both to a candidate and an ideological PAC, the CRP codes the transaction as ideological if the candidate also receives funds from an ideological group with the same interest; see `https://www.opensecrets.org/resources/ftm/ch11p1.php`.

We link the information on individual donors' interests with the MapLight data on groups' preferences over specific bills in the same way as with the special interests measure. Based on the revealed position of the interest group she is associated with, we can derive whether a single donor (likely) prefers or opposes a certain piece of legislation. In a next step, we count all individual donors in an electoral district (represented by representative i) with links to groups that are in favor of and against the observed bill j.[22] We calculate net support (#supporting − #opposing donors) and divide this number by the total number of donors per district, resulting in *Constituency Yes (net)*$_{ij}$.[23]

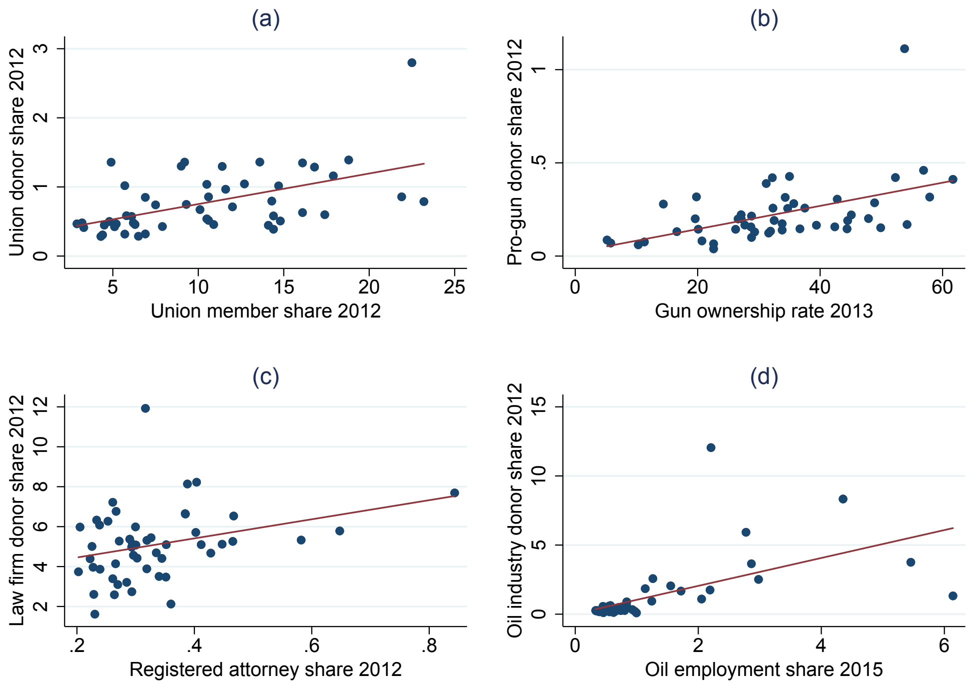
With regard to the time period, we count all donations made by individuals in the constituency of a representative during the last election cycle before the vote takes place (for example, if the vote takes place in May 2009, we count all donations in 2007 and 2008). This holds for all the donations except for those to presidential candidates. In the latter case, we consider donations made by individuals in a representative's district within the last presidential election cycle, i.e., the two years before the last presidential election. In cases where a citizen who is assigned to a particular group contributes more than once per election cycle, we count all of her transactions. An individual contributes about twice a year on average. We thus take repeated contributions by the same individual into account by assigning a higher weight to this individual's preference in our measure for district interests. Only on rare occasions is the same donor assigned to different groups within a cycle (e.g., if the individual contributes to her employer's PAC and additionally to an ideological PAC). In such a case, we also count both transactions. On average, an individual has links to 1.1 groups per cycle. Depending on whether the groups the individual is linked with share the same position with respect to the observed bill, the individual donor gets a higher (if they agree) or lower (if they disagree and offset each other) weight. The median individual is assigned to one group and donates once per election cycle.

An advantage of our approach and the resulting measure of citizens' preferences lies in the general applicability across policy issues. In the same way, we gather and aggregate information on individual donors linked to different kinds of groups like corporations, business associations, labor unions, non-profits, single-issue or ideological groups. As political giving is not only positively correlated with turnout but probably also with volunteer campaign activities, our variable for constituent interests captures the subset of citizens that potentially generates a large proportion of the electoral pressure representatives face. In line with the interpretation of small campaign donations by individual voters as

[22] An alternative approach is not to count individual donors, but to aggregate their contribution amounts, giving a higher weight to citizens who contribute more. We adopt this approach in a robustness test (see Figure 6 in the robustness part).

[23] Individual donors are matched to congressional districts based on the ZIP codes in the campaign finance data (home or employer's address) and concordance tables provided by the US Census Bureau, which approximate the areas of US Postal Service ZIP codes using so-called ZIP Code Tabulation Areas (ZCTAs). The relationship files are available under `https://www.census.gov/geo/maps-data/data/cd_national.html`. In 4.4% of the underlying individual transactions, we cannot allocate congressional districts because there is no corresponding entry in the US Census Bureau data. If a ZIP code falls into more than one district, we count the individual donors as if they belonged to all. In Table A1 in the Appendix, we provide an overview of the transaction types and interest group codes that we exclude before we aggregate the individual donations.

Figure 1: Validating the constituent interests measure



Notes: The graphs each show the part of the population in each US state that is (a) a member of a union, (b) has a gun, (c) is a registered attorney and (d) employed by the oil and gas industry, as well as the proportion of individual donations made by citizens that were assigned by the CRP to unions (sector *Labor*), pro-gun organizations (group code J6200), law firms (group code K1000) and the oil industry (industry *Oil & Gas*).

a form of 'weighted vote' – as pointed out by Ansolabehere et al. (2003) – we try to validate our novel approach to gathering voter preferences by relating membership and employment figures for various interests to information on individual donors' links to these groups. Figure 1 shows for each US state the share of the population that is (a) a member of a union, (b) has a gun, (c) is a registered attorney and (d) is employed in the oil and gas industry.[24] On the vertical is the proportion of donations coming from individuals assigned by the CRP to the respective group (relative to the total number of individual donations per state). As the two measures correlate highly for the examined interests, we conclude that our approach is a good way to approximate citizens' preferences for a wide variety of policy issues.

[24]The information on union membership is from Hirsch et al. (2001), the data on gun ownership is taken from Kalesan et al. (2016). The figures on the number of registered attorneys per state are provided by the American Bar Association (*National Lawyer Population Survey* – Resident Active Attorney Count; `https://www.americanbar.org/resources_for_lawyers/profession_statistics.html`), and, finally, the employment shares in the oil and gas industry stem from the American Petroleum Institute (*Impacts of the natural gas and oil industry on the US economy in 2015*; `https://www.api.org/news-policy-and-issues/american-jobs/economic-impacts-of-oil-and-natural-gas`.

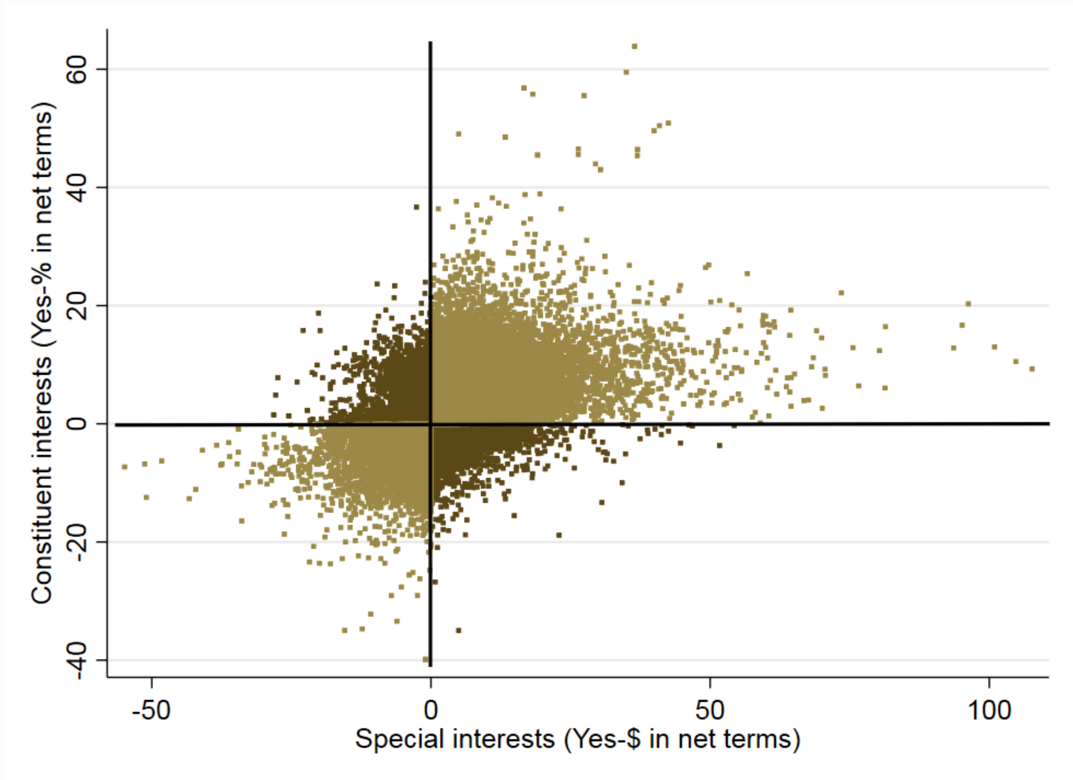
3.3 Interest groups versus voters

Figure 2 plots our measures for special and constituent interests against each other. Each point summarizes the situation a representative is confronted with when she votes on a particular bill, with campaign donors on the horizontal and voters on the vertical axis. The measure for special interests ranges from $-\$549,000$ to $\$1,070,000$, i.e., in the most extreme observation, a representative received more than a million dollars from groups supporting the bill during the last election cycle. On the other hand, voters' preferences range from -40% to 64%, i.e., a single representative faces an electorate where 64% (in net terms) of the politically active citizens are linked to groups which support the bill. All observations in the top-right and bottom-left quadrant reflect constellations where special and constituent interests are aligned regarding the issue that is decided. By contrast, observations in the top-left and bottom-right quadrant indicate a conflict of interest. This is the case for 15% of the individual voting decisions in the sample. The indicator $Conflict_{ij}$ from our estimation equation (1) accordingly takes a value of one.[25] For example, on December 6, 2007, the House of Representatives voted on H.R.6 (110th Congress), the *Energy Independence and Security Act of 2007*, a bill that sought to promote the alternative energy sector through various measures, including reduced subsidies to the oil industry. A total of 165 representatives (139 Democrats and 26 Republicans) faced a conflict of interest. Amongst these, 146 faced a conflict of the type interest groups Yes and voters No, with campaign funds from alternative energy producers, farmers, environmental organizations and labor unions on the one side, which were in favor of the bill, and an average voter against the bill, with links to the oil, gas, chemical and mining industry as well as to conservative advocacy groups.[26] Of the representatives with such a type of conflict (134 Democrats and 12 Republicans), the average received \$4,800 from interest groups that supported the bill, and faced a constituency of which 2.3% were against it (both in net terms). For the remaining conflicted representatives (5 Democrats and 14 Republicans), it was the other way around: special interests that opposed the bill (the average receiving −\$1,700) and a constituency in favor of it (2.8% on average). Note that our main hypothesis does not differentiate by the type of conflict that representatives face (special interests Yes and voters No, or special interests No and voters Yes). However, we will come back to this distinction later when we hypothesize agenda-setting by majority leaders as a possible mechanism that drives our results.

[25] In 73% of the sample, our special interests measure takes on non-zero values; 91% of the constituent interests variable are non-zeros. And there are 71% where both measures take on non-zero values. Since the zeros for the variables capturing special and constituent interests are largely due to the fact that the observed representative does not receive any money from groups with positions or that there are no individual donors in her constituency, which are assigned to groups with positions regarding the bill that is being voted on (there are only a few cases where the money/donors in favor and against a particular bill cancel out each other), we code the variable $Conflict_{ij}$ with zero in cases where one measure is zero arguing that campaign donors or voters may have no bill-specific policy preferences.

[26] The bill was publicly supported (among others) by the Solar Energy Industries Association, the National Farmers Union, the US Climate Emergency Council, the Sierra Club, and the AFL-CIO (American Federation of Labor and Congress of Industrial Organizations). Opposition arose, e.g., from the American Petroleum Institute, the National Mining Association, the US Chamber of Commerce, FreedomWorks, Americans for Tax Reform, and the American Highway Users Alliance.

Figure 2: Alignment and conflict between special interests' and voters' preferences faced by individual representatives



Notes: The unit of observation is a representative-vote-specific pair of positions. Observations are for the full sample of N=204,481. The special interests measure refers to *SIG Money Yes* (in $10,000 units), the constituent interests measure to *Constituency Yes*.

3.4 Identification of (limited) media attention on politics

In received research on attention and politics (see, e.g., Jones and Keiser, 1987 and Neustadtl, 1990), attention is measured by the media coverage of the bills under consideration. That is, the influence of labor union campaign spending on the representatives' voting decisions is studied by comparing how they voted when a labor-related bill got a lot of media attention with a situation when another labor-related bill got less media attention. There are substantial endogeneity concerns with such an approach, as there might well be factors, like the content of a bill, that influence at the same time media attention to the bill, voters' and special interests' positions on this bill, as well as representatives' decisions when voting on it.

We therefore adopt a different *indirect* approach, building on the idea of *news pressure* pioneered by Eisensee and Strömberg (2007). The focus here is on competing newsworthy information that crowds out coverage of the legislative process. Specifically, our identification strategy draws on unpredictable events which reduce media attention to politics but are arguably exogenous to the representatives and the bills they are voting on. For example, on December 5, 2007, a mass shooting occurred at a mall in

Omaha, Nebraska. Before committing suicide, the nineteen-year-old gunman killed eight people and wounded four. It was the deadliest killing spree in Nebraska since 1958.[27] The next day, December 6, 2007, the House of Representatives voted on the final passage of the previously-mentioned *Energy Independence and Security Act of 2007*.[28] Plausibly exogenous to the incident in Nebraska, we consider this vote as one that took place with little media attention to politics due to the distracting event.

