Bailouts for Sale

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Abstract

This paper estimates the impact that campaign contributions from the financial sector had in influencing U.S. legislators to support the financial sector bailout bill (TARP) passed by the United States Congress in October 2008. After expanding on a classic theory of moral hazard and electoral accountability, I use a probit analysis to estimate the probability that a legislator supported the bailout bill. The primary explanatory variables of interest, which are motivated by the theoretical section, are campaign contributions to legislators from special interest groups and a measure of constituency characteristics. Controlling for heterogeneity of districts follows from the paper's theoretical advancement, which is to allow for heterogeneous electoral constraints on the legislators' ability to collect rents from and vote with the financial special interest. The heterogeneity is based on the importance of the financial sector for employment in districts. The probit estimation results are nothing new to Public Choice adherents. Influence over Senators can be bought and this was true of the financial bailout of 2008: all else equal, an additional $100,000 in campaign contributions from the commercial banking interest is estimated to increase the probability that a Senator supported the bailout by 15.4 percentage points.

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1 Introduction

The notion that influence over politicians can be purchased through campaign contributions by special interest groups is not new in the Public Choice literature.[1] When such influence leads politicians to pursue policies that do not represent the preferences of their constituencies, elections can play a role in keeping politicians accountable. Elections address an important principle-agent problem in representative democracies, in which legislators are the agents of the constituency which elects them. In the Public Choice line of thought, however, political agents maximize their own utility function, which may not include as an argument the well-being of their constituents.

The moral hazard problem in representative politics was first addressed by Barro (1973) and subsequently by Ferejohn (1986). The interesting feature of these models is that they were the first to treat the electorate as the principle instead of the government. Rather than a benevolent government trying to maximize the welfare of an adversarial polity, these models supposed instead that it was the government who was out to game the electorate. The models treat politicians as the agents of the electorate, and analyze the incentives of politicians to extract rents from special interests (campaign contributions, other forms of lobbying, or outright bribery) in exchange for making policies that do not maximize the welfare of the principled electorate. Elections serve as an imperfect fix to the moral hazard problem, essentially limiting the amount of rent that can be extracted simply by the presence of challengers who are, on average, better for the public than a dissonant politician.

The brief theoretical section below extends the moral hazard model of Besley (2006) to include heterogeneity among politicians as to the characteristics of their constituencies and campaign contributions from outside the special interest vote that has electoral consequences.[2] The theoretical extension supports interesting empirical investigations into the relationship between special interest campaign contributions and the voting behavior of a heterogeneous group of legislators on a bill that made explicit transfer payments against the *direct* interests of a voting majority.

More generally, we can use the bailout incident to get at central questions about the

[1] See, for example, Tullock (1972),Barro (1973), and Welch (1974) for the original theoretical statements of the possibility of special interest control over politicians.

[2] Besley (2006) does not have different special interest groups. In the model below, there are electoral consequences for the vote on the financial bailout, but not for other special interest legislation. This is a simplifying assumption, but one that seems reasonable considering the populist rage at banking fat cats that was on display in the months (years) after the bailout bill was passed.

motivations of politicians. Besley (2006) discusses when politicians may choose to pursue policies that are politically unpopular, but necessary for the well-being of society. In his model, a good politician may support an unpopular policy out of magnanimity, despite being perceived publicly as a bad politician. When a politician risks re-election by pursuing an unpopular policy has been described by Maskin and Tirole (2004) as a "courageous equilibrium."[3] The bailout was clearly an unpopular policy, evidenced anecdotally by the protests in front of major New York banks and the capitol in the days following its passage and the media rants which continue more that a year later.[4] The question, then, is whether this unpopular policy was, on average, pursued by politicians out of magnanimity or to satisfy the special interests seeking rents.[5] Technically, we would like to test the null hypothesis that supporting the bail-out was, on average, the "courageous" actions of magnanimous politicians against the alternative that supporting the bail-out was, on average, the actions of politicians captured by the finance special interest. Under the null hypothesis, there should be no correlation between lobby contributions of the financial sector and the probability that a legislator supports the bail-out. The bail-out provides an interesting case study to evaluate the motivations of politicians in this dimension.

After expanding on the theory of moral hazard and electoral accountability developed by Besley (2006), I use a probit analysis to estimate the probability that a legislator supported the bailout bill. The primary explanatory variables of interest are campaign contributions to legislators from special interest groups, with a focus on the financial sector special interest, and a measure of constituency characteristics. Namely, the percentage of non-agricultural employees in a state that are employed in the financial activities sector is used to get at the heterogeneous electoral constraints on the legislator's willingness to vote with the financial special interest.[6] If, after controlling for government-market ideology of legislators and constituency characteristics, the estimated probability of supporting the bailout bill is increasing in financial sector contributions (over the 2002-2008

[3] See also the related work of Smart and Sturm (2004).

[4] Congleton (2009) has documented that the TARP legislation was viewed as a particularly toxic issue for members of the House that were up for re-election. Indeed, the initial TARP proposal was voted down by the House of Representatives before the bill got "sweetened up" in the Senate and the media had sounded the Great Depression alarms.

[5] Furthermore, it will be interesting to do a similar study of the auto industry bail-out, whose economic legitimacy is even more questionable. It will be interesting to note which legislators supported one, but not the other and then looking at the differences in the sources of their campaign finances. See Hillman (1982) for example.

[6] Candidates that are only concerned with re-election should be more (less) likely to support the bailout bill if their state is heavily (lightly) populated with financial sector workers.

election cycle), then we can say that the bailout was indeed "for sale", to borrow the famous verbiage of Grossman and Helpman (1994).[7] The probit estimation results are nothing new to Public Choice adherents. Influence over Senators can be bought and this was true of the financial bailout of 2008: all else equal, an additional $100,000 in campaign contributions from the commercial banking interest increases the probability of supporting the bailout by 15.4 percentage points, a coefficient estimate that is significant at the 5% level.[8]

The next section presents the theoretical model, which is analyzed in the third section and found to have several sharp empirical predictions. The fourth section describes the data that was used for the probit analysis and presents the probit estimation results. For now, most of the tables have been relegated to appendixes.

