

# Internet Appendix to "The Vote is Cast: The Effect of Corporate Governance on Shareholder Value"

This Internet Appendix contains supplementary information to the contents of the published article. The structure of this Appendix is as follows: In Section A, we provide a simple analytical illustration of how the market price of the firm should react to different vote outcomes on the day of the vote. In Section B, we report supplemental evidence about the distribution of votes and, in particular, about its continuity around the majority threshold. Finally, in Section C, we show some additional results relative to the selection of firms around the discontinuity.

## A. Derivation of the Price Reaction on the Day of the Vote

In this Section we show how to calculate the average price expectation formed in the market prior to observing a given vote outcome  $E(W|v)$ . Note that an explicit calculation of this function is not necessary for our identification strategy; we only need it to be a continuous function around the vote threshold.

The market reaction on the day of the vote, given that we observe a vote  $v$ , is the difference between the market value of the firm after the vote and the average expected value before the vote  $W(v) - E(W|v)$ . If the market expected a vote  $x$  but the realized vote was  $v$  we can denote the market expectation on that day as  $E(W|E(v) = x)$  and this event has a density probability function  $f(v|E(v) = x)$ . To calculate  $E(W|v)$  we need to take into account the possibility that a given realized vote outcome  $v$  may correspond to different prior expectations. Therefore,  $E(W|v)$  should take into account all the possible combinations of prior expectations that may have led to  $v$

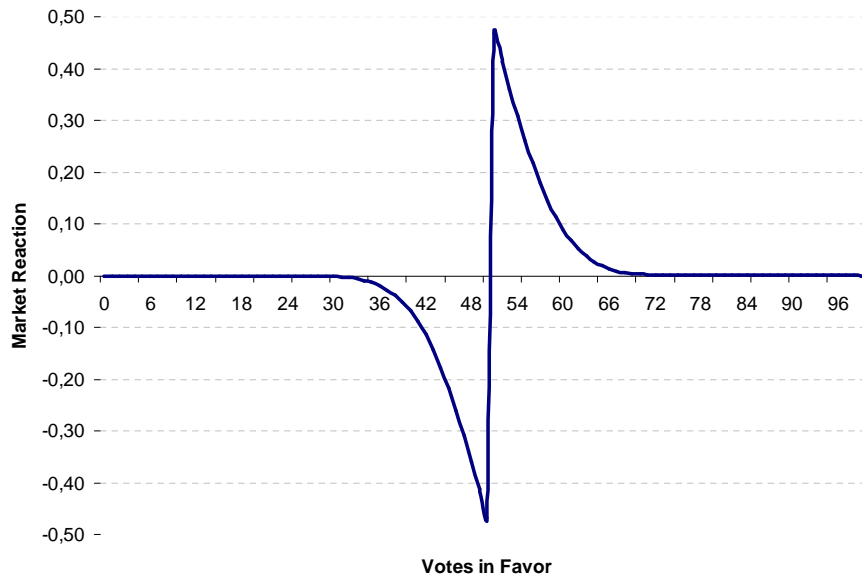
$$\begin{aligned} E(W|v) &= \int_{x=0}^{x=100} E(W|E(v) = x) \frac{f(v|E(v) = x)}{\Phi(v)} g(x) dx \\ \Phi(v) &= \int_{x=0}^{x=100} f(v|E(v) = x) g(x), \end{aligned}$$

where  $g(v)$  is the density function of all the possible prior expectations on  $v$ , and  $\Phi$  is a rescaling factor to ensure that we are computing an expectation.

Regardless of the specific distributions of the priors of the market,  $E(W|v)$  is the same in an arbitrarily close interval around the threshold of 50% of the votes ( $E(W|v)$  is represented in Figure 1 of the published text by the dashed line). To illustrate the shape of the market reaction to the outcome of the vote with reasonable distributions, we assume that the value of the proposal  $W(v) = 0$

if  $v < 50\%$  and  $W(v) = 1$  if  $v \geq 50\%$ , and that the market reaction is given by  $W(v) - E(W|v)$ .

In Figure IA.1 we show  $W(v) - E(W|v)$  for a particular example. We assume a population of firms with 100 shareholders each. Each shareholder vote is distributed i.i.d., voting in favor of the proposal with probability  $\rho$  and against with probability  $(1 - \rho)$ . We also assume that each firm has a fixed  $\rho$  but that it can be different across firms. We assume all  $\rho$  are equally probable ex-ante so  $\rho$  is uniformly distributed between zero and 100.