In addition to shooting rampages in the US, we use worldwide disasters and terrorist attacks as potential distracting events. The information on disasters (natural and technological) is from EM-DAT, the International Disaster Database (Guha-Sapir et al., 2015).[29] The terrorism data originates from the Global Terrorism Database (GTD), introduced by LaFree and Dugan (2007). Regarding shooting rampages in the US, we rely on a list compiled by the *Los Angeles Times*, gathering the deadliest mass shootings over the last few decades.[30]

Previous work in media studies and communication studies shows that the perceived newsworthiness of a single event depends on its severity as well as on the place where it happened. (Koopmans and Vliegenthart, 2011, provide an overview of these arguments as well as empirical evidence regarding the drivers of news coverage of natural disasters). The more disastrous an event is, the more likely it will make the headlines. Similarly, incidents which happen on US territory will attract more attention by US media makers than events taking place somewhere else. We therefore distinguish between events occurring in the US and those occurring in the rest of the world (ROW), and only select the most devastating events. The number of deaths involved serves as an approximation for evaluating the severity of single incidents. For each type of event and separately for the US and the rest of the world, we aggregate the number of deaths per day. We then define a 'shock day' if the number of deaths lies above the 99th percentile of its (event- and region-specific) distribution. This approach ensures that we just consider the most serious incidents which potentially distract from the legislative process.[31]

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[27] `http://articles.latimes.com/print/2007/dec/06/nation/na-mall6`.

[28] It passed the House by a vote of 235-181. The final version of the bill passed Senate twelve days later, but did not contain the originally proposed tax changes for oil producers. With the signature of then President George W. Bush, it became public law (Pub.L. 110-140).

[29] EM-DAT reports a disaster if one of the following criteria is satisfied: i) Ten or more people dead; ii) 100 or more people affected; iii) The declaration of a state of emergency; iv) A call for international assistance.

[30] See `http://timelines.latimes.com/deadliest-shooting-rampages/` (accessed August 8th, 2017).

[31] In Section 5 we show that our results are robust to selecting less severe incidents as 'shock events'. As expected, the theoretically 'stronger' treatment of selecting only the most severe incidents also has stronger effects on the representatives' strategic behavior in line with our main hypothesis.

We only consider incidents that last no longer than one day (whereas the consequences may well be experienced for weeks or months). This concerns natural and also some technological disasters.[32] The reason for this approach is pragmatic, as based on the information at hand we cannot infer the peak of a disaster when it lasts several days.[33]

We end up with a list of clearly distinguished disasters that potentially crowd out news segments on other topics. Among the 26 one-day natural disasters that happened between 2005 and 2014 in the US, we mainly observe hurricanes and tornadoes (20 out of 26). Further, we record four earthquakes, one flood and one landslide. For events outside the US, one third refers to storms, one quarter to earthquakes and floods, and the rest to landslides, epidemics, extreme temperatures, volcanic activities and wildfires. Table 1 shows descriptive statistics for each type of shock event including the resulting 99th percentile thresholds. Note that for all the types of shocks in the US, the number of deaths is zero on over 99% of the days in our sample period 2005-2014. That is why we only use days with a positive number of deaths here.[34] Concerning shooting rampages in the US, we do not rely on distribution characteristics, since the incidents on the list we use are already a selection of the most fatal incidents. We are ultimately left with 206 shock days in total.

As we want to measure potential distraction from the legislative process due to increased media attention to newsworthy shock events, the relevant votes are those which take place afterwards. It is, of course, possible that votes are already affected on the same day, depending on the time of day a terrorist attack occurs, or even before the officially recorded first day of a natural disaster (in the case of hurricanes and tornadoes). The consequence is that we may assign some treatment days to our control group. The same happens if we fail to capture, e.g., a newsworthy natural disaster as the number of deaths it caused is below the 99th percentile threshold we use. Previewing the main analysis, any misallocation of days to treatment or control days attenuates any possible effect of media attention on voting behavior. The sizable effects we find are therefore lower bounds to the true effect.

In order to validate our approach as well as to assign the shock events as precisely as possible to control group and treatment group, we study i) whether we indeed observe a crowding out of news stories after the days we marked as shock days, and ii) how far the appropriate time frame reaches into the future. The analysis is based on an indicator of *daily news pressure* as developed and made

[32]In our sample period 2005-2014, 12% of the natural disasters in the US are one-day events, 50% last between one and five days, 26% between five and fifteen days, and the remaining 12% longer than fifteen days. The respective distribution for natural disasters in the rest of the world is 28%, 25%, 16% and 31%. For technological disasters in both the US and the rest of the world, over 90% are one-day incidents. All terrorist attacks and shooting rampages are one-day incidents.

[33]In a robustness check, we also consider disasters which last up to one week, for which we distribute the number of deaths that a disaster caused equally over all the days it took place. The correlation between the corresponding treatment (i.e., shock) indicators is 0.79, and the results are very similar if we use the modified indicator. The corresponding results are available upon request.

[34]The respective thresholds are 99.56% (natural disasters), 99.15% (technological disasters) and 99.23% (terrorist attacks), i.e., regarding terrorist attacks, the number of deaths caused by terror in the US is zero at 99.23% of days between 2005 and 2014 (3,624 out of 3,652 days)

Table 1: Shock events: The number of deaths per day (by type of event and region)

Type of event	Region	Mean	Min.	Max.	99th pctl.	#shock days (#incidents)
Natural disaster	USA	0.06	0	54	0	16 (26)
	ROW	121.80	0	222570	135	36 (1028)
Technolog. disaster	USA	0.14	0	50	0	31 (32)
	ROW	18.36	0	1199	173	36 (2284)
Terrorist attack	USA	0.02	0	15	0	28 (151)
	ROW	24.23	0	1542	200	36 (64478)
Shooting rampage	USA	-	-	-	-	23 (-)

Notes: We define a day as potentially distracting from the legislative process (i.e., a shock day) if the number of deaths per day lies above the 99th percentile of its (event- and region-specific) distribution. In case of natural and technological disasters, we restrict the sample to one-day incidents (i.e., disasters which last no longer than one day). Regarding shooting rampages in the US, we use a list containing the deadliest incidents in the last decades (compiled by the *Los Angeles Times)* and, therefore, do not rely on distribution characteristics. The sample period is 2005-2014. ROW refers to the rest of the world and aggregates all countries outside the US.

available by Eisensee and Strömberg (2007).[35] It measures the median length of the first three stories in the US evening news (across the television channels ABC, CBS, CNN and NBC). The idea behind *daily news pressure* is that if a major media event occurs, the news stories usually become longer and the events are placed at the beginning of a bulletin. As total airtime is limited to 30 minutes, the length of the first three segments is a good measure for how much newsworthy material is available on a particular day. Depending on editors' evaluations regarding the newsworthiness of competing news stories, some events and topics will receive less attention, just because something else happened by chance.

We estimate models with *daily news pressure* at different times around a particular shock as the dependent variable. Given the day of a shock t, we examine day t and the six days following the shock (t+1, t+2, ..., t+6), the subsequent time spans [t+7, t+10] and [t+10, t+20] as well as two intervals preceding the shock, [t–10, t–6] and [t–5, t–1]. The coefficients of the shock indicators then display the magnitude of the crowding out effects at the considered times. Table A4 in the Appendix shows the OLS regression results. We include year-specific month fixed effects and fixed effects for each day of the week in order to ensure that the estimated crowding out effects are not simply due to seasonal and intra-weekly fluctuations in news coverage. In addition, we control for particularly severe shocks that have led to an excessive crowding out of news (such as the 2011 Fukushima nuclear accident or the 2010 Haiti earthquake). Figure 3 depicts for each type of shock how the respective effects evolve over time. We find significant crowding out effects for all events that happen on US territory, as well

[35]The measure covering the years 1968-2013 is accessible via David Strömberg's homepage under `http://perseus.iies.su.se/~dstro`.

as for natural disasters and terrorist attacks outside the US. On their peak days, natural disasters and shooting rampages in the US as well as terrorist attacks both in and outside the US exhibit the strongest crowding out effects (80 to 120% of a standard deviation), followed by technological disasters on US territory and natural disasters outside the US (40 to 50% of a standard deviation). Importantly, the relevant reporting time frames seem to depend on the type of event and on whether the US is affected or not, but basically cover the period between the day of the shock event and five days after it. For the case of natural disasters in the US, we already observe crowding out effects before they happen. This is to be expected as most of the natural disasters recorded in the US are storms which are predictable to a certain extent and are typically covered in the news before they turn into a disaster (i.e., the days before a hurricane hits the coast). As we observe no considerable crowding out effects after technological disasters outside the US, we exclude them from further analysis.

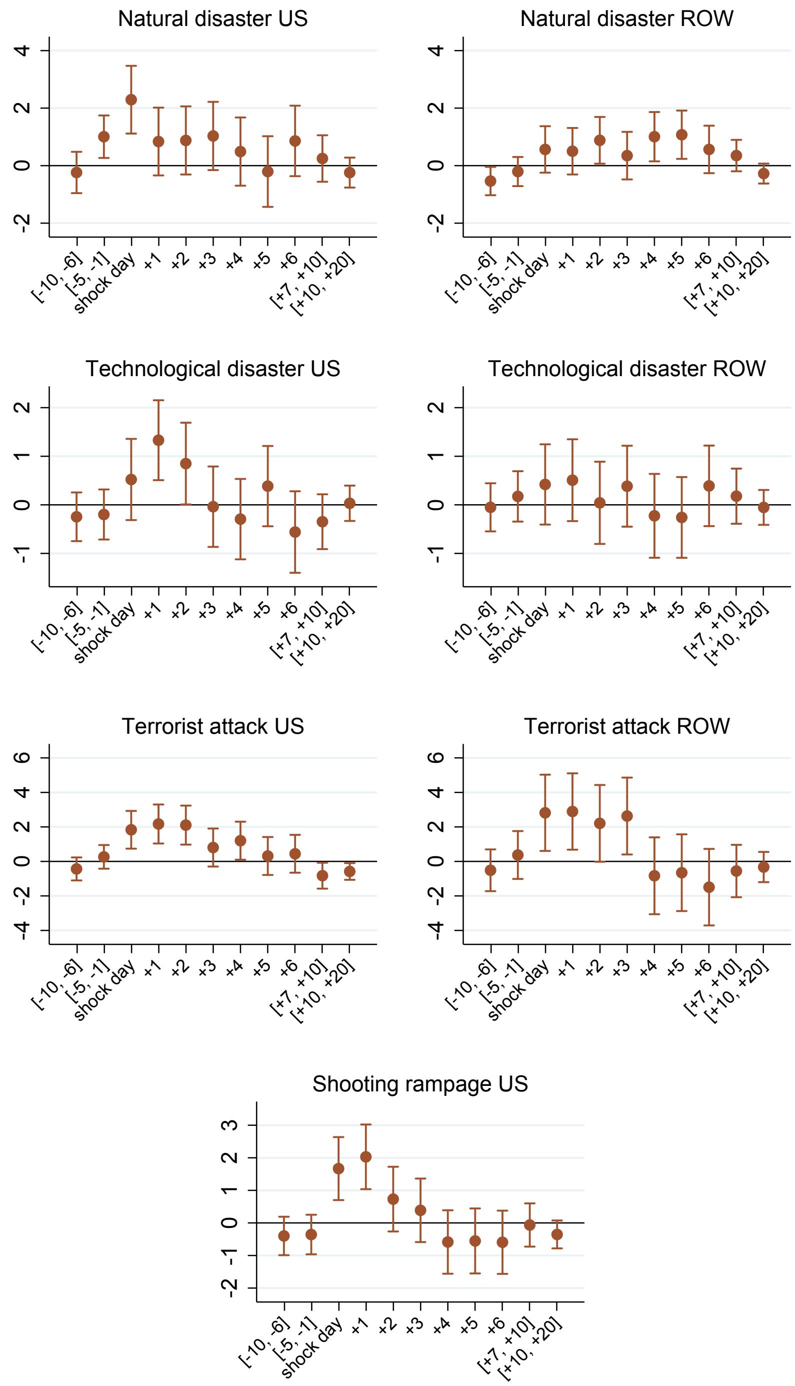
Based on the actual crowding out effects following big shock events, we decide to define shock-specific time intervals for the relevant legislative votes. We think this is the most reasonable approach to appropriately distinguish between treatment and control votes (i.e., votes taken under low and high attention, respectively). Using the findings revealed by our analysis, we set the intervals for each type of shock as shown in Table 2. We are finally left with 62 treatment votes in the House of Representatives out of a total of 490, i.e., votes on the final passage of bills which take place in the relevant reporting time frames after serious shock events. For these votes, the treatment variable $Shock_j$ from our econometric specification (1) takes a value of one.

Table 2: The relevant reporting time frames following shock events

Type of shock	Region	Time frame	#Votes
Natural disaster	USA	[t+1, t+3]	6
	ROW	[t+2, t+5]	16
Technolog. disaster	USA	[t+1, t+2]	10
Terrorist attack	USA	[t+1, t+4]	13
	ROW	[t+1, t+3]	13
Shooting rampage	USA	[t+1, t+2]	10

Notes: We assign a vote to the treatment group (i.e., a vote taken under low attention) if it lies in the relevant time frame after a shock at time t. Six votes fall within two time frames.

Figure 3: News pressure following shock events in the United States, 2005-2013



Notes: The graphs show the effects on news pressure around the day of the shock for each type of shock event. The estimates are based on OLS regressions. The dependent variable of *daily news pressure* on different days or intervals around the shock is from Eisensee and Strömberg (2007). Table A4 in the Appendix shows the full regression outputs. 95% confidence intervals are included.

4 Main results

Based on the data compiled, we are able to answer five questions – 1) how representatives vote on bills, 2) how much money they got from interest groups interested in these bills, (3) how much electoral pressure they face regarding these bills, 4) whether there is a conflict of the type interest group versus voters and, 5) whether there was a serious shock event prior to the vote, strongly attracting the attention of media producers – allowing us to test our main hypothesis by estimation of model equation (1). Table 4 shows the OLS regression results for the different specifications. These range from the simplest one without any interaction term in column (1) to the most complete specification that includes the triple interactions in column (5).[36] Descriptive statistics for all variables that we use in our empirical analysis are presented in Table 3.

Table 3: Descriptive statistics for the main variables

Variable	Mean	Std. Dev.	Min.	Max.	N
Vote Yes	66.161	47.316	0	100	204,481
SIG Money Yes (net)	1.044	4.183	-54.92	107.624	204,481
SIG Money Yes (abs.)	1.697	3.978	0	107.924	204,481
SIG Money No (abs.)	0.652	1.937	0	56.27	204,481
Constituency Yes (net)	0.974	3.476	-39.818	63.917	204,481
Constituency Yes (abs.)	2.025	3.143	0	63.917	204,481
Constituency No (abs.)	1.052	1.950	0	40.467	204,481
Conflict	0.150	0.357	0	1	204,481
Shock	0.126	0.332	0	1	204,481

Notes: The money variables are in \$10,000 units; the constituency measures are in percentage points and (potentially) range from -100 to 100. *Conflict* is one if *SIG Money Yes (net)* $>$ 0 and *Constituency Yes (net)* $<$ 0 or vice versa. The unit of observation is representative-vote.