2 The model

2.1 Structure of the model

Following the baseline moral hazard model of Besley (2006), there are two time periods $t \in \{1,2\}$ and in each period politicians must make a political decision about a special interest legislation, $e_t \in \{0,1\}$. Payoffs depend on the state of the world $s_t \in \{0,1\}$, which is the private information of incumbents, and which occur with equal probability. Voters receive a payoff of $\Delta > 0$ whenever the policy is appropriate for the state of the world, i.e., when $e_t = s_t$. For example, $e_1 = 1$ could represent a financial bailout to the commercial banking sector and $s_1 = 1$ could represent financial armageddon. In this scenario, voters would benefit from a financial bailout. Assume, however, that the state of the world is not financial armageddon, at least in the eyes of voters. That is, suppose that the state of the world in the first period is perceived by voters to be $s_1 = 0$. Voters then receive a payoff of Δ if $e_t = 0$ and zero otherwise, so voters always prefer that

[7] Of course, the legislators who were for sale will say that they were voting magnanimously and courageously, that the world would have ended if this bill did not pass. But, 25 Senators and 173 Representatives in the House voted against it, so it is far from clear that it was universally accepted that the world would have ended without the bailout. Furthermore, Congleton (2009) has noted that the bailout may have been an unnecessary policy response whose consequence was to transfer public money "up-distribution" to financial sector employees.

[8] Among Congressmen, the marginal effects of campaign contributions from the commercial banking interest were significantly positive at the 1% level. An additional $10,000 in contributions increased the probability that a Congressman supports the bailout by 4.4 percentage points.

commercial banks do not get bailed out, i.e., they always prefer $e = 0$.[9]

All politicians are office-motivated for purely selfish reasons, which is captured by the payoff E that incurs to office-holders, who are assumed to have outside options normalized to zero. There are congruent and dissonant politicians, where π is the probability that a randomly picked politician has preferences that are congruent to the electorate's majority position. Congruent politicians share voter's objectives exactly, so they always vote against the special interest bailout (they choose $e_t = 0$), always receive a payoff of $E + \Delta$, and are always re-elected. Dissonant politicians are not compelled to vote against a bailout to suit voters, and they receive a dissonance rent from the financial special interest, $r^f \in [0, R]$ from picking $e_t = 1$, where r^f is a random variable with cdf $G(r^f)$ and mean μ.

2.2 Behavioral constraints

Dissonant legislators in the model are subjected to two types of "accountability constraints" as they are agents to two principles. Indeed, legislators choose between which principle to serve. The first accountability constraint is *electoral*: If legislators are dissenting and vote $e = 1$, they are removed from office with a certain probability that depends on the characteristics of their electorate. There is empirical support for the notion that elections can keep politicians accountable in the sense that corrupt incumbents are more likely to be replaced than those not perceived to be corrupt.[10] The second accountability constraint is to the financial *special interest:* Politicians must commit to vote $e_1 = 1$ if they accept the finance lobby contribution in the first period. The two constraints are interrelated in the model: the electoral constraint influences the degree to which politicians can extract rent from the special interest.

2.3 District heterogeneity

Let states vary by the proportion of the electorate working in the finance sector (special interest), denoted by $f \in (0, 1)$. Index the states by $j \in \{1, 2, \ldots N\}$, so that $j' > j$ indicates that finance is a more important industry in state j' than in state j, i.e., $f' > f$.

[9] Alternatively, and a bit more intuitively, is the other way around so that voters get $-\Delta$ if $e_t = 1$, which would represent the negative transfer to finance.

[10] See Krause and Mendez (2009) for an empirical analysis of corruption perceptions and electoral accountability over a cross-section of countries. See Peters and Welch (1980) for a study of the impact of corruption allegations on electoral outcomes of incumbent U.S. Representatives.

All congruent politicians remain in office, so the district heterogeneity does not affect congruent politicians. However, the district heterogeneity affects the probability that a dissonant politician who voted to support the bailout in the first period ($e_1 = 1$) gets voted out of office. Let $\rho(f)$ be a function of the importance of the special interest in the state which describes the probability of *not* getting voted out of office for supporting the bailout, such that $0 < \rho(f) < 1$, $\rho(0) = 0$, $\rho(1) = 1$ and $\rho'(f) > 0$. In other words, when no one in the state is employed by the special interest, the dissonant politician is voted out of office with certainty. At the other extreme, when state is entirely employed by the special interest, then the "dissonant" vote is never punished. The relationship between the extreme cases is assumed to be monotonic. The heterogeneity of district demographics has the effect of making the electoral accountability constraint different for legislators of different districts, and allows for differentiation in equilibrium rents paid out to legislators by the special interest.

2.4 Payoffs for politicians

The congruent politicians always vote $e_t = 0$, obtain utility Δ for doing the right thing, collect ego-rents from holding office (E) and are re-elected with certainty. The expected payoff for congruent politicians after voting e_1 is:

$$\Delta + \beta(E + \Delta),$$

where β is the rate at which the future is discounted, which is common to all types of agents in the model. Dissonant politicians can either vote $e_1 = 1$ or $e_1 = 0$. The reason that a dissonant politician would vote $e_1 = 0$ is to mimic a congruent politician and get re-electd with certainty to guarantee second-period rents. Voting $e_1 = 0$ in the first period means that the politician does not take a contribution from the financial special interest, returns to office with certainty, and has an expected payoff of:

$$r_i^o + \beta(E + \mu + r_i^o),$$

where r_i^o are the campaign contributions from other (non-financial) sources received by legislator i and μ is the expected campaign receipt from the financial special interest in the next period. Recall that rents from the financial sector are distributed over $[0, R]$. It is assumed that $R > \beta(E + \mu)$ so that dissonant politicians vote for a bailout in the first period at least some of the time. The dissonant vote of $e_1 = 1$ means that the politician

is taking a contribution from the financial special interest at the risk of losing office with a probability that depends on the characteristics of his district. Formally, supporting the special interest legislation has an expected return of:

$$r^f_{i,j} + r^o_i + \beta\rho(f_j)(E + \mu + r_o),$$

where $r^f_{i,j}$ is the political rent received by legislator i of district j from the financial special interest and $\rho(f_j)$ is the probability that the incumbent legislator of district j is *not* punished by his constituents for voting with the special interest.

3 Analysis

3.1 Optimal political behavior

Congruent politicians always choose to not bailout ($e_t = 0$), so their behavior is not strategically interesting. There must be a possibility that politicians are congruent because otherwise no politician would ever be re-elected. Denoting the probability that a politician who votes $e_1 = 0$ is really dissonant by $\lambda \in [0, 1]$, it is easy to show that a politician who votes against the bailout in the first period will always get re-elected. If voters use Bayes rule to update their beliefs about the nature of the incumbent, then the probability that an incumbent is congruent conditional on having picked $e_1 = 0$ is:

$$\frac{\pi}{\pi + (1 - \pi)\lambda} > \pi,$$

so that voters re-elect the well-behaved politician for sure, even if he is really dissonant. As in Barro (1973), it is the existence of challenging politicians that keeps dissonant incumbents accountable. If there were no challengers to an incumbent, then the dissonant politicians would not have to vote against the special interest to guarantee future rents.