**Figure 1A.1. Market reaction to the vote**

Figure IA.1 shows the expected market reaction for each vote outcome, taking into account how expectations were formed prior to the vote. The figure reflects how votes that are far from the majority threshold carry virtually no market reaction, as the outcome of the vote is almost fully incorporated into prices before the meeting.<sup>β</sup> The market reaction peaks at the majority threshold.

Figure IA.2 is equivalent to Figure 1 in the main text when proposals are not binding. That is: Figure 1 applies when the probability of implementation goes from zero to one at the majority threshold. Alternatively, Figure IA.2 relaxes this assumption by simply assuming that the implementation probability is growing with the vote, and that there is a jump in the probability of implementation at the majority threshold.

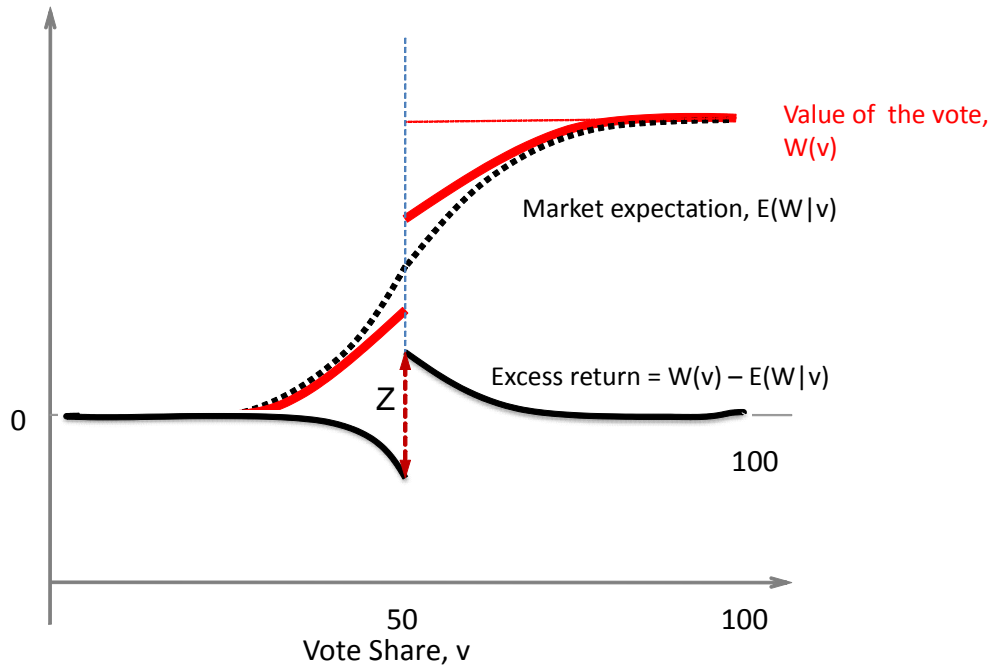


Figure IA.2. Theoretical reaction to the vote when proposals are not binding.

*B. Distribution of Votes*

Figure IA.3 condenses the information of Figure 3 into a single histogram. It represent the density of votes for all types of proposals grouped in bins of 2%.

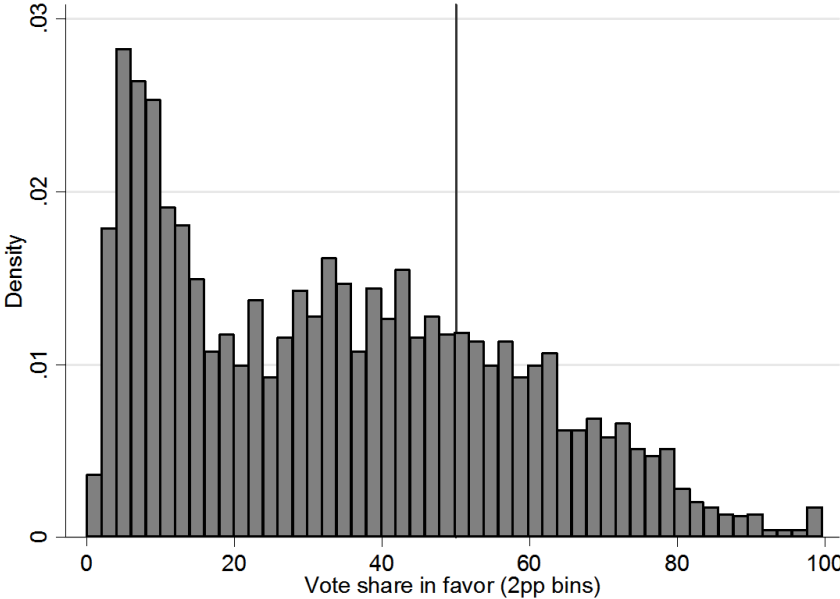


Figure IA.3. Distribution of vote shares for all shareholder governance proposals.