The reduced model in column (1) reveals that both campaign contributions from interest groups favoring the passage of a bill as well as support of constituents in favor of a bill increase the probability of a representative voting Yes. The coefficient estimated for special interests indicates that an additional \$42,000 of campaign donations (about one standard deviation) is associated with a 3.5 percentage point higher probability that the benefiting representative votes in favor of the position preferred by the donating interest groups ceteris paribus. This effect size is comparable to that associated with a one standard deviation change in the measure for district interests. In column (2), we replace the net money and district measures by the underlying gross numbers in absolute terms. Instead of calculating net support regarding a particular bill, we thus use the total amounts of campaign money in favor and against it. Likewise, voters' preferences are included based on the number of politically active citizens (i.e., campaign donors) supporting and opposing the bill, each divided by the total number of

[36]Note that we also estimate logit and probit models which yield similar results in terms of magnitude, sign and statistical significance. The estimates and average marginal effects are presented in Table A8 and Figure A5 in the Appendix.

donors in a given district. The results suggest that there might be larger effects on voting behavior if support comes from interests opposing a bill, both for special and constituent interests. However, if we test for differential effects at the level of one standard deviation, the effect sizes are not statistically significantly different at the 5%-level.[37] We proceed using the net variables.

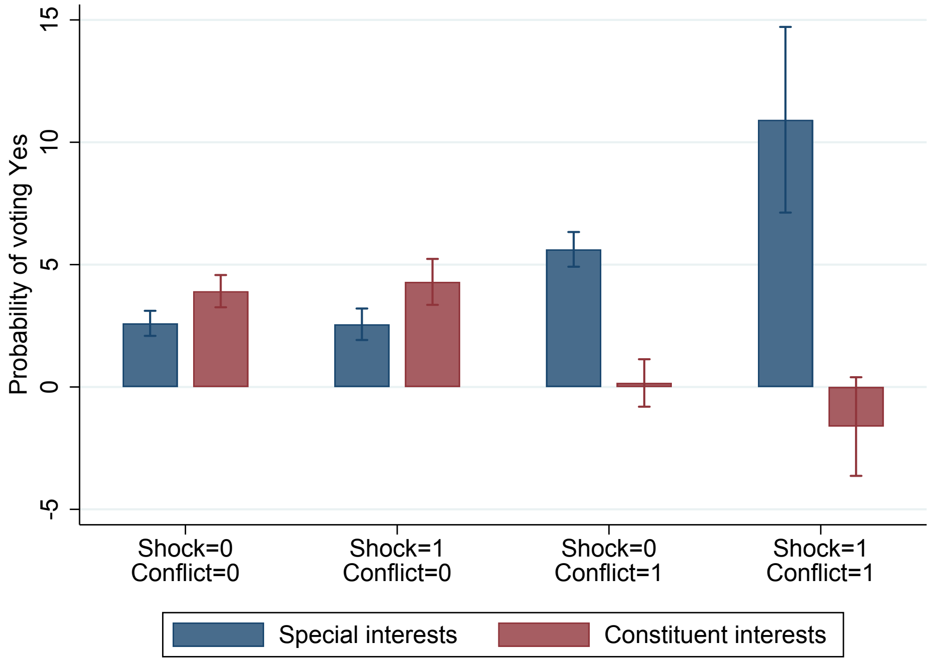
In column (3), we add the interaction terms with our indicator for low attention. If a vote is taken after a serious shock event, neither the effect of special interest money, nor the effect of constituent interests changes. The next model in column (4) reveals that conflicted representatives (i.e., their donors and voters disagree) follow the preferences of their donors with greater likelihood and the preferences of their constituents with less when voting on legislative proposals. Quantitatively, the marginal effect of money from special interests increases by 134%. An additional \$42,000 of campaign donations now increases the probability of supporting the position of special interests by 6.1 percentage points. In contrast, the impact of voters' interests goes down to zero, compared to a situation without conflict. Higher voter support of a bill is not related to a higher probability to vote Yes.

Finally, the model in column (5) includes all simple interaction terms along with the triple interactions. When constituency and interest group positions diverge *and* if the vote takes place right after a shock event reducing media attention, money from special interests is even more effective in affecting a representative's voting behavior. For a net difference of one standard deviation (roughly \$42,000), the probability of voting Yes increases by around 5.3 percentage points. Interestingly, the triple interaction with constituents' interests is negative, i.e., if more voters oppose a bill in conflict with the preference of special interests, representatives are even more likely to vote against them after a shock event. This suggests that representatives want to accommodate special interests even more when they have the opportunity to do so due to limited media attention if they otherwise face strong pressure from the voters. While we have to be careful not to over-interpret the negative effect, it provides clear evidence that constituents' preferences are disregarded by their representatives when in conflict with special interests and even more so if there is little attention on politics.

Figure 4 summarizes the results captured in the specification presented in column (5) and shows the effects of special and constituent interests on representatives' voting decisions for all four possible constellations. Each bar depicts the effect of a one standard deviation change in the special and constituent interests measure, respectively, on the probability that the corresponding representative votes in their interests. If special interests and the majority of voters share the same position regarding a particular bill in the first constellation, bigger support from both sides are related to a higher probability that the representative is also supporting the bill. For special interests this effects amounts to 2.6

[37]To shed additional light on the possible differential effects of moneyed interests on representatives' voting decisions, we estimate a model with dummy variables for different intervals of money in favor and against particular bills. Figure A2 in the Appendix shows the estimated coefficients for these dummies (the reference category is no money at all for a specific vote). We find that pressure against bills in each range is associated with a slightly stronger reaction of the representatives than the same pressure in favor of bills. The point estimates are 30 to 40% larger.

Figure 4: The effects of special and constituent interests on representatives' voting behavior in the US House of Representatives, 2005-2014



Notes: The graph illustrates the differential effects of special and constituent interests on representatives' voting behavior, depending on whether the vote is taken after serious shock events and on whether the representative faces a conflict of interest (i.e., special and constituent interests are at odds regarding a particular bill). Each bar shows the effect of a one standard deviation change in the special or constituent interests variable on representatives' voting decisions. The underlying results are taken from column (5) in Table 4. 95% confidence intervals are included.

percentage points, for constituents' interests the corresponding effect amounts to 3.9 percentage points. If representatives decide after a shock event, the correlations between special/constituent interests and representatives' voting behavior remain unchanged. This is still for a constellation without a clear conflict. If there is a conflict, i.e., in case of the third and forth constellation, money from special interests turns out to make an even bigger difference when predicting roll call voting. During periods of normal attention, one standard deviation (about $42,000) more money from special interests is associated with a 5.6 percentage points higher probability that the representative will take on the donors' position. In the situation where a representative faces a conflict of interest *and* the vote is taken after a shock event, the same amount increases the probability of a representative voting with the donors' position by 10.9 percentage points. In contrast, for bills on which special interests and constituents disagree, stronger support from the constituents does not translate into a higher probability of representatives' voting in favor of the bill. On the contrary, during phases of limited media attention, it even seems that stronger constituency preferences are more likely to be disregarded, potentially to compensate special interests that are difficult to accommodate under conditions of media attention. However, this latter effect is not statistically significant different from zero.

Table 4: Attention and interest representation in roll call voting in the US House of Representatives, 2005-2014

Dependent variable: *Vote Yes* [0/100]	(1)	(2)	(3)	(4)	(5)
SIG Money Yes (net)	0.826***		0.818***	0.617***	0.622***
	(0.069)		(0.069)	(0.061)	(0.062)
SIG Money Yes (abs.)		0.600***			
		(0.062)			
SIG Money No (abs.)		-1.638***			
		(0.087)			
SIG Money Yes x Shock			0.069		-0.009
			(0.063)		(0.064)
SIG Money Yes x Conflict				0.826***	0.723***
				(0.076)	(0.072)
SIG Money Yes x Shock x Conflict					1.275***
					(0.446)
Constituency Yes (net)	0.901***		0.900***	1.139***	1.127***
	(0.090)		(0.090)	(0.098)	(0.097)
Constituency Yes (abs.)		0.655***			
		(0.083)			
Constituency No (abs.)		-1.541***			
		(0.133)			
Constituency Yes x Shock			0.009		0.109
			(0.084)		(0.094)
Constituency Yes x Conflict				-1.146***	-1.079***
				(0.128)	(0.132)
Constituency Yes x Shock x Conflict					-0.622**
					(0.299)
Conflict				-1.388***	-1.387***
				(0.254)	(0.253)
Representative x Party-of-Sponsor FE	X	X	X	X	X
Vote FE	X	X	X	X	X
Observations	204,481	204,481	204,481	204,481	204,481
Adjusted R^2	0.586	0.587	0.586	0.587	0.587

Notes: OLS regressions with robust standard errors clustered by representative in parentheses. See Table A8 in the Appendix for logit/probit estimations of column (5). * p<0.1, ** p<0.05, *** p<0.01.

5 Robustness

We test the robustness of our main results in several ways. First, we propose alternative codings for both the special and constituent interests measure (*SIG Money Yes* and *Constituency Yes*). Second, we use another plausible estimation model where congruence between representatives' voting decisions and constituent interests is the dependent variable. Third, we vary the level of intensity in our measures for *Shock* and *Conflict* by contrasting strong versus moderate shock activity and separating a clear conflict situation from a situation where no conflict is likely. Fourth, we test whether we can also observe effects beyond the relevant reporting time frame we have defined, or whether our effects are actually tied to days when shock events crowd out other news segments. Fifth, we perform a placebo test in which we randomly assign the legislative votes to the shock treatment group, instead of relying on databases on big distracting events. Finally, we estimate our baseline specification using logit and probit models, and calculate the average marginal effects on the impact of special and constituent interests on representatives' roll call decisions.

5.1 Alternative codings for special and constituent interests

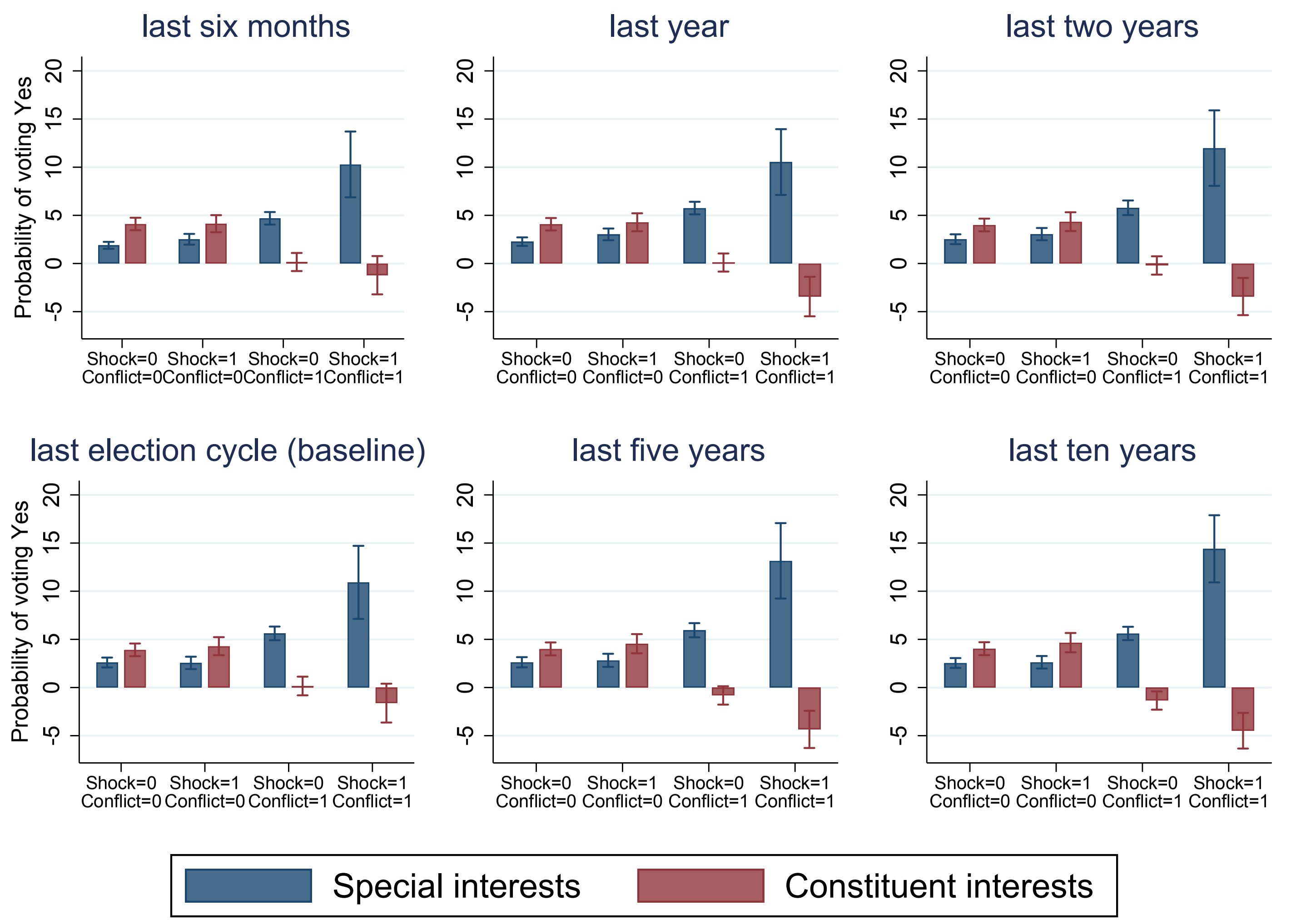
Aggregating special interest money over different time periods

With our special interests measure (*SIG Money Yes*) we want to capture a representative's long-term exchange relationship with organized interests. As the choice of a time-frame to aggregate donations in order to capture long-term exchange relationships is rather arbitrary, we test the sensitivity of our results with regard to the choice of the time interval within which we count all campaign contributions a representative receives in the run-up to a vote. In our baseline specification, we use the last election cycle. In addition, we now also consider the last six months, the last year (excluding the month of the vote), the last two years, the last five years and the last ten years, respectively, when constructing *SIG Money Yes*. Figure 5 depicts for each aggregation (analogous to Figure 4) the differential effects of special and constituent interests on representatives' voting behavior, depending on whether a representative is conflicted and/or on whether the vote is taken after serious shock events.[38]

Regarding the magnitude of the effects of money from special interests (as well as the effects of the constituency) for changes by one standard deviation, they barely differ across the various aggregations. They all show that when a representative faces a conflict of interest and the vote takes place under low attention, money from special interests strongly affects voting behavior. These results suggest that the long-term relationships are well reflected in the money flows within the last election cycle (or even

[38] Based on the newly calculated variables for money flows from special interests, we also adjust our conflict indicator, i.e., a representative faces a conflict of interest if, for example, within the last year or the last six months (depending on the chosen time interval) she received a positive net amount of campaign donations from groups supporting the bill and at the same time the electorate is against the bill in net terms (or the other way around).