A risk-neutral dissonant legislator maximizes utility by choosing the first period action that gives the highest expected payoff. A dissonant legislator i from district j support the bailout ($e_1 = 1$) whenever

$$r^f_{i,j} + r^o_i + \beta\rho(f_j)(E + \mu + r^o_i) \geq r^o_i + \beta(E + \mu + r^o_i). \tag{1}$$

Simple algebra shows that the legislator, given f_j, will be indifferent between voting yes

or no to the bailout at a critical value for the financial sector contribution, $\widehat{r}^f$:

$$\widehat{r}^f_{i,j} = \beta(E + \mu + r^o_i)(1 - \rho(f_j)).$$

Senators who, given the importance of financial activities in their state, receive more than $\widehat{r}^f_{i,j}$ rationally vote in favor of the bailout according to the model. Note that β, E, and μ are common across legislators, $\rho(f_j)$ is district-specific, and r^o_i is legislator-specific. Therefore, if political rents from the financial sector are competitively allocated, $\widehat{r}^f_{i,j}$ should be unique, determined by the common parameters, the district-specific accountability parameter, and the legislator's outside support, which does not have electoral implications. If rents have the cdf G, then it is straightforward to identify λ: the probability that the politician is really dissonant conditional on having chosen $e_1 = 0$ is

$$\lambda \equiv \text{prob}\left[r^f_{i,j} > \beta(E + \mu + r^o_i)(1 - \rho(f^j))\right] = G\left[\beta(E + \mu + r^o_i)(1 - \rho(f_j))\right].$$

3.2 Comparative statics

3.2.1 Influence of the financial special interest

Changes in the critical value of rents from the financial sector change the probability that a senator supports the bill. Referring to equation (1), it is clear that the higher is the rent offered by the financial sector, the greater the probability that the legislator will support the legislation. In the model, taking a high financial rent from the financial sector is a necessary condition for voting for the bailout.[11]

3.2.2 Relative influence of other special interests

Higher contributions from non-finance sectors have the effect of increasing the critical value in each state. Dropping the district and individual subscripts for expositional ease, partially differentiate the critical value, $\widehat{r}^f$, with respect to r^o to get:

$$\frac{\partial \widehat{r}^f}{\partial r^o} = \beta(1 - \rho(f)) > 0,$$

[11] In reality there were senators who took large contributions from the financial sector who voted against the bailout, just as there were senators who voted for the bailout but did not take large contributions. These issues will be addressed in the empirical section of the paper.

where the inequality follows from the the facts that $0 < \beta < 1$ and $0 \leq \rho(f) \leq 1$. *Ceteris paribus*, an increase in outside contributions increases the financial sector contributions that are required to induce a dissonant legislator to support the bailout. The value of continuing to hold office is increasing in outside contributions and supporting the bailout increases the probability that the legislator will be voted out of office and not be able to take the outside contributions in the second period. Therefore, an increase in outside contributions makes it less likely for a legislator to support the bailout for any given level of lobby receipts from the financial sector.

3.2.3 Heterogeneous electoral control

Moreover, the critical value of the financial rent offer differs by state according to the demographics of the state's electorate. In states where $f' > f$, legislator i' has a looser electoral constraint than legislator i, since the special interest is a larger electoral mass in the state with f'. Differentiating the critical value with respect to f gives:

$$\frac{\partial \widehat{r}^f}{\partial f} = -\rho'(f)\beta(E + \mu + r^o) < 0,$$

where the sign of the partial follows from the assumption that $\rho'(f) > 0$.[12] In other words, the critical values are a decreasing function of the importance of financial services in the state. Higher dependence on financial services in the economy reduces the probability that the incumbent will be disciplined for voting with the special interest. As a result, legislators from financial states need to be compensated less by the special interest to induce a vote of $e = 1$. Since it is cheaper to influence legislators from a financial state, it is more likely that those legislators have been captured by the financial interest,

[12] Alternatively, a legislator who accepts a first period contribution accepts that contribution for the next period as well, so that voting $e = 1$ in this scenario has an expected future return of

$$r^f + r^o + \beta\rho(f)(E + r^f + r^o).$$

Here the critical value (and its derivatives) are a bit more complicated. The critical value is given by:

$$\widehat{r}^f = \frac{\beta\left[\mu + (E + r^o)(1 - \rho(f))\right]}{1 + \beta\rho(f)}.$$

Partially differentiating the critical value with respect to f gives:

$$\frac{\partial \widehat{r}^f}{\partial f} = \frac{-\rho'(f)\beta(E + \rho)(1 + \beta\rho(f)) - \rho'(f)\beta^2\left[\mu + (E + r^o)(1 - \rho(f))\right]}{(1 + \beta\rho(f))^2} < 0.$$

all else equal.

3.3 Empirical predictions

3.3.1 Influence of financial special interest

1. Null: Lobbying receipts from finance and voting behavior of legislators are independent.

2. Alternative: There is a positive correlation between lobbying receipts from finance and voting yes to the bailout. Moreover, in a probit analysis, higher lobbying receipts from finance are predicted to increase the probability that a legislator voted yes, after controlling for other relevant political variables.

3.3.2 Relative influence of other special interests

1. Null: Lobbying receipts from outside finance and voting behavior of legislators are independent.

2. Alternative: There is a negative correlation between lobby receipts from outside finance and voting yes. Moreover, in a probit analysis, higher non-financial lobbying receipts are predicted to decrease the probability that a legislator voted yes, controlling for other relevant political variables.

3. Corollary: In the sub-sample of legislators who voted yes, the (per-capita) financial contribution received is a increasing function of the lobbying receipts from special interests outside of finance.

3.3.3 Heterogeneous electoral accountability

1. Null: The proportion of the electorate that is employed in financial services and voting behavior of legislators are independent.

2. Alternative: There is a positive correlation between the importance of the financial sector and voting yes. Moreover, in a probit analysis, higher percentages employed by finance in states are predicted to increase the probability that a legislator voted yes, controlling for other relevant political variables.

3. Corollary: In the sub-sample of legislators who voted yes, the (per-capita) financial contribution received is a decreasing function of the percentage of the population employed in the financial sector.