Figures IA.4, IA.5 and IA.6 show that the distribution of votes around the majority threshold is continuous by reporting a test based on McCrary 2008.

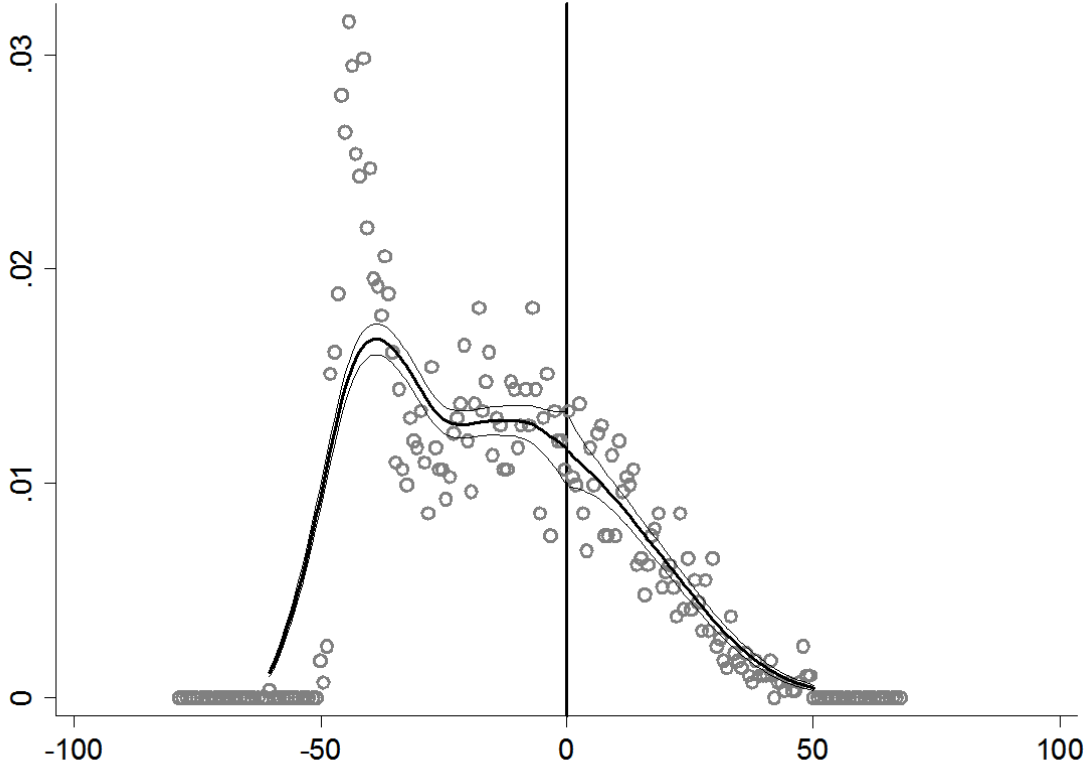


Figure IA.4. All shareholder governance proposals.