Figure 5: Robustness – Applying different time frames with respect to the special interests variable
Campaign donations are aggregated over the ...



Notes: The graphs illustrate the differential effects of special and constituent interests on representatives' voting behavior, depending on whether the vote is taken after serious shock events and on whether the representative faces a conflict of interest (i.e., special and constituent interests are at odds regarding a particular bill). Each specification applies a different time interval for the money flows a representative received in the run-up to a vote from groups that have documented positions regarding the bill. The effects were calculated using changes in the explanatory variables by one standard deviation. 95% confidence intervals are included.

a shorter time period) and that they are honored over fairly long time periods. In fact, the estimated effect of a one standard deviation increase in the (net) financial support from special interests is largest when money flows over a ten year period are considered.

Aggregating individual campaign funds from constituents

As an alternative approach to capturing the electorate's preferences with regard to specific bills (*Constituency Yes*), we aggregate all the campaign donations that were made by individuals in the representative's district with links to groups interested in a particular bill ($-amount of net support divided by total donations), instead of using the weighted number of donations (taking into account that the same individual might donate several times) as in our baseline specification.[39] The argument is that wealthier donors contribute larger amounts of money and may have generally more influence, since they are the more attentive voters and may be more willing to withdraw support from representatives who deviate from their preferences. Wealthy donors may also convince others to stand up for or withdraw support from the incumbent representative.[40] Figure 6 shows the corresponding results if we use the alternative measure for voters' preferences. We do not discern systematically different results when more weight is given to the potential influence of wealthy donors. Voters' preferences are similarly disregarded in the case of a conflict with the preferences of special interests. In fact, the effect sizes for a one standard deviation change in the explanatory variables lie within the confidence intervals of the baseline estimations.

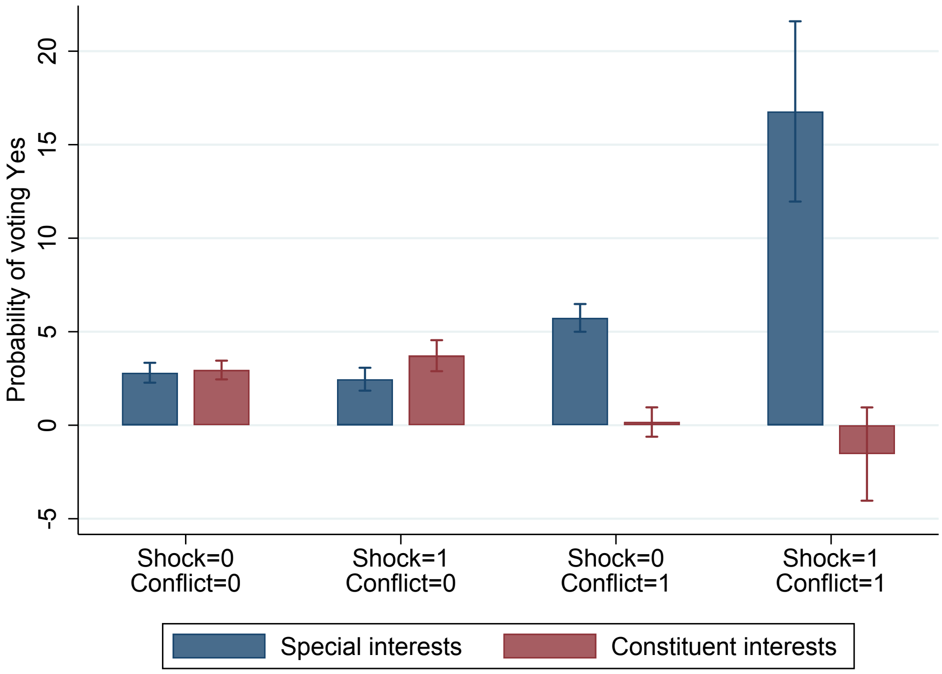
5.2 Alternative estimation model

A potential concern with our baseline model (1) is that we give too much weight to some observations due to the measured intensity in our variables for special and constituent interests. As Figure 2 illustrates, there are some outliers, especially in the measure for special interests. To test whether concerns of intensity affect the interpretation of our findings, we estimate the following model

[39] We do not exclude refunds here, since it is important to consider the net amount actually donated. In the case of donations to presidential candidates, we consider (as in the baseline measure) the structure of donations in the two years before the last presidential election (instead of the last congressional elections).

[40] Note that the individual donations considered are moderate sums. In US federal elections, there is a limit to the maximum amount that a citizen can donate to candidates or PACs within an election cycle. In the 2013-14 election cycle, an individual was allowed to contribute a maximum of $2,600 to federal candidates throughout the election cycle, and up to $5,000 to PACs and $32,400 to national party committees per year (`https://transition.fec.gov/info/contriblimitschart1314.pdf`). In the underlying data, the median donation amounts to $500, the 90th percentile is $1,500, with only one percent of donations greater than $2,600.

Figure 6: Robustness – Using an alternative measure for constituent interests



Notes: The figure illustrates the differential effects of special and constituent interests on representatives' voting behavior, depending on whether the vote is taken after serious shock events and on whether the representative faces a conflict of interest (i.e., special and constituent interests are at odds regarding a particular bill). Each bar shows the effect of a one standard deviation change in the special or constituent interests variable on representatives' voting decisions. 95% confidence intervals are included.

specification, which disregards the intensity in *SIG Money Yes* and *Constituency Yes*, and instead focuses on the two binary variables *Congruence* and *Conflict*:

$$\begin{aligned} Congruence_{ij} = \alpha_0 + \alpha_1 Conflict_{ij} + \alpha_2 Conflict_{ij} \times Shock_j \\ + Representative_i \times \alpha_{3i} Party\text{-}Conflict_{ij} \\ + Vote_j \, FE + \eta_{ij}. \end{aligned} \tag{2}$$

The indicator $Congruence_{ij}$ is set to 100 if the observed representative votes with the constituency, i.e., if $Constituency\ Yes_{ij} > 0$ and the representative is voting in favor of the bill (or vice versa).[41] The variables $Conflict_{ij}$ and $Shock_j$ are defined as in our baseline specification and indicate, accordingly, whether a politician is facing monetary interests that are against the preference of the electorate (*SIG Money Yes (net)* > 0 and *Constituency Yes (net)* < 0 or vice versa), and whether vote j takes place after a distracting shock event. In order to control for representative ideology in this setting

[41] In 9% of the sample, we cannot identify a single individual donor who is assigned to a group that has a position regarding the bill her representative is voting on. We set *Congruence* to one in such cases, arguing that the constituency has no strong (bill-specific) policy preferences. However, excluding those observations from the analysis does not change the results.

(for example, Republicans are both more likely to get funds from the oil industry and to vote, for ideological reasons, against economic interventions to promote alternative energies), we define the variable *Party-Conflict*. It takes a value of one if the constituency disagrees with the position the representative should adopt based on the party she is affiliated with. We allow the coefficients on *Party-Conflict* to vary across representatives, thus measuring the individual-specific willingness to vote with the party if her electorate is against the party's stance. In order to include the intensity of such a party conflict, we use information on the co-sponsorship of particular bills. If there is a conflict between party ideology and constituent interests, it should be weaker, the more members of a representative's own party sign the bill as co-sponsors. The following example clarifies this idea: Suppose a Democrat faces the decision to vote on a bill sponsored by a Republican. The constituency of the representative supports the bill in net terms (*Constituency Yes* > 0). In addition, many Republicans, but also a few Democrats appear as co-sponsors of the bill, indicating some bipartisanship. In this case, the conflict between the representative's party and the electorate is weaker than if there were no members of her own party backing the bill. Empirically, we count the number of co-sponsors of the representative's own party and divide them by the total number of co-sponsors regarding a particular bill. Starting from a situation where there is a conflict between the representative's party and the electorate, we subtract this calculated share (i.e., the degree of bipartisanship) from one. The resulting measure for *Party-Conflict* thus takes values between zero and one. In the most extreme case, when only members of the representative's own party appear as co-sponsors of a bill from the other party, *Party-Conflict* is zero. If, on the other hand, there is no co-sponsor of the observed representative's party (or no co-sponsor at all), the measure takes a value of one.[42]

To complete our control strategy, we include fixed effects for each vote. It may be that congruence with voters' preferences is generally higher for reasons that we cannot capture in our model. For example, as Lindstädt and Vander Wielen (2014) show, the election cycle might be an important factor here. They find evidence that majority leaders are less likely to schedule votes that divide the parties when the threat of electoral sanctions due to partisan behavior is high, namely when elections are imminent. Any effect of *Conflict* (voters and special interests disagree) on representatives' probability of voting congruently with the constituency is therefore identified by changes within a particular vote and holding the impact of party pressure constant. As in our baseline model, we cluster standard errors at the representative level.

The OLS regression results in Table 5 reveal that conflicted representatives tend to take the preferences of special interests rather than that of their voters into account. Consistent with our main theoretical predictions, voters lose even more if the vote is taken after distracting shock events. The results are consistent across specifications with a more or less sophisticated control strategy. In

[42]Note that we plausibly do not correct for the degree of bipartisanship if the bill's sponsor is affiliated with the same party as the observed representative.

column (2) *Party-Conflict* is included as a zero-one indicator, in column (3) as a continuous variable considering the intensity of a possible party conflict. Overall, in case of a conflict between voters and moneyed interests, the probability of voting in congruence with constituents decreases by about 14-15 percentage points (the mean value of the variable *Congruence* being 64.5%). As the coefficients on *Conflict* × *Shock* indicate, this effect increases to 18-19 percentage points if the vote is taken right after a distracting shock event.[43]

Table 5: Alternative model: The effect of limited media attention on the probability of conflicted representatives to vote in congruence with their constituents

Dependent variable: *Congruence*	(1)	(2)	(3)
Conflict	-42.37***	-14.14***	-15.00***
	(0.694)	(0.394)	(0.415)
Conflict x Shock	-4.472***	-5.096***	-2.774***
	(0.929)	(0.639)	(0.654)
Representative FE × Party-Conflict (0/1)		X	
Representative FE × Party-Conflict (cont.)			X
Vote FE	X	X	X
Observations	204,481	204,481	204,481
Adjusted R^2	0.221	0.597	0.555

Notes: OLS regressions with robust standard errors clustered by representative in parentheses. *Congruence* has a mean value of 64.476, *Conflict* 0.150, *Shock* 0.126, *Party-Conflict (0/1)* 0.415 and *Party-Conflict (cont.)* 0.346. * p<0.1, ** p<0.05, *** p<0.01.

5.3 Shock and conflict intensity

We examine whether our main findings are robust to (and qualitatively consistent with what we would expect under) different treatment intensities regarding shock and conflict. In particular, we test 1) whether our results are indeed driven by the legislative votes which took place after the events that crowd out most news, and 2) whether the clearest conflict situations according to our measures for special and constituent interests also exhibit the most pronounced effects.

[43]The average representative effect in specification (3) is about -62, i.e., if the party the representative is affiliated with disagrees with the position of the electorate (and the bill receives no bipartisan support), the probability of voting in congruence with constituents decreases by 62 percentage points.

Shock intensity

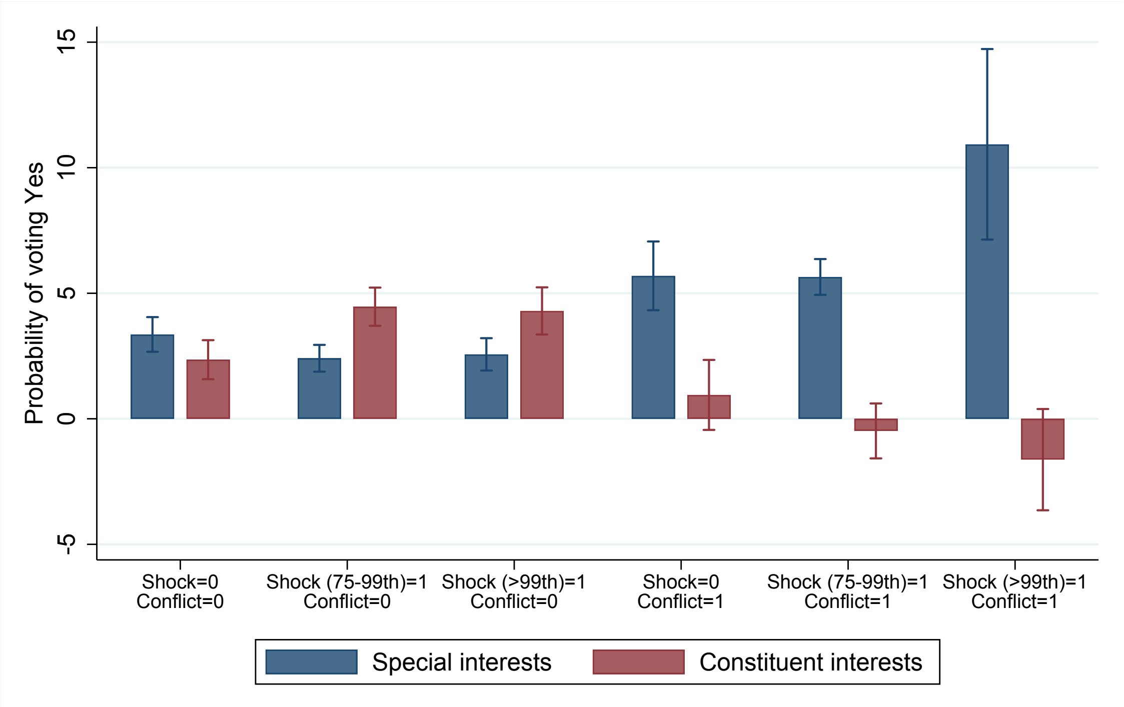
In order to take into account a broader set of shock events, we select events with less severe outcomes than the ones in our main analysis. This weak shock treatment group contains all the votes after days on which the number of deaths caused by a particular event type lies between the 75th and 99th percentile (in addition to our baseline shock indicator that only considers votes that took place after the most serious events above the 99th percentiles). Note that for all event types in the US, the number of deaths is zero on more than 99 percent of the days between 2005-2014 (and we do not use distributions for shooting rampages) – see Table 1. Accordingly, the newly-defined shock group, referred to as *Shock (75-99th)*, will only include votes that took place after natural disasters and terrorist attacks in the rest of the world.[44] The constructed additional indicator is one in 64.4% of the observations in our sample, compared to *Shock (>99th)* which is one in 12.6% of all votes. In Figure 7 we present the differential effects of special and constituent interests on representatives' roll call voting decisions under all six possible constellations (the full regression output is reported in Table A6 in the Appendix). When representatives face no conflict, we find that the effect of special interest money on voting yes is rather similar independently of whether there is limited attention on politics. If anything, the effect of special interest money is slightly lower compared to the reference category (no-to-little shock activity) if medium or high shock activity prevails. Regarding voter interests, they seem to gain in predictive power during periods of limited attention to politics. If voters' and special interests' preferences are not aligned, the impact of money increases sharply as observed before. However and importantly, there is no difference in the effect on whether there is no shock or medium shock activity. The differential effect only occurs after serious shock events. In sum, consistent with our theoretical framework, we find the strongest reactions in representatives' roll call decisions if attention to politics is substantially reduced after severe events, but not otherwise.