4 Empirical analysis

4.1 Explanation of the data

I use a probit analysis to estimate the probability that a legislator voted yes to the financial bailout.[13] In the baseline model, the probability that a legislator votes for the financial bailout is taken to be a function of the variables in the theoretical model, namely lobbying receipts from the financial sector ($fincont_i$), lobbying receipts from all other pressure groups outside of finance ($outside_i$), and the percentage of the state's employed population that works in financial activities ($weightfin_i$). In addition to those variables motivated by the theoretical section, the baseline specification controls for a legislator's government-market ideology (DW_i) and the weight of the financial sector in the legislator's portfolio of lobbying receipts.

The data was taken from three main sources. Primary to the analysis and the real starting point for this work, was the website of the Center for Responsive Politics.[14] Data for lobbying receipts were found there, from the financial sector specifically, and the total lobby receipts by legislator.[15] For the Senate, campaign contributions are measured in the in the $100,000s over the 2002-2008 election cycle, while contributions are measured in $10,000s for the House over the same time period. I also consider subsets of the financial sector contributions category, namely from the commercial banking sector ($bankcont_i$) and from the securities and investments sector ($seccont_i$). The model predicts all of these variables to have a positive impact on the probability that a legislator supports the bailout bill. I have also constructed a variable which measures the relative weight of contributions from the financial sector to a legislator's overall lobbyist-financed

[13] Be more specific about the bill that you have voting data on, the (second round of the) Troubled Asset Relief Program (TARP).

[14] Data is freely available at `www.opensecrets.org`.

[15] It is worth noting that the website collects data from government records about *reported* campaign contributions, so is likely to *under-report* the contributions actually received by legislators. Welch (1974) also notes the incentives for official campaign contributions to be under-reported, since voters naturally do not like candidates who appear to be buying elections. Moreover, there are non-monetary forms of compensating legislators which are impossible to quantify, such as seats on corporate boards, jobs for spouses and nephews, invitations to chic parties, etc.

campaign money. Labeled as $finimport_i$, the variable is simply the ratio of financial sector contributions to total contributions, multiplied by 100. Similar measures were also constructed for the regressions that focus on the sub-categories of financial contributions, namely $bankimport_i$ and $secimport_i$. Contributions received from special interests outside of the financial special interests were calculated simply by subtracting the relevant financial sector contributions from the total contributions received by the legislator. Corresponding to r_i^o from the theoretical section above, outside contributions received by the legislator are labeled $outside_i$ in the empirical analysis below. Outside contributions are also measured in $100,000s for the Senate and $10,000s for the House.

Secondly, data for the importance of the financial sector to a state's employment was taken from the Bureau of Labor Statistics. This is the percentage of the state's non-agricultural employees that were employed in financial activities in 2008, denoted by $weightfin_i$.

Data for the financial bailout voting record and a measure of legislator government-market ideology is taken from `www.voteview.com/dwnomin.htm`. To control for the government-market ideology of legislators, I used the $DW-score$.[16] Briefly, $DW-score$ is an ideology rating between -1 and +1, based on historical voting records on government intervention in the economy, where $DW-score=-1$ would represent the most possibly interventionist legislator and $DW-score=1$ would represent the most possibly market-oriented legislator. I use a simple transformation of this variable $DW_i = DW-score+1$, so that $DW_i \in [0,2]$, for legislator i. There is no role for ideology in the model, but it seems important to control for it. *A priori*, it is reasonable to expect more interventionist legislators to be more likely to support the bailout bill, so a negative coefficient is expected for the DW variable. Finally, data for the dependent variable ($support_i$) is binary, with $support_i = 1$ if legislator i voted in support of the bailout, and $support_i = 0$ if he/she voted against the bailout. I also control for the party affiliation of the legislator as well as whether the legislator was a member of a finance or banking committee in their respective congressional chamber.

There were some legislators that either did not vote, or were omitted from the sample. For the Senate, the sample used had size $n = 96$. Senator Ted Kennedy did not vote for health reasons and the three major presidential candidates were obvious outliers

[16]The $DW-score$ variable seems to be a pretty well-established measure, especially in political science. It would be a good idea to describe how it is constructed and reference the creators appropriately. For a brief introduction to using this measure as a way to control for legislator ideology, see Nate Silver's 538 piece. `www.fivethirtyeight.com/2009/06/special-interest-money-means-longer.html`.

Table 1: SUMMARY STATISTICS OF CAMPAIGN CONTRIBUTIONS TO LEGISLATORS, BY SUB-SAMPLE, IN THE SENATE AND THE HOUSE OF REPRESENTATIVES

	Senate Yes	*Senate No*	*House Yes*	*House No*
Number	71	25	261	173
Mean from total finance	$958,262^{*}$	$622,900^{*}$	$124,447^{***}$	$87,460^{***}$
Standard error	117,865	94,108	10,617	7,989
$p-$value	0.054		0.006	
Median from total finance	672,572	564,940	64,800	56,950
Mean from commercial banks	173,821	153,824	$28,433^{**}$	$22,475^{**}$
Standard error	18,558	26,943	2,363	1,550
$p-$value	0.258		0.030	
Median from commercial banks	122,150	115,349	16,900	15,550
Mean from securities	$530,965^{**}$	$291,767^{**}$	$58,996^{***}$	$33,751^{***}$
Standard error	81,024	47,344	6,399	4,343
$p-$value	0.045		0.002	
Median from securities	595,218	290,250	24,150	17,750
Mean from outside finance	10,248,260	8,596,910	1,450,470	1,432,238
Standard error	718,544	1,113,788	73,042	96,991
$p-$value	0.103		0.434	
Median from outside finance	9,149,212	6,553,540	1,184,012	1,189,168

Notes: Data from `www.opensecrets.org`. Calculations by the author. *,**, and *** denote that the mean from the *yes* sample is greater than the mean from the *no* sample at 10%, 5%, and 1% significance levels, respectively.

and omitted since they raised record amounts in campaign contributions during this congressional cycle: Barack Obama, Hillary Clinton and John McCain. In the House of Representatives, the sample size was $n = 433$. There were several Congressmen that appear in the $DW-score$ sample, but were not on the vote roll call, either because they did not vote or they were no longer a member of the House at the time of the vote.[17]

For the probit analysis described below, three separate models were estimated. The baseline model uses for r^f the total contributions received from the finance sector as a whole. The two subsequent models use more narrow measures of r^f: the contributions received from the commercial banking and the receipts from the securities and invest-

[17]These representatives are: Baker, Davis (VA-1), Gillmore, Hastert, Jindal, Jones (OH), Lantos, Meehan, Millende, Wicker, and Wynn.

ments special interests, respectively. Table 1 presents summary statistics of campaign contributions received by Senators, broken into sub-samples according to whether or not they supported the bailout. The reported $p-$values in the table indicate a one-sided difference of means test, where the alternative is that legislators who voted yes took higher campaign contributions than those who voted no. By all accounts, mean contributions are higher for Senators who supported the bailout, though not statistically significant for the commercial banking sub-category of campaign contributions. The difference in means is significant at the 5% level for the securities sub-category and for total contributions from the financial sector.[18] Furthermore, the median contribution among Senators who supported the bailout is greater than the median of Senators who opposed it for all sub-categories. Interestingly, the difference in means from outside of the financial sector is only marginally significant.