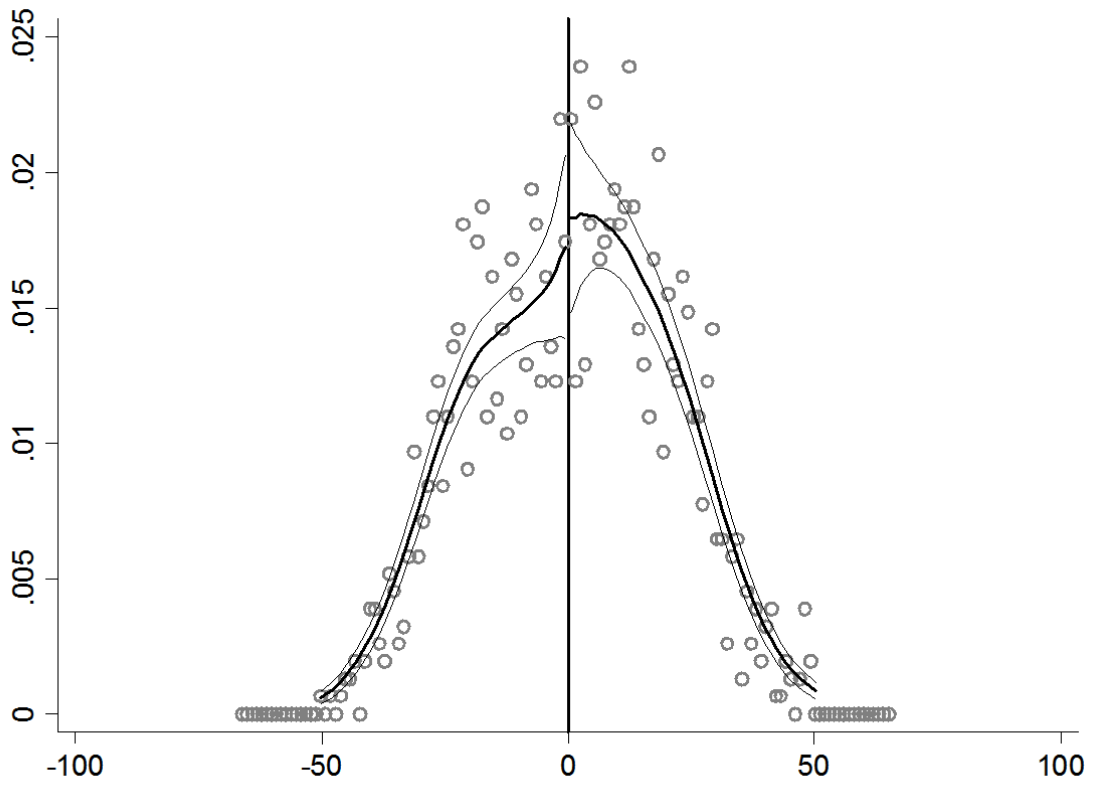


Figure IA.5. Shareholder governance proposals to remove antitakeover provisions (G-index).

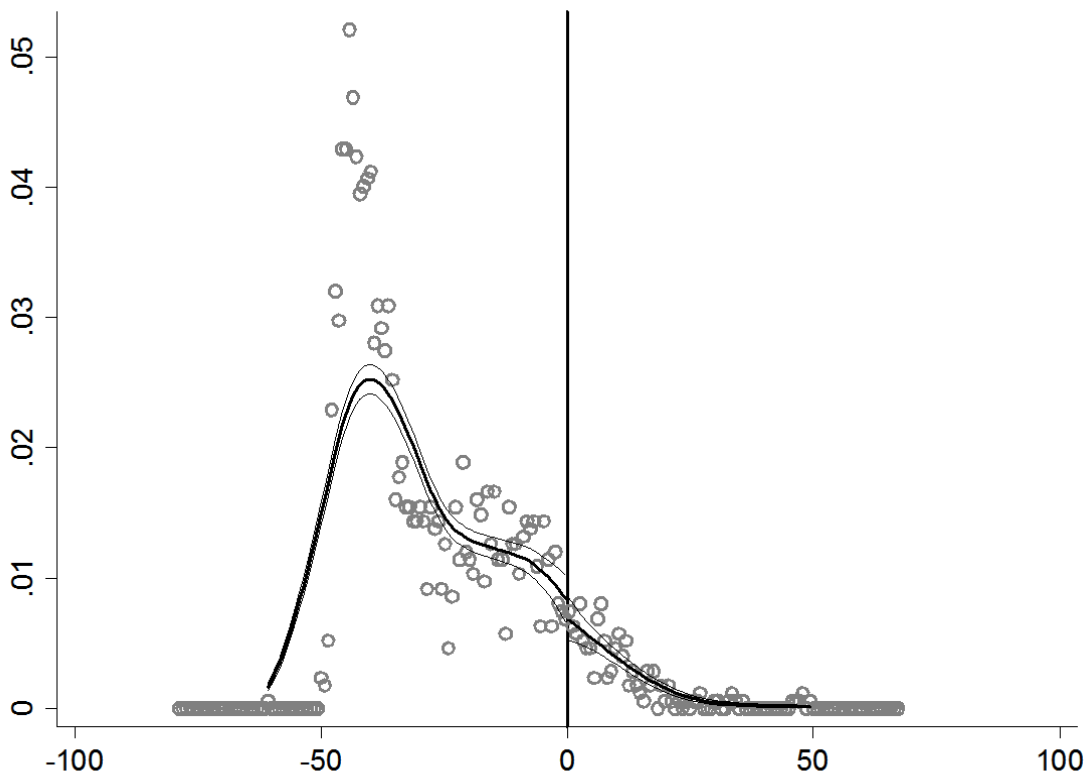
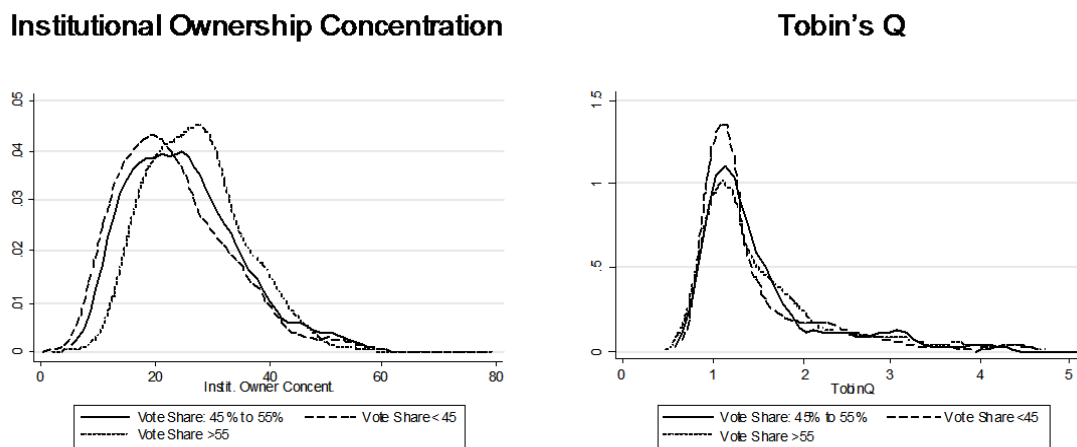