Conflict intensity

In order to vary conflict intensity, we distinguish a clear conflict from an ambiguous situation where our measures for special and constituent interests are close to zero (referred to as *Tension*). We define the indicator *Clear Conflict* that takes a value of one if *SIG Money Yes* > 0.5 and *Constituency Yes* < -0.5, or *SIG Money Yes* < -0.5 and *Constituency Yes* > 0.5 (i.e., if special interests that favor the bill donated more than \$5,000 in net terms and more than 0.5% of the donating individuals in the constituency oppose the bill, or vice versa). *Tension* is equal to one if either *SIG Money Yes* or *Constituency Yes*

[44] For natural disasters in the rest of the world, the number of deaths is zero on 83.4% of the days (thus we only consider days between the 83.4th and 99th percentile here); the threshold for terrorist attacks in the rest of the world is 29 deaths (75.1%).

Figure 7: Robustness – Shock intensity

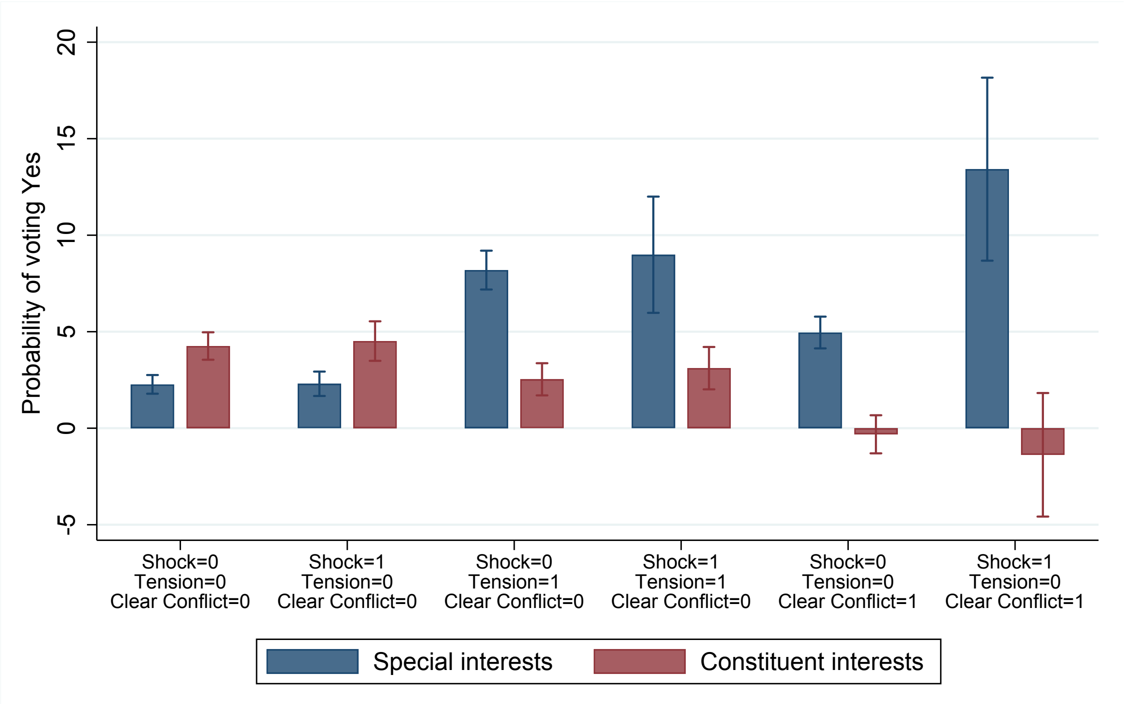


Notes: The graph illustrates the differential effects of special and constituent interests on representatives' voting behavior, depending on whether the vote is taken after serious (>99th) or moderate (75-99th) shock events and on whether the representative faces a conflict of interest (i.e., special and constituent interests are at odds regarding a particular bill). The effects were calculated using changes in the explanatory variables by one standard deviation. 95% confidence intervals are included. The full regression output is presented in the Appendix in Table A6 (column 2).

lies within -0.5 and 0.5. The control group therefore consists of cases where no conflict is likely. In addition, we assign cases where both *SIG Money Yes* and *Constituency Yes* take values of zero (mostly because we cannot assign any donating group and individual with preferences) to the control group.

With these newly defined indicator variables, we re-estimate our linear model. Figure 8 shows the effects of campaign money and voters' interests in all of the possible constellations a representative can face (full regression results are reported in Table A6 in the Appendix). When facing tension rather than no conflict, campaign donations are related to a systematically larger effect on representatives' voting behavior (even larger than with a clear conflict). The predictive power of constituent interests is reduced in a tension situation and completely lost in a situation of a clear conflict. Regarding the differing consequences of a shock event, the effect of campaign donations from special interests more than doubles in cases of clear conflict. In cases of tension, the increase is less than 10 percent and not statistically significant. These findings are in line with the theoretical reasoning that the fundamental trade-off between campaign donors and voters (and thus the relevance of attention) arises particularly if representatives face a clear conflict of interest. The results suggest that our approach approximates the preferences of these two pressure groups and the resulting conflict situations in a consistent and meaningful way.

Figure 8: Robustness – Conflict intensity



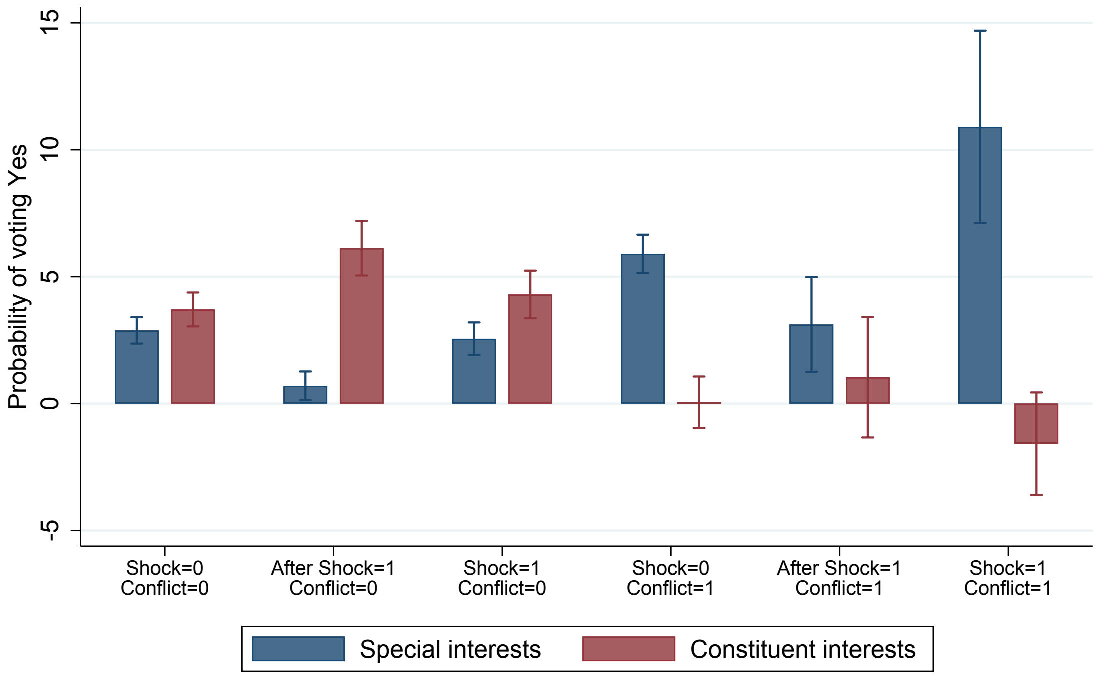
Notes: The graph illustrates the differential effects of special and constituent interests on representatives' voting behavior, depending on whether the vote is taken after serious shock events and on whether the representative faces a clear conflict of interest (i.e., special and constituent interests clearly disagree regarding a particular bill), or an ambiguous situation where our measures special and constituent interests lie close to zero (denoted *Tension*). The effects were calculated using changes in the explanatory variables by one standard deviation. 95% confidence intervals are included. The full regression output is presented in the Appendix in Table A6 (column 3).

5.4 Shock duration

More severe shock-events tend (as expected) to have a more pronounced effect on the representatives' calculation to vote in line with special interests, as shown above. In a similar vein, the distracting effect of each shock event is expected to fade out. So far, in our specification we even implicitly hypothesized that there would be no effect after the delimited shock period (see also Table A4). We test this by estimating our main specification with an additional treatment indicator, *After Shock*. It takes a value of one if the vote takes place one or two days after the end of the identified main news-crowding period (as defined in Table 2).[45] Figure 9 shows the estimated effects for our main specification. In cases of conflict, special interest money does not appear to have more, but, if anything, less influence after the relevant news-crowding period. This finding is congruent with our hypothesis and indirectly validates the choice of narrow periods with arguably less attention on politics.

[45] *After Shock* is one in about 8% of the observations in our sample. If the vote falls both on a day within the initially defined news crowding period of a shock event, and on a day that is one or two days after a relevant earlier shock period, we code *After Shock* with 0.

Figure 9: Robustness – Shock duration



Notes: The graph illustrates the differential effects of special and constituent interests on representatives' voting behavior, depending on whether the vote is taken in the relevant reporting time frame after serious shock events (Table 2) or on one of the two days after a relevant period has ended (*After Shock*), and on whether the representative faces a conflict of interest (i.e., special and constituent interests are at odds regarding a particular bill). The effects were calculated using changes in the explanatory variables by one standard deviation. 95% confidence intervals are included. The full regression output is presented in the Appendix in Table A7.

5.5 Placebo test

If voting behavior is analyzed for differential effects of campaign money and constituent interests, the same patterns for the effect of limited attention as reported in our main specification in Table 4 should be observed only rarely if the days considered shock days were to be randomly assigned. Based on this idea, we undertake a placebo test and randomly distribute the shock treatment days over all days with legislative votes in our sample (excluding real shock days). The number of placebo days is chosen in such a way that it matches the roughly 12% proportion of original treatment days. We perform this random assignment of placebo shock days 500 times and estimate our baseline model (1) for each draw.

The distributions of the estimated placebo coefficients are shown in Figure A4 in the Appendix. Regarding the triple interaction *SIG Money Yes* × *Placebo* × *Conflict*, the empirical p-value is 0.06, i.e., in only 6% of the cases is the estimated coefficient larger than the estimated coefficient of 1.275 from our baseline estimation. The placebo test thus suggests that it is unlikely the finding that campaign money from special interests is more influential during the days after major shock events occurred by chance.

5.6 Logit and probit estimations

Representatives' voting decisions are binary in nature. In our baseline estimations we use the linear probability model to study its determinants. To test whether this approximation is an issue for our findings in qualitative as well as in quantitative terms, we re-estimate our main specification using the logit and probit model. As the results in Table A8 in the Appendix show, both models lead to similar results in terms of magnitude, sign and statistical significance of the effects.[46] In Figure A5 we present the average marginal effects of special and constituent interests on representatives' voting decisions for all combinations of shock and conflict that we can distinguish (each for a change of variables by one standard deviation). The effect graphs look very similar to those we get from the OLS estimates (Figure 4). If the preferred position of the representative's electorate is in conflict with that preferred by interest groups that provide campaign funds, \$42,000 or about one standard deviation more from special interests is, on average, associated with a five percentage point increase in the probability that the representative will vote in line with donor interests, while stronger constituent interests affect voting behavior very little. For a one standard deviation increase in support, the probability of voting Yes is only increased by one percentage point (compared to a non-conflict situation, where the voter effect of one standard deviation averages 3.5 percentage points). If there is distraction caused by shock events, the influence of special interest money increases to 11 percentage points in the case of conflict, an effect size that is exactly the same as in specification (5) in Table 4 based on OLS.

6 Mechanism: Agenda-setting versus individual short-term opportunism

So far, we have implicitly interpreted the observed patterns in voting behavior in terms of individual representatives' short-term opportunism. However, what if majority leaders take advantage of the limited attention caused by shock events and deliberately bring particular bills to the vote? On the one hand, the majority leadership might be directly pressured by organized interests to ensure passage of certain bills. On the other hand, majority party leaders might be aware of the fact that several of their party colleagues face a conflict of interest (special interest groups versus voters) in some upcoming votes. In order to improve their re-election chances, majority leaders would be inclined to time these votes in such a way that conflicted colleagues are less likely to be punished by voters when they vote against their electorate's interests. The institutional setting in the House of Representatives would

[46]Note that the number of observations is reduced by just under 3,000 compared to OLS, since there is no variation in the outcome variable for some representatives, e.g., Republican representatives who always agree to bills that were sponsored by Republicans. We exclude such perfect predictors from the sample, as they would result in infinitely large maximum likelihood estimates.

theoretically allow for a short-term change of the agenda along these lines.[47] The body responsible for such changes is the Rules Committee, which disproportionately comprises members of the majority party, and thus to a substantial degree is under the control of the majority leadership. In particular, it is the Speaker of the House who exercises control over the Rules Committee.[48] The former Speaker Thomas P. O'Neill (1977-1987) described the role of the Rules Committee as follows: "What makes the Rules Committee so important is that it sets the agenda for the flow of legislation in the House and ensures that the place runs smoothly and doesn't get bogged down."[49] Issues that are highly sensitive to organized interests, but likely conflict with the public's interest, could thus be affected by strategic short-term agenda-setting through the Rules Committee. We investigate this mediating factor based on two tests.