Table 1 also reports on the same summary statistics for members of the House of Representatives. We reject the null hypothesis of equal mean contributions received legislators who voted in different ways for all measures of financial sector contributions. The mean receipt from a legislator who supported the bailout bill is greater than the mean receipt from a legislator who voted against the bill at the 5% level for the commercial banking sub-category and at the 1% level for the securities sub-category as well as for total finance. The median contribution received by a representatives who voted *yes* is greater than the median contribution received by a representatives who voted *no* for all three measures of contributions from the finance sector. Again, the differences in means contributions from outside the financial sector is not statistically significant.

4.2 Baseline models

Formally, the baseline model is as follows[19]

$$\text{prob}(support_i = 1) = \beta_0 + \beta_1 fincont_i + \beta_2 outside_i + \beta_3 weightfin_i + \gamma' \mathbf{X_i} + u_i, \quad (2)$$

[18] In other words, if a Senator were drawn at random from the *yes* group, there is a 95% chance that he took more in campaign contributions from the financial sector than a Senator that was drawn at random from the *no* sample.

[19] Alternatively, to match the variables with the model, it may be more intuitive to write the baseline probit model as:

$$\text{prob}(support_i) = \beta_0 + \beta_1 r_i^f + \beta_2 r_i^o + \beta_3 finance_i + \gamma' \mathbf{X_i} + u_i.$$

where **X** is a vector of legislator characteristics that could also affect the probability of supporting the bailout, γ is the associated vector of coefficients, and u_i is an i.i.d. error term. In terms of the corollary sub-sample predictions, the following log-linear regression was estimated over the sub-samples of legislators who supported the bailout, i.e., for whom $support = 1$:

$$\log\left(fincont_i\right) = \alpha_0 + \alpha_1 \log\left(outside_i\right) + \alpha_2 weightfin_i + \eta' \mathbf{X_i} + e_i, \tag{3}$$

where **X** is the same vector of legislator characteristics as in equation (2), η is the associated vector of coefficients, and e_i is an i.i.d. error term. Included in the vector **X** is the ideology score, DW_i, a dummy variable ($Republican$) which takes value 1 if the legislator is a Republican and a dummy variable ($committee$) which takes value one if the legislator was a member of the finance or banking committee in their respective congressional chamber.

4.3 Baseline model results

In terms of the empirical predictions, the probit analysis is supportive. The first subsection below considers the baseline results for the Senate, followed by the House results. Tables 2, 3 and 4 present present the results of the baseline model estimations for the influence over Senators of the total financial sector, the commercial banking sector and the securities and investments sectors, respectively. Tables 6, 7, and 8 are the analogues for the House of Representatives. The tables report in the first column the coefficient estimates of the probit analysis, with $p-$values noted parenthetically beneath the coefficient estimates. Two measures of marginal effects are reported in the second and third columns of the tables. The second column on each table, labeled as "MFX at means" reports the marginal effects for the *average legislator*. The third column, by contrast reports the *average marginal effect* across legislators, and is aptly labeled "Mean MFX". Both measures of the marginal effects are interpreted as the change in probability points that results from a marginal increase in the independent variable from its average value.[20] The fourth column in each table gives the results of a OLS estimations of financial contributions. The purpose of the OLS regressions is to check for endogeneity problems that would arise from correlation of error terms of the OLS regression and the probit regression, which would cause an upward bias on the estimated effect of finan-

[20] See Baum (2006) for more on the distinction between the two marginal effect measurements.

cial contributions. In general, I do not find an endogeneity problem, so discussion of its possibility is left for after the presentation of the results. The regressions concerning the corollary predictions for are reported in table 5 for the Senate and table 9 for the House of Representatives.

4.3.1 Senate results

Results for the Senate are collected in tables 2, 3, and 4. The coefficients on campaign contributions from finance, r^f, are estimated to be positive and significant at a minimum 5.5% significance level for all three measures of financial sector influence, which is in accord with the main comparative static prediction. The marginal effects are particularly striking for the commercial banking specification, where a marginal increase in contributions from the average of 1.69 (recall that contributions to Senators are reported in $100,000s) increases the probability that a Senator supports the bailout legislation by 15.4 percentage points, averaging across Senators. Moreover, the marginal effects from campaign contributions from finance are estimated to be positive and significant at the 5% level for all three measures of influence. Secondly, the coefficient on the weight of the financial sector in the state is estimated to have a significantly positive sign, at significance levels of at least 5% for all three measures of influence, again supporting the comparative static prediction. In the commercial banking specification again, the marginal effect is striking. A marginal increase in $weightfin$, the percentage of employed constituents working in financial services, increases the probability Senators support the bailout by 13.5 percentage points. Thirdly, higher outside contributions has an estimated negative effect on the probability that a Senator supported the bailout, which supports the comparative static prediction, but the coefficient estimations have lower significance levels. The importance of financial sector lobbying in the campaign fund portfolio of Senators was estimated to be significantly negative in the commercial banking specification, but not significantly different from zero in the other two specifications. Interestingly, a Senator's party was estimated to have no significant effect on voting, but ideology scores (DW) were estimated to have a negative effect on the probability that the bailout was supported. More interventionist Senators were more likely to support the bill, since DW is increasing with the degree of interventionism on the legislator's voting record.[21] Given

[21]The same was also true among Representatives from the House, where ideology scores were highly significant, but party affiliation was not. This bill came up at a unique time, during a lame-duck term for President Bush, and really under bi-partisan leadership by the two Presidential candidates, Barack Obama and John McCain. Moreover, there was no broad pattern of support across parties. This could differentiate

the strong positive relation between financial sector contributions and the probability that a Senator voted to support the bailout, we can reasonably reject null hypothesis 3.3.1, that there is no relation, on average, between lobbying contributions of a special interest group and Senators' voting behavior on bills related to that special interest.