Figure IA.6. Other shareholder proposals (non-G-index).

### C. Distribution of Firm Characteristics

To have a sense of what kinds of firms have observations that fall around the discontinuity, we plot the distribution of institutional ownership and of Tobin's Q in the year before the meeting for (i) firms that have a vote share lower than 45%; (ii) firms that have between 45% and 55% votes in favor (those falling around the discontinuity); and (iii) firms with more than 55 percent of votes in favor. Figures IA.5 and IA.6 show that firms with vote shares around the discontinuity fall roughly in between firms in the other two groups (e.g., the distribution of institutional ownership for proposals in the G-index is between the other two groups, and so is the distribution of Tobin's Q). Even though one cannot immediately generalize our results to all firms, the evidence suggests that firms that fall around the discontinuity are not "extreme" observations, but rather firms with average characteristics.

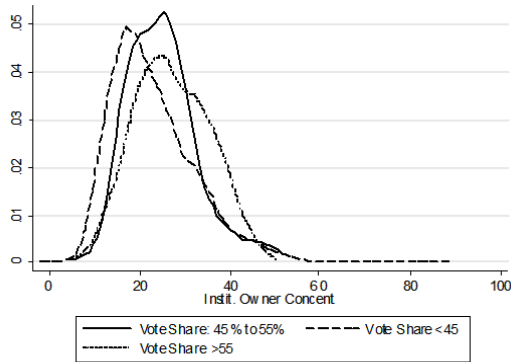


**Figure IA.7: Distribution of institutional ownership and Tobin's Q by outcome of vote –G-index proposals.**

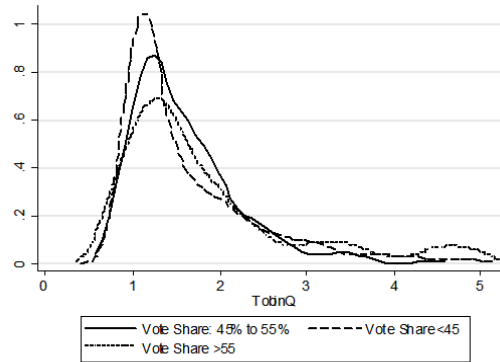
The distribution of the percentage of institutional ownership and Tobin's Q is shown for three different brackets of vote outcomes:  $[0,45]$ ,  $[45,55]$ , and  $[55,100]$ . Figure IA.7 includes all the proposals in the sample that are included in the G-index.