Timing of votes with many conflicted representatives

First, based on our theoretical considerations, majority leaders should primarily have an incentive to push the Rules Committee to change the agenda if special interests have strong preferences that a particular piece of legislation be passed when large parts of the electorate are against it – but not the other way round. This follows from the idea that interest groups are very well informed about the voting behavior of the representatives they support, while voters' level of information depends on the availability of political news, which is affected by media producers' judgments as to relative newsworthiness. To test whether such bills are more likely to be voted on after shock events, we count for each vote the number of representatives who face a conflict of the type *interest groups Yes and voters No* (i.e., *SIG Money Yes* > 0 and *Constituency Yes* < 0), denoted as *#AS-Conflicts* (number of agenda-setting conflicts). We use this variable as well as a 0/1-indicator, taking a value of one if *#AS-Conflicts* is positive, as a dependent variable to test the agenda-setting hypothesis with two

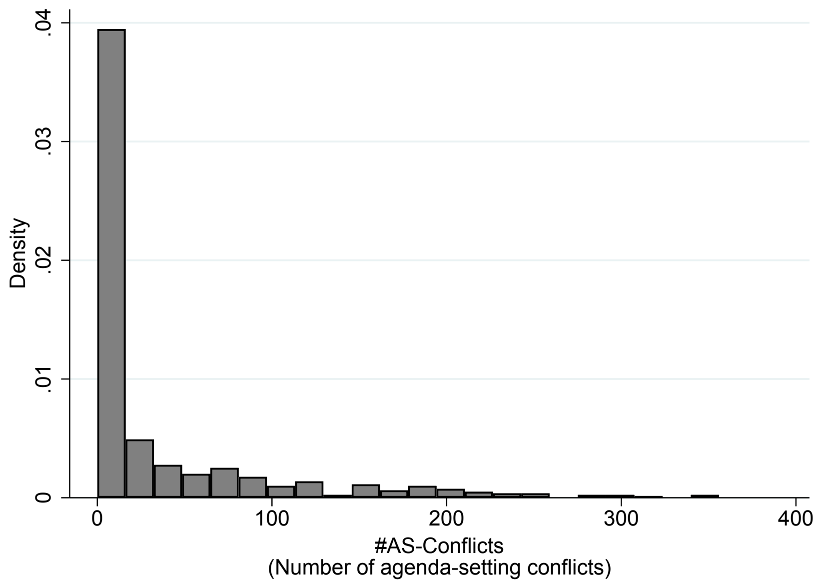
[47]The study of Lindstädt and Vander Wielen (2014) finds evidence consistent with the hypothesis that majority party leaders strategically schedule votes that divide the parties when elections are far off. In their theory, parties want to avoid situations in which representatives face the decision of showing party loyalty or not, due to the electoral costs of party loyalty shortly before the elections. This kind of agenda-setting, however, seems rather long-term, and differs from the short-term change of the agenda after major shock events, which we have in mind.

[48]After a bill is introduced in the House of Representatives, it is sent to a Committee and Subcommittee for hearings, recommendations regarding amendments, and reporting. When a bill returns from the Committee, it is not sent directly to the House floor. In particular, the Rules Committee schedules when a specific bill comes to consideration on the floor, and sets the rules concerning amendment limitations and the amount of debating time that is allocated to each bill. After a simple majority of the entire House approves the rule, the bill is ready for debate, possible voting on amendments, and final passage voting (`https://www.congress.gov/legislative-process` and `rules.house.gov`).
Note that if a bill has previously been in the Senate and is brought back to the House with proposed amendments (usually it comes to a so-called "Conference Report"), the Rules Committee again issues a rule or a special order is used (both require the approval of a simple majority of the entire House) to bring the amended version of the bill to debate and final vote. We have 45 bills in our sample that were returned in an amended Senate version (six of them were even voted on several times).

[49]Quoted in `https://archives-democrats-rules.house.gov/Archives/pre20th_rules.htm#N_4_`.

alternative specifications. Figure 10 depicts the distribution of *#AS-Conflicts* for the 490 votes in our sample. A high number of agenda-setting conflicts can be observed for only a small number of votes, but for just over half of them, we observe at least one representative who faces an AS-conflict.

Figure 10: The number of conflicted representatives per vote (*#AS-Conflicts*)



Notes: The figure shows the distribution of the vote-specific characteristic *#AS-Conflicts*. The latter captures the number of representatives that face a conflict of type *special interests Yes and voters No* (i.e., *SIG Money Yes* > 0 and *Constituency Yes* < 0). The sample involves 490 votes.

The regression results in Table 6 reveal that, on average, there is no higher number of agenda-setting conflicts (or a higher probability of a positive number of conflicts) for the votes that are taken after shock events. This finding holds if we only use the number of agenda-setting conflicts for representatives affiliated with the majority party (as one might argue that majority leaders care more or are better informed about the conflicts their party colleagues face).

Elapsed time between first consideration and final passage

As an additional test of the agenda-setting hypothesis, we examine the elapsed time between a bill's first consideration in the House and its final passage vote. If strategic short-term agenda-setting takes place right after shock events, the bills that are decided during the days with limited media attention are expected to reach their final vote faster (on average) than any other bills. Majority leaders may, for example, convince their party colleagues not to use up the time available for the debate or to withhold amendments which would otherwise delay the process. Any effect might, however, be more pronounced for those bills where many representatives face special interests that favor the bill and a constituency that is against the bill. For bills whose consideration by the House was initiated only after the shock event, the Rules Committee may provide a rather restrictive rule, i.e., a rule that limits

Table 6: Test of a possible agenda-setting mechanism: Number of agenda-setting conflicts

Dependent variable:	#AS-Conflicts	#AS-Conflicts>0	#AS-Conflicts (Majority Party)	#AS-Conflicts>0 (Majority Party)
Shock	-4.242	-2.904	-0.0484	-0.0433
	(8.880)	(6.379)	(0.068)	(0.068)
Observations	490	490	490	490
R^2	0.001	0.000	0.001	0.001

Notes: OLS regressions with standard errors in parentheses. *#AS-Conflicts* refers to the number of individual representatives who face an agenda-setting conflict in any given vote. *#AS-Conflicts>0* is a binary indicator taking a value of one if the number of agenda-setting conflicts per vote is positive. The mean values for *#AS-Conflicts*, *#AS-Conflicts>0*, *#AS-Conflicts (Majority Party)* and *#AS-Conflicts>0 (Majority Party)* are 36, 0.49, 25 and 0.46. The unit of observation is vote. * p<0.1, ** p<0.05, *** p<0.01.

the debate time and/or the possibilities for amendments. For each bill, we count the days between the first consideration in the entire House (initiated by the Rules Committee) and the vote on final passage. For the bills that have been voted on several times (as they originated in the Senate, came back to the House in an amended Senate version, or did not get a majority in a first vote), we count the elapsed days between the renewed consideration and the final vote. In most cases, first consideration (or re-consideration) and final voting are on the same day (the average elapsed time is 0.37 days). The results of a regression analysis in Table 7 show that there are no systematic differences in the elapsed time for either votes taken after shock events and votes exhibiting a higher or lower number of representatives who face an agenda-setting conflict. Moreover, a high number of conflicts combined with distraction by shock events does not seem to be associated with agenda-setting by majority leaders. This finding holds if we restrict the sample to bills that were only voted on once in the House. Against the background of successful negotiations between the House and the Senate, attention might become a less important factor.

Overall, the results of both tests speak against the hypothesis that short-term agenda-setting mediates the effect of attention on the influence of special interests. Our main finding for the effect of limited attention on the voting behavior of conflicted representatives instead seems due to individual representatives' short-term adjustment of their voting behavior.

Table 7: Test of a possible agenda-setting mechanism: Elapsed time between a bill's first consideration and final passage vote

Dependent variable:	Elapsed Time (all votes)	Elapsed Time (voted on only once)
Shock	-0.111	0.0422
	(0.185)	(0.147)
#AS-Conflicts	-0.0014	-0.0006
	(0.001)	(0.001)
Shock x #AS-Conflicts	0.0010	0.0006
	(0.003)	(0.002)
Observations	490	380
R^2	0.005	0.002

Notes: OLS regressions with standard errors in parentheses. The second model only considers the bills that were voted on only once. *Elapsed Time (all votes)* ranges from 0 to 16 days (mean=0.37; SD=1.21), *Elapsed Time (voted on only once)* from 0 to 7 (mean=0.31; SD=0.87); the mean of *#AS-Conflicts* is 36, its standard deviation 65.3. * p<0.1, ** p<0.05, *** p<0.01.

7 Concluding remarks

The democratic process is fundamentally about serving citizens in decisions that lend themselves to being taken collectively. While interests of all kinds should be heard in this process, specific interests are often at an advantage. For some policy issues the interests of specific groups might diverge from the interests of a large part of the population, and concerns arise about interest groups having undue influence on policy making at the cost of consumers and taxpayers at large. Thus, the representatives' reliance on campaign finance donations for electoral success is one prominent avenue by which special interests can influence politics. However, representatives face a trade-off when relying on financial support from special interests in running campaigns and winning elections in exchange for policy favors, as they may be sanctioned by their constituents if they support policies that run against voters' preferences.

Our study shows that media attention is a crucial factor affecting this trade-off. Representatives are systematically more likely to vote against their electorate's policy preferences but more aligned with those of special interest groups that support them over time when media attention is drawn away from politics due to an exogenous shock event (such as a natural disaster hitting the US). This suggests that special interests can leverage their advantage in monitoring representatives during times of limited media attention on politics, an issue that has so far not been prominently discussed in the context of special interests politics. Importantly, constituent interests already lose out to special interests – if in conflict with them – when attention is not distracted from politics. In fact in such a situation, the empirical analysis shows that representatives' voting behavior is responsive to the amount of campaign donations from special interests, but not to the intensity of voter preferences.

Our findings open several avenues for further research in this context. First, if voters and special interests hold conflicting positions, aspects of the political process other than short-term fluctuations in attention to politics might cause representatives to adjust their voting behavior strategically. A promising line of inquiry might be to investigate whether legislators react to retrospective voters who tend to be myopic. Specifically, incumbents might prefer to cater to special interests right after elections but be more concerned with the electorate's interests close to an upcoming election. Second, information asymmetries between different types of (interest) groups in the population might deserve more attention in theoretical work on special interest politics as mass-based interest groups such as unions probably rely on different information flows than well-funded but comparatively small business interest groups. Finally, our findings raise some interesting issues regarding the role of media markets and media control in representative democracies. If attention to politics is an obstacle for special interests to overcome in influencing the political process when their preferences conflict with the desires of large fractions of the population, the value of owning/controlling media outlets wins a new and important facet. A large part of the new literature at the intersection of media economics and political economics focuses on how the media work as the 'fourth estate', keeping the elected officials in line with the interests of the voters (see, for example, Prat and Strömberg, 2013, and DellaVigna and Gentzkow, 2010, for excellent reviews of the arguments). Complementary literature suggests a different role of the media in democracies, i.e., the role of representing corporate interests in order to secure rents in the democratic process (see, for example, Herman and Chomsky, 1988, Gilens and Hertzman, 2000, and Corneo, 2006). Taken together, the modus operandi under which profit-oriented media outlets have to function – competition for the audience's attention and the necessary focus on newsworthy events – affect their role as the fourth estate and thus the role of special interests in politics.

Appendix

A.1 Data access

The data from the CRP is accessible through its website OpenSecrets.org. We collected the campaign finance data via the Sunlight Foundation's Influence Explorer. The original data set (consisting of federal campaign finance records between 1990 and 2014) is available online under `https://sunlightlabs.github.io/datacommons/#bulk-data`. The MapLight data is accessible via an API under `https://maplight.org/data_guide/bill-positions-api`. We accessed the data on June 26th, 2016.

A.2 Data compilation

Table A1: Excluded transaction types and interest group codes in the campaign finance data

Special interests measure

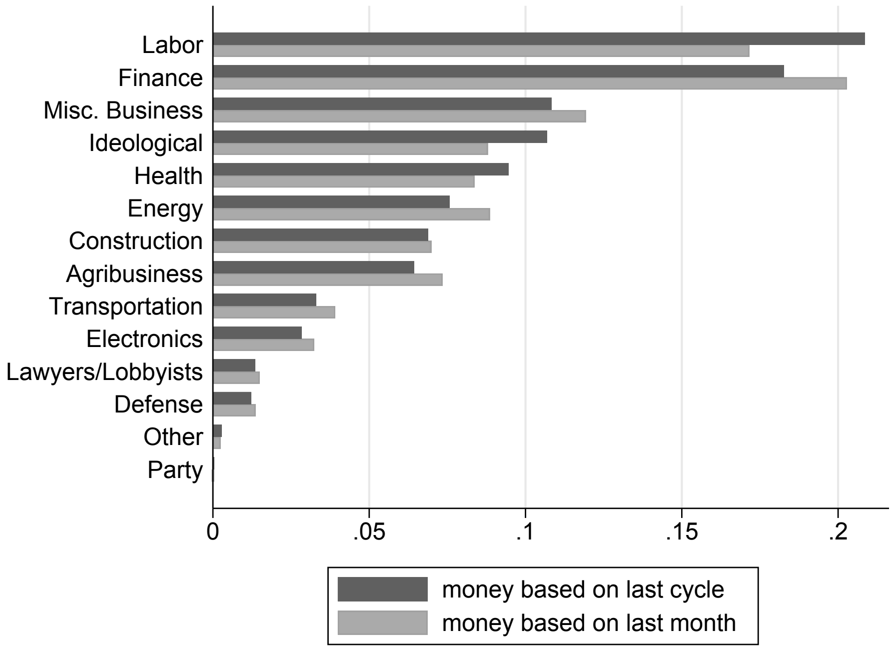
- Excluded transaction types: 16c, 20c, 22h (loans to candidates and loan repayments), 18g, 24g (transfers in from and out to affiliated committees), 24e, 24f (independent expenditures and communication costs), 24c (coordinated party expenditures), 29 (electioneering communications)
- Excluded group codes: Y0000, Y2000, Y3000, Y4000 (unknown category, no employer listed or impossible to assign category), Z9000, Z9100, Z9500, Z9600, Z9700, Z9800, Z9999 (non-contributing categories and candidate self-finance)

Constituent interests measure

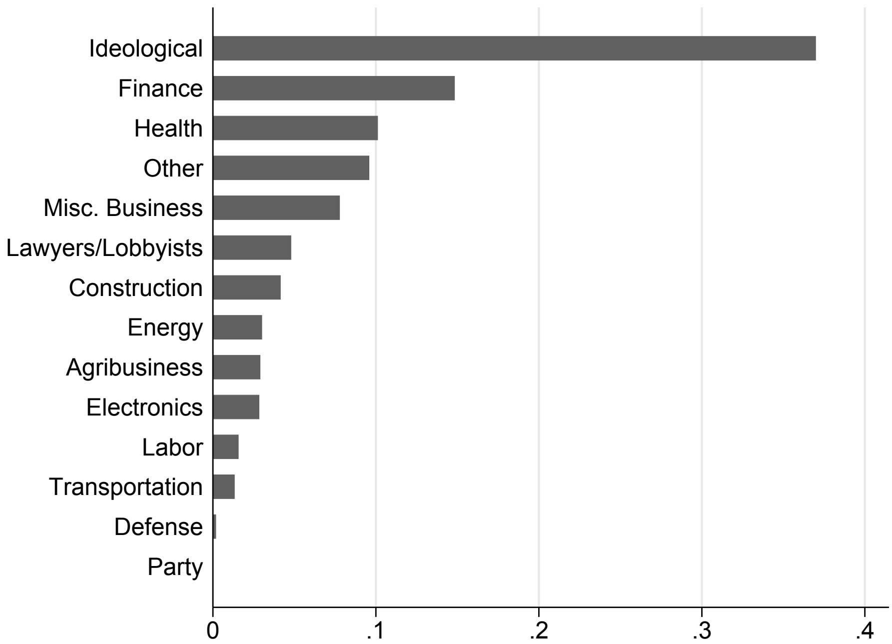
- Excluded transaction types: 10 (donations to Independent Expenditure-Only Committees, i.e., Super PACs), 10j, 11j, 15j (memo entries, i.e., the share of an individual's donation to a candidate or another committee previously donated to a joint fundraising committee; such donations would be counted twice if we kept these transactions), 19 (electioneering communications), 22y (refunds; for example, if the maximum limit allowed for donations has been exceeded by the individual, the surplus money is returned; we would count such cases doubly if we did not exclude these transactions)
- Excluded group codes: Y0000, Y2000, Y3000, Y4000 (unknown category, no employer listed or impossible to assign category; note that we count individuals assigned to these codes when we calculate the total number of individual donors in the constituency), Z9000, Z9100, Z9500, Z9600, Z9700, Z9800, Z9999 (non-contributing categories and candidate self-finance)

Figure A1: The relative strength of sectors in the special and constituent interests measures

(a) Special interests – Assigned campaign money per sector



(b) Constituent interests – Assigned individual campaign donations per sector



Notes: Each bar in figure (a) shows the share a particular sector makes up when aggregating all campaign donations that can be assigned to specific votes and made by groups in that sector (relative to the total assignable money by all groups). Figure (b) depicts the shares for the number of campaign donations made by individuals that we can assign to position-taking groups in each sector (relative to the total number of assignable individual donations). The sector *Other* includes education, civil servants, retired and non-profits. Figures on the total number of bill positions per sector are presented in Figure A3.