As a measure of fit, the predicted probabilities were compared to the actual voting behavior. If the predicted probability was greater than 0.5 for a Senator, then that Senator was predicted to have supported the financial bailout. 74% of the votes were correctly predicted for the total finance model. The percent of correct predictions for the securities and banking models, respectively, were 76% and 77%.

Several studies have noted the possibility of endogeneity in probit regressions of the kind described above. For example, the effect of contributions on the probability of supporting the bailout may be upwardly biased if there is endogenous feedback between the $support$ and $fincont$.[22] If the financial sector targets those politicians that are predisposed to support the financial sector, then the effect of contributions on the politicians' policy stance is overestimated. To check whether there was an endogeneity problem, I also estimated the following using OLS:

$$fincont_i = \theta_0 + \theta_1 outside_i + \theta_2 weightfin_i + \kappa' \mathbf{X_i} + v_i, \tag{4}$$

where $\mathbf{X}$ is a vector of legislator characteristics that could also affect the probability of supporting the bailout, κ is the associated vector of coefficients, and v_i is an i.i.d. error term. If the error terms from equations (2) and (4) are correlated, then there is an endogeneity problem that must be addressed either by estimating the equations simultaneously using a full information likelihood procedure or a two-stage instrumental variables procedure. For all three models of the Senate, we cannot reject a null hypothesis that $\text{corr}(u_i v_i) = 0$. So, the estimates of the effect of campaign contributions is not biased due to an endogeneity problem, as there is not an endogeneity issue. The coefficients of correlation for the error terms and their p-values are reported in tables 2, 3 and 4.

In terms of the corollary predictions for the sub-sample of Senators who voted to sup-

the study from protection for sale studies of U.S. trade policy legislation, which are likely to have been highly partisan.

[22] See for example Chappell (1982), Baldwin and Magee (2000), and Liebman and Reynolds (2006), who all find endogeneity between voting with special interest legislation and campaign contributions. Stratmann (1991), on the other hand, does not find endogeneity between voting over farm subsidies and campaign contribution received from agricultural lobbies.

port the bailout, the results of the empirical analysis were more mixed. The prediction that higher outside lobby contributions increase the amount received from the financial special interest is strongly supported. The estimate on $outside$ is estimated to be positive at the 1% significance level in all three specifications. The prediction that higher financial employment in a state should be associated with lower lobbying receipts from the financial special interest is only weakly supported, however. The coefficient estimate on $weightfin$ is negative for the total finance and commercial banking models, but it is only statistically significant for the commercial banking model.[23] These results are summarized in Table 5.

4.3.2 House results

The probit analysis results for the House are presented in tables 6, 7, and 8. As in the Senate specifications, the coefficient estimates are all in accord with the comparative static predictions of the theoretical section. The estimated coefficient on the financial sector lobbying receipts variables is positive in all three specifications. For the total finance specification and for the commercial banking specification, the estimate is positive at the 1% significance level, though it is not significant at the 10% significance level for the securities and investments specification. The marginal effects are also interesting for the House. A marginal increase in contributions from the average of 2.61 (recall that contributions to representatives are reported in $10,000s) increases the probability that a representative supports the bailout legislation by 4.4 percentage points, averaging across representatives. Moreover, the marginal effects from campaign contributions from finance are estimated to be positive and significant at the 1% level for the total finance and commercial banking specifications.[24] The estimated coefficient on other pressure group contributions is negative and statistically significant at the 5% level in the total finance specification and at the 10% level for the commercial banking specification. It

[23] An underlying assumption here was that lobbyists are operating in a competitive environment and are not over-paying politicians. It is implicitly assumed that lobbyists understand the electoral constraints under which politicians are operating. See the market for influence model of Becker (1983) for more on this. To the extent that the prices are for influence are shown not to depend on the re-election constraints of politicians, then lobbyists are not behaving optimally.

[24] It is interesting to note that the marginal effects that I have estimated are similar to those estimated by Baldwin and Magee (2000) in their study of influence over representatives in the context of free trade legislation. They have estimated that, for the NAFTA vote, a $10,000 increase beyond the mean from labor increased the probability that a representative voted against NAFTA by 5.2 percentage points. An increase of $10,000 from business interest increased the probability that a representative voted for NAFTA by 1.2 percentage points. Their paper includes more controls for district characteristics, so possibly some of my estimates suffer from an omitted variable bias.

is only marginally significant for the securities specification, though estimated with the predicted sign. The measure of importance of the finance industry for constituency employment is estimated to have a positive effect, but significant at the 10% level only for the commercial banking specification.[25] Interestingly, the measure of ideology is only marginally significant in the Senate, whereas it is highly significant in the House. More liberal representatives have a higher probability of supporting the bailout.[26] A similar procedure for calculating the percentage of correct predictions was used for the House regressions as well. These measures of fit are summarized in tables 6, 7, and 8.

For the analysis of the House as well, there was a serious consideration of a possible endogeneity problem, so I also performed the OLS regression in equation (4) using the House data. The failure to reject a null hypothesis of independent error terms was even stronger in the House, assuaging any concerns of an endogeneity problem described above. The coefficients of correlation between error terms are similarly reported in the last column of the probit results tables for the House.

In terms of the corollary log-linear regressions, the variable $outside$ is again found to be strongly significant and positive, as predicted in the theoretical section. There is less support however for the prediction on the $weightfin$ variable, as it was insignificant in all three specifications. Again, this variable is not a very good measure of congressional constituencies, which explains its insignificance in the House regressions. These results are summarized in Table 9.

5 Conclusion

This paper has presented a model of congressional voting on a bill which supports a special interest that is politically unpopular. Congressmen balance rents from special interest against risking getting voted out of office for taking rents and voting to support the special interest. If politicians vote courageously to support the unpopular policy because they believe it to be in the best interest of the nation, then there should be, on average, no relation between lobby receipts from the special interest and probability of supporting the bill. The empirical section analyses this possibility with an application to the finan-

[25] It is worth noting, however, that data for financial sector employment by congressional district is not readily available, so state data was used instead. In this light, the insignificance of the estimated coefficient is not surprising. I am working on getting data for at the congressional district level for this variable.

[26] Combined with the observation that representatives are less influenced by constituency characteristics, this suggests that representatives are have ideologies that are less malleable to electoral pressures, which is odd considering that they must sit for re-election more frequently.

cial bailout bill of 2008. The null hypothesis that politicians behaved magnanimously in the financial bailout is rejected, as the probit analysis identifies a strong positive relation between lobbying receipts from the financial sector and the probability that a legislator supported the bailout. It appears from the results that the financial bailout bill was for sale.