### Institutional Ownership Concentration



### Tobin's Q



**Figure IA.8: Distribution of institutional ownership and Tobin's Q by outcome of vote –other proposals.**

The distribution of the percentage of institutional ownership and Tobin's Q is shown for three different brackets of vote outcomes:  $[0,45]$ ,  $[45,55]$ , and  $[55,100]$ . Figure IA.8 includes all the proposals in the sample that are not included in the G-index.

**TABLE IA.I.****Abnormal Returns around the Majority Threshold**

This table presents regressions of the abnormal returns on the day of the meeting  $t = 0$  on whether the proposal passed. Abnormal returns are computed using the Fama-French and momentum factors from Carhart (1997). Column 1 estimates are based on the whole sample. Column 2 restricts the sample to observations with a vote share within 10 points of the threshold, column 3 to five points, and so forth. Column 6 introduces a polynomial in the vote share of order four, one on each side of the threshold, and uses the full sample. All columns control for year fixed effects; standard errors are clustered by firm. Significance at the 10%, 5%, and 1% levels is indicated by \*, \*\*, and \*\*\*, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A. All Shareholders Proposals</i>						
	All votes	-10;+10	-5;+5	-2;+2	-1;+1	Full Model
Pass	0.000922 (0.000924)	0.00230 (0.00163)	0.00761*** (0.00256)	0.0105** (0.00502)	0.0139* (0.00756)	0.0131*** (0.00494)
Observations	3904	909	450	183	91	3904
R <sup>2</sup>	0.000	0.002	0.024	0.032	0.039	0.014
<i>Panel B. antitakeover Proposals (in G-index)</i>						
	All votes	-10;+10	-5;+5	-2;+2	-1;+1	Full Model
Pass	-9.51e-05 (0.00126)	0.00207 (0.00224)	0.00940*** (0.00355)	0.0162** (0.00719)	0.0221** (0.0102)	0.0169** (0.00656)
Observations	1531	523	264	114	61	1531
R <sup>2</sup>	0.000	0.002	0.027	0.053	0.070	0.033
<i>Panel C. Shareholder Proposals Excluding antitakeover Proposals</i>						
	All votes	-10;+10	-5;+5	-2;+2	-1;+1	Full Model
Pass	0.00202 (0.00190)	0.00149 (0.00183)	0.00399* (0.00237)	0.00112 (0.00430)	-0.00511 (0.00494)	0.00529 (0.00474)
Observations	2373	386	186	69	30	2373
R <sup>2</sup>	0.001	0.002	0.014	0.001	0.035	0.016

**TABLE IA.II**  
**Abnormal Returns around the Threshold**

This table presents regressions of the abnormal returns on  $t = 0$  on whether the proposal passed, allowing for polynomials of different order on the right-hand side. Abnormal returns are computed using the Fama-French and momentum factors from Carhart (1997). Columns one to five use two polynomials of increasing order in the vote share,  $v$ , one on each side of the threshold (right and left). Column 6 displays a unique polynomial of order eight. The specification is equation (7). All columns control for year fixed effects, firm-meeting fixed effects, and distance-to-the-election effects; standard errors in parentheses are clustered by firm. Significance at the 10%, 5%, and 1% levels is indicated by \*, \*\*, and \*\*\*, respectively.