A.3 Determinants of representative-vote-specific campaign money

The amount of campaign money individual representatives receive from special interests is likely the result of some strategic considerations to effectively influence the political process. We are therefore reluctant to make strong interpretations of the correlation with voting behavior and concentrate on the interaction with exogenous variation in media attention. We still want to provide an understanding of the covariates related to these money flows. Accordingly, we estimate models where the dependent variable is the total amount of money that a representative received in the last election cycle before a particular vote from interest groups with a position regarding the bill (*SIG Money Yes* + *SIG Money No*). As explanatory variables we use party affiliation, majority status, seniority, a dummy indicating retirement at the end of the session, electoral security and ideological moderateness. We also include two bill-specific measures capturing i) the potential for conflict and ii) the extent to which the bill tends to affect economic (business groups, unions, trade associations) or ideological/partisan groups. We measure *Electoral Security* by the margin of victory in the representative's last election; *Ideological Moderateness* is the negative of the absolute distance of the DW-NOMINATE score to zero (higher values are thus associated with more moderate representatives); *Bill Conflict Potential* is the number of organizations taking positions regarding the bill (support/oppose/indifferent) minus the absolute difference between supporting and opposing organizations; *Bill Economic* is the number of economic interest groups with positions on the bill divided by the total number of interest groups (economic, ideological and partisan) that have documented positions. Table A2 provides descriptive statistics for all the variables we use in our analysis.

For each vote, a representative gets about $23,500 from organized interests supporting or opposing the bill, on average. The regression results in Table A3 show that Democrats receive, on average, $4,600 less compared with their Republican colleagues (over one election cycle). This is consistent with the fact that business PACs tend to favor Republican candidates, just as they outspend labor and ideological interests.[51] When we exploit variation within representatives in column (3) we find that being a member of the majority party is linked with an additional $1,800 in campaign money per vote. This is in line with Rudolph (1999) and Cox and Magar (1999) who argue that majority party status is an important institutional asset. The estimated coefficients on seniority and retirement emphasize the investment motive of interest groups when engaging in political spending. Our results indicate that ten more years in office are associated with $50,000 more for each vote. Surprisingly and counterintuitively, a representative who is serving her last term before retiring does not get less money than before. A likely explanation is that in our approach (which measures long-term exchange relationships) the timing of money transfer and legislative vote may be far apart (in the most extreme case, up to almost four years, for example when transfer takes place at the beginning of 2007 and the

[51] More than 70% of all PAC donations in the 2015-16 election cycle came from business PACs, where two thirds were to Republican candidates (`https://www.opensecrets.org/overview/blio.php?cycle=2016`).

vote before the elections in 2010). In such cases, at the time of donation, special interests often will not know that the supported representative is retiring after her next term. We therefore estimated a model where the dependent variable is representatives' last year campaign funds (instead of the last election cycle). This approach yields, as expected, a significantly negative coefficient on the retiring indicator. In the last year before the vote, retiring representatives receive on average \$5,300 less from groups that are interested in the bills they vote on, whereas all other findings do not change substantially.[52] Beyond that, a higher vote margin in the representative's last election leads to a decrease in vote-specific campaign funds: A 25 percentage point higher margin (one standard deviation) is associated with a loss of about \$2,000. This seems plausible against the background that political investors see their chance rather in contested races where candidates rely on well filled war chests. Snyder (1992) as well as Grier and Munger (1993) test seniority and electoral security (among other factors). Their results also indicate a positive relationship between representatives' time in office and aggregate campaign contributions they receive, and a negative correlation between electoral security and campaign funds. Likewise, ideological moderation is associated with more campaign funds (\$4,400 more for a position that is one standard deviation closer to zero in the DW-NOMINATE score). This suggests that interest groups may have stronger incentives to fund less extreme representatives whose voters are more likely to be located at the threshold between supporting and opposing a particular bill. As we have just one representative changing party in our sample and as ideological moderateness barely changes over time for a given representative, we exclude those covariates when we exploit variation within representatives. Finally and not surprisingly, a more contested bill as well as a higher share of economic organizations interested in the bill are correlated with more campaign money.

[52] The mean value for the amount of campaign funds that representatives receive in the last year before voting (excluding the month of the vote) is \$13,500, with a standard deviation of \$27,400. The additional results are available upon request.

Table A2: Descriptive statistics for the determinants of campaign money

Variable	Mean	Std. Dev.	Min.	Max.	N
Money Total	2.349	4.653	0	108.224	204,481
Democratic Party	0.506	0.5	0	1	204,481
Majority Member	0.555	0.497	0	1	204,481
Seniority	5.864	4.485	1	30	204,481
Retiring from Office	0.049	0.215	0	1	204,481
Electoral Security	0.344	0.245	0	1	204,481
Ideological Moderateness	-0.52	0.222	-1.361	-0.003	204,462
Bill Conflict Potential	11.552	21.828	0	208	204,481
Bill Economic	0.619	0.318	0	1	204,481

Notes: Money Total is measured in $10,000 units, *Seniority* is in two-year terms. The unit of observation is representative-vote.

Table A3: The determinants of representative-vote-specific campaign money

Dependent variable: *Money Total*	(1)	(2)	(3)
Democratic Party	-0.469***	-0.464***	
	(0.173)	(0.173)	
Majority Member	0.089	0.092	0.184*
	(0.076)	(0.076)	(0.096)
Seniority	0.074***	0.074***	1.006***
	(0.016)	(0.016)	(0.260)
Retiring from Office	0.175	0.168	0.045
	(0.235)	(0.235)	(0.240)
Electoral Security	-0.913***	-0.927***	-0.857***
	(0.194)	(0.194)	(0.213)
Ideological Moderateness	1.984***	1.974***	
	(0.356)	(0.356)	
Bill Conflict Potential	0.075***		
	(0.002)		
Bill Economic	2.826***		
	(0.091)		
Congress FE	X		
Vote FE		X	X
Representative FE			X
Observations	204,462	204,462	204,481
Adjusted R^2	0.245	0.488	0.563

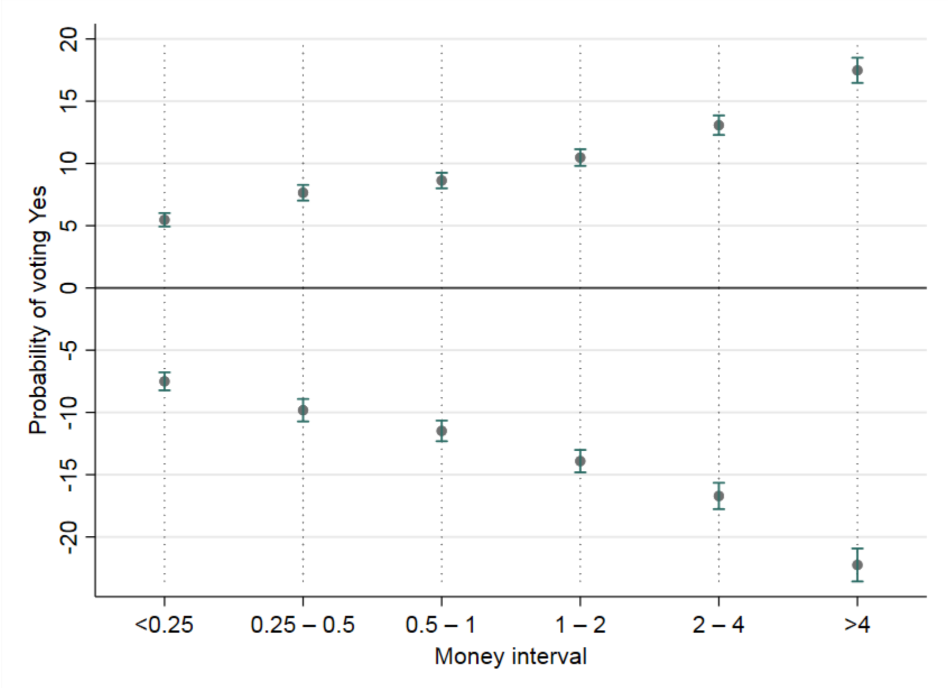
Notes: OLS regressions with robust standard errors clustered by representative in parentheses. The unit of observation is representative-vote. *Money Total* (in $10,000 units) is the sum of campaign contributions a representative received from interest groups with positions on the bill in the last (two-year) election cycle before the vote. The sample consists of 490 final passage votes between 2005 and 2014. See Table A2 for descriptive statistics of the used variables. * p<0.1, ** p<0.05, *** p<0.01.

Table A4: Shock events and US television coverage

Dependent variable: *Daily News Pressure*	$[-10,-6]$	$[-5,-1]$	shock=t	+1	+2	+3	+4	+5	+6	$[+7,+10]$	$[+10,+20]$
Natural disaster US	-0.238	1.006***	2.293***	0.838	0.877	1.032*	0.489	-0.206	0.859	0.248	-0.242
	(0.366)	(0.377)	(0.601)	(0.601)	(0.604)	(0.605)	(0.605)	(0.627)	(0.625)	(0.412)	(0.266)
Natural disaster ROW	-0.537**	-0.206	0.563	0.501	0.880**	0.347	1.007**	1.075**	0.563	0.350	-0.277
	(0.251)	(0.258)	(0.412)	(0.413)	(0.415)	(0.422)	(0.437)	(0.429)	(0.421)	(0.279)	(0.177)
Techn. disaster US	-0.246	-0.199	0.522	1.330***	0.849**	-0.038	-0.294	0.385	-0.560	-0.347	0.032
	(0.256)	(0.263)	(0.426)	(0.419)	(0.429)	(0.422)	(0.422)	(0.422)	(0.428)	(0.288)	(0.186)
Techn. disaster ROW	-0.052	0.173	0.420	0.507	0.041	0.383	-0.226	-0.259	0.390	0.178	-0.053
	(0.253)	(0.265)	(0.421)	(0.430)	(0.432)	(0.425)	(0.440)	(0.424)	(0.423)	(0.289)	(0.183)
Terrorist attack US	-0.435	0.263	1.833***	2.168***	2.105***	0.804	1.201**	0.314	0.442	-0.828**	-0.582**
	(0.340)	(0.350)	(0.558)	(0.577)	(0.577)	(0.562)	(0.562)	(0.561)	(0.560)	(0.383)	(0.247)
Terrorist attack ROW	-0.514	0.371	2.817**	2.893**	2.205*	2.630**	-0.833	-0.654	-1.493	-0.557	-0.326
	(0.617)	(0.708)	(1.127)	(1.129)	(1.135)	(1.137)	(1.136)	(1.134)	(1.131)	(0.774)	(0.447)
Shooting rampage US	-0.400	-0.356	1.669***	2.030***	0.731	0.387	-0.586	-0.553	-0.594	-0.064	-0.354
	(0.301)	(0.310)	(0.494)	(0.507)	(0.507)	(0.498)	(0.497)	(0.509)	(0.495)	(0.339)	(0.219)
Month FE	X	X	X	X	X	X	X	X	X	X	X
Day-of-the-week FE	X	X	X	X	X	X	X	X	X	X	X
Observations	3,263	3,263	3,205	3,204	3,203	3,202	3,201	3,200	3,199	3,255	3,259
Adjusted R^2	0.437	0.406	0.197	0.194	0.185	0.180	0.181	0.183	0.187	0.345	0.563

Notes: OLS regressions with standard errors in parentheses. The dependent variable is *daily news pressure* (Eisensee and Strömberg, 2007) at different days around the shock event (or averaged over days if we consider time spans). The explanatory variables are indicators which take a value of one if, on day t, the number of deaths caused by the respective event lies above the 99th percentile of the (event- and region-specific) distribution. In case of natural and technological disasters, we restrict the sample to one-day incidents (i.e., disasters which last no longer than one day). ROW refers to the rest of the world and aggregates all countries except the US. In the case of shooting rampages in the US, the indicator is one if there was a serious incident on day t (based on a list compiled by the *Los Angeles Times*). The sample period is 2005-2013. * p<0.1, ** p<0.05, *** p<0.01.

Figure A2: The correlation between Yes and No money and representatives' voting behavior



Notes: The graph shows the different effects of Yes and No money in the corresponding interval (in $10,000 units) on representatives' voting behavior. Above the x-axis are the coefficients for Yes money, i.e., the money donated by interest groups which support the bill on the probability of voting Yes; below, the corresponding effects for the money spent against bills on the probability of voting Yes. The effects are in percentage points (with no money at all as the reference category). See Table A5 for the underlying regression results. 95% confidence intervals included.