6 Appendix of tables

Table 2: INFLUENCE IN SENATE - TOTAL FINANCIAL SECTOR

	Vote Probit $\hat{\beta}/(p-\text{value})$	MFX at means $\hat{\beta}/(p-\text{value})$	Mean MFX $\hat{\beta}/(p-\text{value})$	Contributions OLS $\hat{\beta}/(p-\text{value})$
fincont	0.159^{**}	0.044^{**}	0.044^{**}	
	(0.025)	(0.015)	(0.015)	
outside	-0.011^{*}	-0.003^{*}	-0.003^{*}	0.081^{***}
	(0.077)	(0.061)	(0.063)	(0.000)
weightfin	0.422^{**}	0.116^{**}	0.115^{**}	-0.423
	(0.033)	(0.025)	(0.022)	(0.191)
finimport	-0.118	-0.033	-0.032^{*}	1.191^{***}
	(0.110)	(0.106)	(0.094)	(0.000)
DW	-1.687^{*}	-0.465^{*}	-0.462^{**}	1.278
	(0.054)	(0.051)	(0.043)	(0.506)
Republican	1.211	0.328	0.274^{**}	-1.979
	(0.145)	(0.130)	(0.044)	(0.275)
committee	-0.347	-0.098	-0.094	2.127^{***}
	(0.328)	(0.331)	(0.329)	(0.004)
constant	0.475			-6.178^{***}
	(0.671)			(0.006)
N	96	96	96	96
Pseudo/Adj. R^2	0.1542			0.8753
# Correct	71			
%Correct	73.96			
corr$(u_i v_i)$				-0.009
$(p-\text{value})$				(0.9334)

Notes: Campaign contribution variables are measured in $100,000s. *, **, and *** denotes significance at 10, 5 and 1 percent levels of confidence, respectively.

Table 3: INFLUENCE IN SENATE - COMMERCIAL BANKING SECTOR

	Vote Probit $\hat{\beta}/(p-\text{value})$	MFX at means $\hat{\beta}/(p-\text{value})$	Mean MFX $\hat{\beta}/(p-\text{value})$	Contributions OLS $\hat{\beta}/(p-\text{value})$
bankcont	0.566^{**}	0.169^{**}	0.154^{**}	
	(0.037)	(0.034)	(0.026)	
outsidebank	-0.008^{*}	-0.003^{*}	-0.002^{*}	0.015^{***}
	(0.097)	(0.093)	(0.085)	(0.000)
weightfin	0.494^{***}	0.147^{***}	0.135^{***}	-0.070
	(0.008)	(0.005)	(0.003)	(0.273)
bankimport	-0.644^{**}	-0.192^{**}	-0.175^{**}	0.912^{***}
	(0.023)	(0.022)	(0.014)	(0.000)
DW	-1.317	-0.392	-0.358	0.285
	(0.129)	(0.129)	(0.119)	(0.466)
Republican	1.044	0.305	0.251^{*}	-0.209
	(0.199)	(0.181)	(0.087)	(0.563)
committee	-0.130	-0.039	-0.037	0.229
	(0.702)	(0.704)	(0.704)	(0.120)
constant	-0.293		-1.186^{***}	
	(0.978)		(0.008)	
N	96	96	96	96
Pseudo/Adj. R^2	0.1550			0.8236
# Correct	74			
%Correct	77.08			
Mean predicted prob.			0.777	
corr$(u_i v_i)$				-0.006
$(p-\text{value})$				(0.9541)

Notes: Campaign contribution variables are measured in \$100,000s. *, **, and *** denotes significance at 10, 5 and 1 percent levels of confidence, respectively.

Table 4: INFLUENCE IN SENATE - SECURITIES AND INVESTMENTS SECTOR

	Vote Probit $\hat{\beta}/(p-\text{value})$	MFX at means $\hat{\beta}/(p-\text{value})$	Mean MFX $\hat{\beta}/(p-\text{value})$	Contributions OLS $\hat{\beta}/(p-\text{value})$
seccont	0.272^{*}	0.033^{**}	0.075^{**}	
	(0.055)	(0.029)	(0.043)	
outsidesec	-0.008	-0.002	-0.002	0.040^{***}
	(0.147)	(0.118)	(0.133)	(0.000)
weightfin	0.380^{**}	0.010^{**}	0.105^{**}	-0.211
	(0.047)	(0.040)	(0.034)	(0.248)
secimport	-0.152	-0.040	-0.042	1.195^{***}
	(0.252)	(0.241)	(0.242)	(0.000)
DW	-1.638^{*}	-0.429^{*}	-0.451^{**}	1.138
	(0.059)	(0.057)	(0.047)	(0.313)
Republican	1.213	0.314	0.271^{**}	-1.535
	(0.149)	(0.138)	(0.045)	(0.152)
committee	-0.456	-0.124	-0.122	-1.225^{***}
	(0.197)	(0.200)	(0.194)	(0.004)
constant	0.342			-3.380^{***}
	(0.754)			(0.008)
N	96	96	96	96
Pseudo/Adj. R^2	0.1527			0.9053
# Correct	73			
%Correct	76.04			
corr$(u_i v_i)$				-0.006
$(p-\text{value})$				(0.9526)

Notes: Campaign contribution variables are measured in \$100,000s. *, **, and *** denotes significance at 10, 5 and 1 percent levels of confidence, respectively.

Table 5: ESTIMATING CONTRIBUTIONS TO SUPPORTIVE SENATORS - DEPENDENT VARIABLE: $\log(contributions)$

	Total Finance $\hat{\beta}/(p-\text{value})$	Commercial Banks $\hat{\beta}/(p-\text{value})$	Securities and Investments $\hat{\beta}/(p-\text{value})$
$\log(outside)$	1.306^{***}	2.145^{***}	1.476^{***}
	(0.000)	(0.000)	(0.000)
weightfin	-0.007	-2.95^{*}	0.032
	(0.905)	(0.100)	(0.692)
import	0.095^{***}	0.836^{*}	0.130^{***}
	(0.000)	(0.000)	(0.000)
DW	0.258^{*}	0.048	0.150
	(0.098)	(0.916)	(0.484)
committee	0.162	0.254	0.326^{*}
	(0.258)	(0.541)	(0.100)
constant	-8.637^{***}	1.853	-12.118^{***}
	(0.000)	(0.250)	(0.000)
N	71	71	71
Adjusted R^2	0.7807	0.4884	0.7013

Notes: *, **, and *** denotes significance at 10%, 5%, and 1% significance levels.