<i>Order of Polynomial:</i>	Order 2 (1)	Order 3 (2)	Order 4 (3)	Order 5 (4)	Order 6 (5)	One polynom. (6)
Pass	0.00554** (0.00268)	0.00756** (0.00359)	0.0131*** (0.00490)	0.0125** (0.00617)	0.0141** (0.00702)	0.00828** (0.00329)
right V	1.00e-05 (0.000126)	-0.000158 (0.000286)	-0.000704 (0.000593)	-0.000733 (0.000940)	-0.000425 (0.00141)	
right V <sup>2</sup>	-6.31e-08 (2.37e-06)	-8.49e-06 (1.30e-05)	-5.61e-05 (4.57e-05)	-5.99e-05 (9.80e-05)	-4.98e-06 (0.000218)	
right V <sup>3</sup>		-1.14e-07 (1.72e-07)	-1.56e-06 (1.30e-06)	-1.75e-06 (4.21e-06)	2.17e-06 (1.47e-05)	
right V <sup>4</sup>			-1.43e-08 (1.23e-08)	-1.82e-08 (7.92e-08)	1.13e-07 (4.78e-07)	
right V <sup>6</sup>				-0 (5.44e-10)	2.03e-09 (7.34e-09)	
right V					0 (0)	
left V	-0.000741** (0.000322)	-0.00113* (0.000653)	-0.00315*** (0.00115)	-0.00264 (0.00206)	-0.00469 (0.00333)	
left V <sup>2</sup>	1.74e-05** (8.74e-06)	4.06e-05 (3.68e-05)	0.000254** (9.99e-05)	0.000171 (0.000269)	0.000639 (0.000601)	
left V <sup>3</sup>		-3.50e-07 (5.93e-07)	-7.91e-06** (3.31e-06)	-2.94e-06 (1.46e-05)	-4.48e-05 (4.78e-05)	
left V <sup>4</sup>			8.32e-08** (3.72e-08)	-4.01e-08 (3.42e-07)	1.69e-06 (1.85e-06)	
left V <sup>6</sup>				1.07e-09 (2.87e-09)	-3.22e-08 (3.42e-08)	
left V					2.39e-10 (2.40e-10)	
V						-0.000621*** (0.000234)
V <sup>2</sup>						-1.21e-05* (6.71e-06)
V <sup>3</sup>						1.32e-06** (5.16e-07)
V <sup>4</sup>						2.40e-08* (1.26e-08)
V <sup>6</sup>						-1.07e-09** (4.19e-10)
V <sup>7</sup>						-0** (0)
V						0*** (0)
V						0** (0)
Observations	3904	3904	3904	3904	3904	3904
R <sup>2</sup>	0.012	0.012	0.014	0.015	0.015	0.013

**TABLE IA.III**

**Pre-differences in Meeting Characteristics as a Function of the Vote Outcome**

This table tests whether passing a vote on the meeting date is systematically related to meeting characteristics. Each row corresponds to a different dependent variable and each entry comes from a separate regression. Each entry in the table reports the coefficient on whether a proposal passed. Columns 1 and 2 report the estimated effect of passing a vote on outcome variable levels. Column 1 presents estimates without controlling for a polynomial in the vote share and therefore estimates the average effect of passing relative to not passing. Column 2 includes the polynomial in the vote share of order four on each side of the threshold such that it estimates the effect at the discontinuity. All columns control for year fixed effects and standard errors (in parentheses) are clustered at the firm level. Significance at the 10%, 5%, and 1% levels is indicated by \*, \*\*, and \*\*\*, respectively.

	(1)	(2)
<i>Panel A.</i>		
Number of Proposals on the day of Meeting	-0.645*** (0.122)	-0.055 -0.294
<i>Panel B.</i>		
Number of Withdrawn Proposals	-0.424*** (0.130)	0.098 (0.223)
<i>Panel C.</i>		
Proponent is Activist Fund	0.033** (0.014)	0.019 (0.041)
Proponent is Company	-0.002 (0.005)	0.002 (0.011)
Proponent is Individual	0.032 (0.029)	-0.027 (0.077)
Proponent is Public Pension Fund	0.027** (0.012)	0.023 (0.036)
Proponent is Union	-0.039* (0.022)	-0.049 (0.072)
Proponent is Other	-0.051*** (0.008)	0.032 (0.020)
Polynomial in the Vote Share	no	yes

**TABLE IA.IV**

**Long-run Effects of Governance Proposals**

This table presents the effect of passing a governance proposal on firm long-term outcomes. The specification in all columns is given by equation (7). All columns allow for a separate effect of antitakeover proposals (labeled as G-index proposals) and Other governance proposals. The dependent variables are: the number of acquisitions (column 1); the acquisitions ratio--sum of all acquisition prices paid divided by the average market capitalization on the first and last day of the year (column 2); the growth rate of capital expenditures (column 3); Tobin Q--the market value of assets divided by the book value of assets, where the market value of assets is computed as the book value of assets plus the market value of common stock minus the book value of common stock and deferred taxes (column 4; Kaplan and Zingales (1997)); book-to-market value of the firm (column 5); return on equity (column 6). See notes to Table II for further sources and definitions. Standard errors in parentheses are clustered by firm. Significance at the 10%, 5%, and 1% levels is indicated by \*, \*\*, and \*\*\*, respectively.