Table A5: Estimation results for the effects of Yes and No money

Dependent variable *Vote Yes*	SIG Money Yes (abs.)	SIG Money No (abs.)
$0	(Reference category)	
<$2,500	5.472***	-7.503***
	(0.276)	(0.368)
$2,500-5,000	7.646***	-9.822***
	(0.321)	(0.460)
$5,00-10,000	8.629***	-11.48***
	(0.318)	(0.423)
$10,00-20,000	10.47***	-13.91***
	(0.342)	(0.459)
$20,00-40,000	13.07***	-16.71***
	(0.399)	(0.539)
>$40,000	17.48***	-22.25***
	(0.516)	(0.676)

Notes: The table shows the OLS regression results of a model which regresses representative voting behavior on dummy variables capturing different intervals for the absolute $-amount of Yes and No money a representative receives in the last election cycle prior to the vote from specific interest groups that are in favor of and against the bill. The other explanatory variables are district preferences (the absolute measures), representative x party-of-sponsor and vote fixed effects. Robust standard errors clustered by representative in parentheses; N=204,481; R^2=0.596. *** p<0.01.

Table A6: Robustness – Shock and conflict intensity

Dependent variable: *Vote Yes* [0/100]	Baseline model (1)	Shock intensity (2)	Conflict intensity (3)		(1) cont.	(2) cont.	(3) cont.
SIG Money Yes (net)	0.622***	0.803***	0.543***	Constituency Yes (net)	1.127***	0.677***	1.225***
	(0.062)	(0.084)	(0.059)		(0.097)	(0.114)	(0.104)
SIG Money Yes x Shock	-0.00922		0.008	Constituency Yes x Shock	0.109		0.073
	(0.064)		(0.065)		(0.094)		(0.099)
SIG Money Yes x Shock (75-99th)		-0.227***		Constituency Yes x Shock (75-99th)		0.607***	
		(0.073)				(0.135)	
SIG Money Yes x Shock (>99th)		-0.190**		Constituency Yes x Shock (>99th)		0.559***	
		(0.088)				(0.149)	
SIG Money Yes x Conflict	0.723***	0.558***		Constituency Yes x Conflict	-1.079***	-0.404**	
	(0.072)	(0.175)			(0.132)	(0.197)	
SIG Money Yes x Tension			1.415***	Constituency Yes x Tension			-0.496***
			(0.103)				(0.107)
SIG Money Yes x Clear Conflict			0.642***	Constituency Yes x Clear Conflict			-1.316***
			(0.087)				(0.147)
SIG Money Yes x Shock x Conflict	1.275***			Constituency Yes x Shock x Conflict	-0.622**		
	(0.446)				(0.299)		
SIG Money Yes x Shock (75-99th) x Conflict		0.216		Constituency Yes x Shock (75-99th) x Conflict		-1.019***	
		(0.180)				(0.227)	
SIG Money Yes x Shock (>99th) x Conflict		1.442***		Constituency Yes x Shock (>99th) x Conflict		-1.300***	
		(0.479)				(0.354)	
SIG Money Yes x Shock x Tension			0.183	Constituency Yes x Shock x Tension			0.092
			(0.368)				(0.179)
SIG Money Yes x Shock x Clear Conflict			2.016***	Constituency Yes x Shock x Clear Conflict			-0.379
			(0.566)				(0.483)
Conflict	-1.387***	-1.463***		Representative x Party-of-Sponsor FE	X	X	X
	(0.253)	(0.253)					
Tension			-0.0221	Vote FE	X	X	X
			(0.214)				
Clear Conflict			-0.733**	Observations	204,481	204,481	204,481
			(0.357)	Adjusted R^2	0.587	0.587	0.587

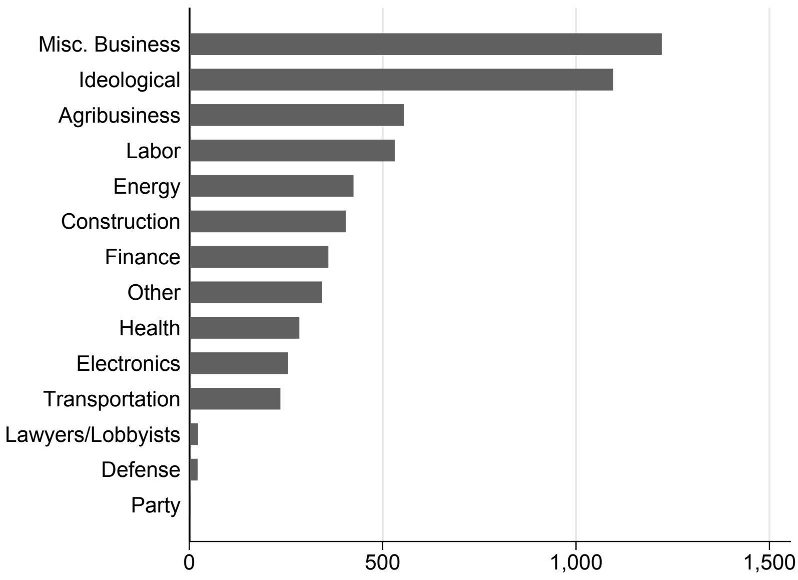
Notes: OLS regressions with robust standard errors clustered by representative in parentheses. The mean values for the shock and conflict indicators are: *Shock (75-99th)* 0.64; *Shock (>99th)* 0.13; *Tension* 0.53; *Clear Conflict* 0.07. For the remaining variables, the descriptive statistics can be found in Table 3. * p<0.1, ** p<0.05, *** p<0.01.

Table A7: Robustness – Shock duration

Dependent variable: *Vote Yes* [0/100]			
SIG Money Yes (net)	0.689*** (0.063)	Constituency Yes (net)	1.067*** (0.098)
SIG Money Yes x After Shock	-0.522*** (0.055)	Constituency Yes x After Shock	0.695*** (0.153)
SIG Money Yes x Shock	-0.0783 (0.065)	Constituency Yes x Shock	0.170* (0.094)
SIG Money Yes x Conflict	0.721*** (0.078)	Constituency Yes x Conflict	-1.052*** (0.139)
SIG Money Yes x After Shock x Conflict	-0.144 (0.249)	Constituency Yes x After Shock x Conflict	-0.411 (0.347)
SIG Money Yes x Shock x Conflict	1.274*** (0.445)	Constituency Yes x Shock x Conflict	-0.640** (0.303)
Conflict	-1.395*** (0.254)	Representative x Party-of-Sponsor FE	X
		Vote FE	X
		Observations	204,481
		Adjusted R^2	0.587

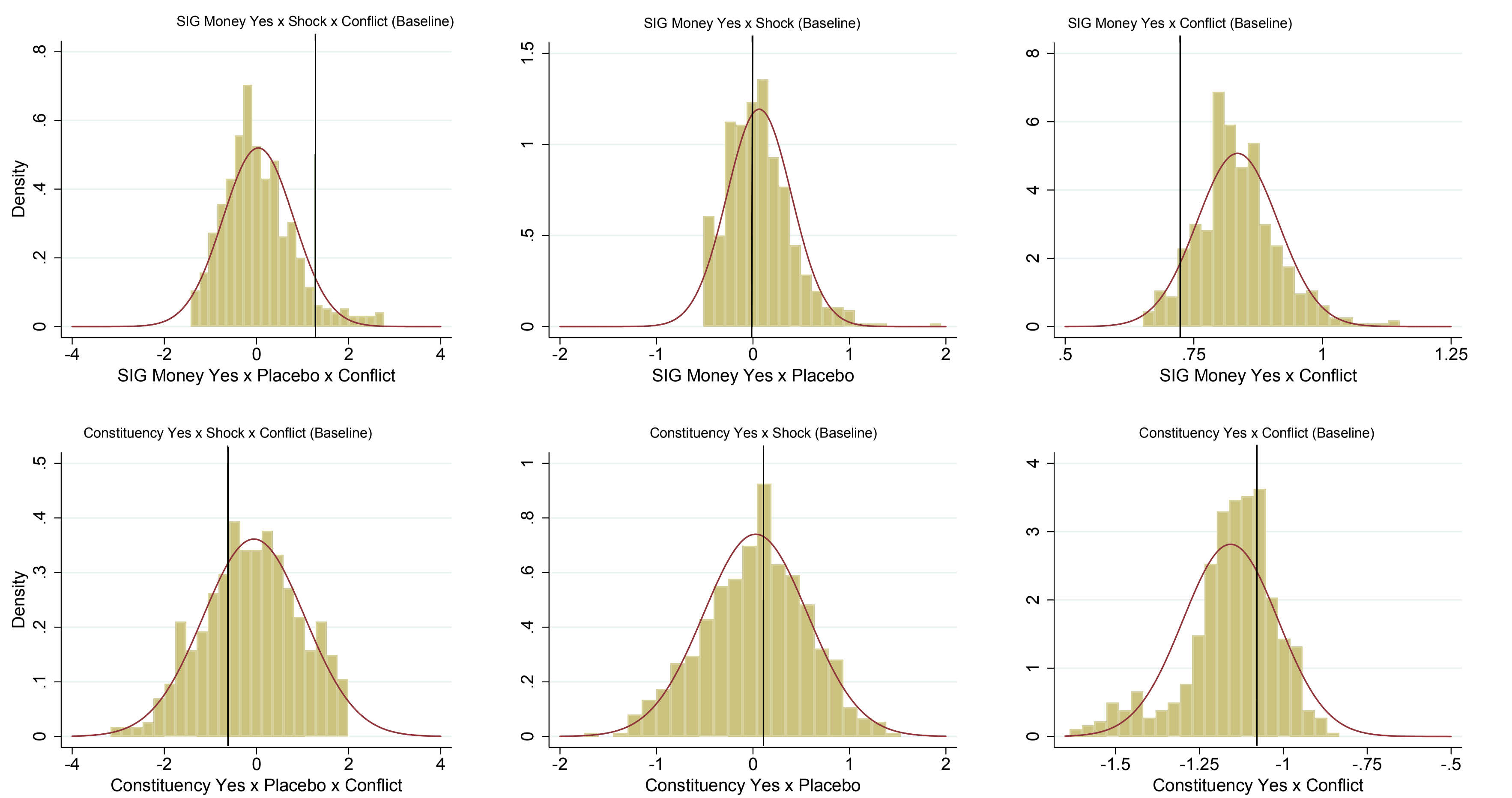
Notes: OLS regression with robust standard errors clustered by representative in parentheses. The mean value of *After Shock* is 0.08. For the remaining variables, the descriptive statistics can be found in Table 3 * p<0.1, ** p<0.05, *** p<0.01.

Figure A3: The number of bill positions per sector



Notes: The graph illustrates the total number of positions taken by organizations within each sector regarding the bills in our sample. The sector *Other* includes education, civil servants, retired and non-profits.

Figure A4: Robustness – Distribution of the placebo coefficients



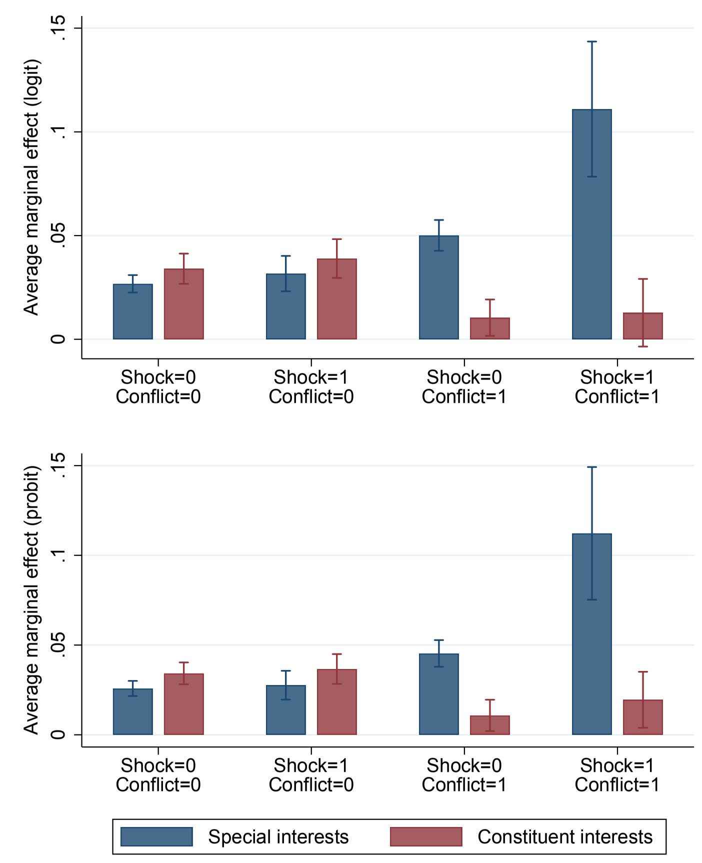
Notes: The graphs show the distribution of the coefficients that result from the placebo model. The placebo days were randomly distributed over all non-shock days for a total of 500 runs. The number of placebo days is chosen in such a way that it matches the proportion of original treatment days of about 12%. The vertical lines in each graph depict the estimated coefficients from our baseline model that applies the real shock treatment.

Table A8: Main results using logit/probit regressions

Dependent variable: *Vote Yes* [0/1]	Logit	Probit
SIG Money Yes (net)	0.0806***	0.0432***
	(0.0067)	(0.0035)
SIG Money Yes x Shock	0.00016	0.0044
	(0.0103)	(0.0059)
SIG Money Yes x Conflict	0.0552***	0.0344***
	(0.0100)	(0.0054)
SIG Money Yes x Shock x Conflict	0.1831***	0.0819***
	(0.0518)	(0.0231)
Constituency Yes (net)	0.1286***	0.0661***
	(0.0116)	(0.0072)
Constituency Yes x Shock	0.0004	0.0042
	(0.0147)	(0.0094)
Constituency Yes x Conflict	-0.0896***	-0.0467***
	(0.0161)	(0.0083)
Constituency Yes x Shock x Conflict	0.0274	-0.0009
	(0.0304)	(0.0163)
Conflict	-0.1067***	-0.0631***
	(0.0303)	(0.0162)
Representative x Party-of-Sponsor FE	X	X
Vote FE	X	X
Observations	201,513	201,513
Pseudo R^2	0.592	0.583

Notes: Logit/probit regressions with standard errors clustered by representative in parentheses. See Table 3 for descriptive statistics of the used variables. * p<0.1, ** p<0.05, *** p<0.01 .

Figure A5: Average marginal effects of special and constituent interests on representatives' voting behavior (logit/probit regressions)



Notes: The graph illustrates the differential effects of special and constituent interests on representatives' voting behavior, depending on whether the vote is taken after serious shock events and on whether the representative faces a conflict of interest (i.e., special and constituent interests are at odds regarding a particular bill). Each bar shows the average marginal effect of a one standard deviation change in the special or constituent interests variable. 95% confidence intervals are included. See Table A8 for the underlying estimation results.

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