Table 6: INFLUENCE IN THE HOUSE - TOTAL FINANCIAL SECTOR

	Vote Probit $\hat{\beta}/(p-\text{value})$	MFX at means $\hat{\beta}/(p-\text{value})$	Mean MFX $\hat{\beta}/(p-\text{value})$	Contributions OLS $\hat{\beta}/(p-\text{value})$
fincont	0.032^{***}	0.012^{***}	0.011^{***}	
	(0.001)	(0.009)	(0.008)	
outside	-0.003^{**}	-0.001^{**}	-0.001^{**}	0.086^{***}
	(0.016)	(0.015)	(0.014)	(0.000)
weightfin	0.071	0.027	0.024	0.633
	(0.314)	(0.313)	(0.312)	(0.124)
finimport	0.025	0.009	0.008	1.125^{***}
	(0.224)	(0.224)	(0.222)	(0.000)
DW	-0.874^{**}	-0.331^{**}	-0.307^{***}	-2.249
	(0.014)	(0.014)	(0.009)	(0.320)
Republican	-0.034	-0.013	-0.011	2.480
	(0.925)	(0.925)	(0.925)	(0.278)
committee	-0.410^{*}	-0.160^{**}	-0.140^{*}	3.652^{***}
	(0.055)	(0.058)	(0.057)	(0.002)
constant	0.685			-12.113^{***}
	(0.164)			(0.000)
N	433	433	433	433
Pseudo/Adj. R^2	0.1197			0.7000
# Correct	292			
%Correct	67.44			
corr$(u_i v_i)$				-0.0001
$(p-\text{value})$				(0.9976)

Notes: Campaign contribution variables are measured in \$10,000s. *, **, and *** denotes significance at 10, 5 and 1 percent levels of confidence, respectively.

Table 7: INFLUENCE IN THE HOUSE - COMMERCIAL BANKING SECTOR

	Vote Probit $\hat{\beta}/(p-\text{value})$	MFX at means $\hat{\beta}/(p-\text{value})$	Mean MFX $\hat{\beta}/(p-\text{value})$	Contributions OLS $\hat{\beta}/(p-\text{value})$
bankcont	0.127^{***}	0.049^{***}	0.044^{***}	
	(0.008)	(0.007)	(0.006)	
outsidebank	-0.002^{*}	-0.001^{*}	-0.001^{*}	0.015^{***}
	(0.067)	(0.067)	(0.0634)	(0.000)
weightfin	0.128^{*}	0.049^{*}	0.044^{*}	0.086
	(0.059)	(0.059)	(0.056)	(0.296)
bankimport	-0.029	-0.011	-0.010	1.381^{***}
	(0.689)	(0.689)	(0.689)	(0.000)
DW	-0.794^{**}	-0.303^{**}	-0.286^{**}	-0.371
	(0.027)	(0.027)	(0.018)	(0.419)
Republican	-0.103	-0.039	-0.035	0.562
	(0.775)	(0.775)	(0.778)	(0.994)
committee	-0.242	-0.094	-0.084	0.002
	(0.250)	(0.256)	(0.259)	(0.994)
constant	0.330			-2.458^{***}
	(0.489)			(0.000)
N	433	433	433	433
Pseudo/Adj. R^2	0.1049			0.7355
# Correct	293			
%Correct	67.67			
corr$(u_i v_i)$				-0.002
$(p-\text{value})$				(0.9691)

Notes: Campaign contribution variables are measured in $10,000s. *, **, and *** denotes significance at 10, 5 and 1 percent levels of confidence, respectively.

Table 8: INFLUENCE IN THE HOUSE - SECURITIES AND INVESTMENTS SECTOR

	Vote Probit $\hat{\beta}/(p-\text{value})$	MFX at means $\hat{\beta}/(p-\text{value})$	Mean MFX $\hat{\beta}/(p-\text{value})$	Contributions OLS $\hat{\beta}/(p-\text{value})$
seccont	0.026	0.010	0.009	
	(0.324)	(0.323)	(0.323)	
outsidesec	-0.002	-0.001	-0.001	0.039^{***}
	(0.114)	(0.114)	(0.112)	(0.000)
weightfin	0.036	0.014	0.012	-0.032
	(0.661)	(0.611)	(0.611)	(0.881)
secimport	0.124^{**}	0.047^{**}	0.042^{**}	1.933^{***}
	(0.043)	(0.042)	(0.040)	(0.000)
DW	-0.770^{**}	-0.292^{**}	-0.265^{**}	-2.435^{**}
	(0.032)	(0.032)	(0.025)	(0.034)
Republican	-0.045	-0.017	-0.015	2.044^{*}
	(0.901)	(0.901)	(0.901)	(0.079)
committee	-0.269	-0.104	-0.092	-0.614
	(0.184)	(0.190)	(0.190)	(0.294)
constant	0.727			-4.225^{***}
	(0.142)			(0.004)
N	433	433	433	433
Pseudo/Adj. R^2	0.1212			0.7793
# Correct	301			
%Correct	69.52			
corr$(u_i v_i)$				0.002
$(p-\text{value})$				(0.9698)

Notes: Campaign contribution variables are measured in $100,000s. *, **, and *** denotes significance at 10, 5 and 1 percent levels of confidence, respectively.

Table 9: ESTIMATING CONTRIBUTIONS TO SUPPORTIVE REPRESENTATIVES - DEPENDENT VARIABLE: $\log(contributions)$

	Total Finance	Commercial Banks	Securities and Investments
	$\hat{\beta}/(p-\text{value})$	$\hat{\beta}/(p-\text{value})$	$\hat{\beta}/(p-\text{value})$
log(*outside*)	1.461^{***}	1.531^{***}	1.724^{***}
	(0.000)	(0.000)	(0.000)
weightfin	-0.005	0.010	0.118
	(0.907)	(0.933)	(0.289)
import	0.110^{***}	0.856^{***}	0.309^{***}
	(0.000)	(0.000)	(0.000)
DW	0.026	0.155	0.148
	(0.788)	(0.580)	(0.556)
committee	0.243^{*}	-0.237	0.474
	(0.069)	(0.558)	(0.154)
constant	-10.140^{***}	-14.023^{***}	-16.305^{***}
	(0.000)	(0.000)	(0.000)
N	261	261	71
Adjusted R^2	0.7694	0.4391	0.7013

Notes: *, **, and *** denotes significance at 10%, 5%, and 1% significance levels.

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