		Acquisitions Count	Acquisitions Ratio	Capex Growth	TobinQ	Book-to- Market	ROE
		(1)	(2)	(3)	(4)	(5)	(6)
Year of meeting, $t$	G-index	-0.00141 (0.120)	-0.00143 (0.00624)	-0.0797 (0.0541)	-0.0127 (0.0470)	-0.0172 (0.0270)	0.00892 (0.0181)
One year later, $t+1$	G-index	-0.0309 (0.102)	0.00234 (0.00619)	-0.117** (0.0577)	0.0596 (0.0612)	-0.0255 (0.0337)	0.0268 (0.0183)
Two years later, $t+2$	G-index	-0.166 (0.109)	-0.000422 (0.00779)	-0.0411 (0.0664)	0.0978 (0.0758)	-0.0648* (0.0342)	0.0189 (0.0177)
Three years later, $t+3$	G-index	-0.181* (0.108)	-0.0124*** (0.00468)	-0.00389 (0.0671)	0.222** (0.0903)	-0.0970*** (0.0362)	0.0179 (0.0181)
Four years later, $t+4$	G-index	0.166 (0.134)	0.00738 (0.00870)	-0.0923 (0.0648)	0.199** (0.0988)	-0.0941** (0.0419)	0.00336 (0.0198)
Year of meeting, $t$	Other	0.0385 (0.122)	-0.00433 (0.00514)	0.114 (0.0832)	0.156*** (0.0459)	-0.0607** (0.0254)	0.0131 (0.0165)
One year later, $t+1$	Other	0.135 (0.132)	-0.00845 (0.00705)	0.0161 (0.106)	0.229** (0.0995)	-0.107** (0.0436)	0.0435*** (0.0158)
Two years later, $t+2$	Other	0.316 (0.223)	0.00972 (0.0111)	0.157 (0.103)	0.00230 (0.197)	0.00972 (0.0724)	0.0829** (0.0399)
Three years later, $t+3$	Other	0.249 (0.214)	-0.00464 (0.00843)	0.463*** (0.144)	-0.0232 (0.164)	-0.0266 (0.0447)	0.112*** (0.0426)
Four years later, $t+4$	Other	0.500** (0.253)	0.0421 (0.0312)	0.664** (0.257)	-0.102 (0.307)	0.0444 (0.101)	0.121*** (0.0462)
Observations		11384	9105	6501	9062	9120	8166
R <sup>2</sup>		0.022	0.008	0.027	0.030	0.024	0.028
Number of firm-meetings		1797	1555	1524	1823	1817	1573

**TABLE IA.V**  
**Long-run effects as a function of the number of proposals passed**

	Tobin Q (1)	Tobin Q (2)	Tobin Q (3)	Book-to-market (4)	Book-to-market (5)	Book-to-market (6)
<i>G-Index Provisions</i>						
Year of meeting, $t$	-0.0123 (0.0471)	-0.0124 (0.0470)	-0.0124 (0.0470)	-0.0172 (0.0270)	-0.0173 (0.0270)	-0.0171 (0.0270)
One year later, $t+1$	0.0602 (0.0614)	0.0600 (0.0613)	0.0600 (0.0613)	-0.0255 (0.0337)	-0.0256 (0.0337)	-0.0253 (0.0337)
Two years later, $t+2$		0.0981 (0.0760)	0.0982 (0.0759)		-0.0649* (0.0342)	-0.0647* (0.0343)
<i># years later:</i>	$t+2$	$t+3$	$t+3$	$t+2$	$t+3$	$t+3$
1 vote passed	0.112 (0.0822)	0.231** (0.0986)	0.210** (0.106)	-0.0666* (0.0351)	-0.102*** (0.0375)	-0.0923** (0.0449)
2 votes passed	0.121 (0.138)	0.432** (0.174)	0.360* (0.203)	-0.128* (0.0669)	-0.222*** (0.0737)	-0.222** (0.0982)
3 votes passed	0.276 (0.232)	0.623** (0.247)	0.571* (0.319)	-0.153 (0.106)	-0.245** (0.102)	-0.284** (0.129)
4 votes passed	0.589* (0.350)	0.884** (0.404)				
5 votes passed	-0.0662 (0.481)			0.144 (0.196)		
Three years later	0.222** (0.0910)		0.222** (0.0905)	-0.0964*** (0.0364)		-0.0968*** (0.0363)
Four years later	0.200** (0.0990)	0.199** (0.0988)		-0.0934** (0.0419)	-0.0939** (0.0418)	
<i>OTHER Provisions</i>						
Year of Meeting, $t$	0.156*** (0.0459)	0.156*** (0.0459)	0.156*** (0.0459)	-0.0607** (0.0254)	-0.0607** (0.0254)	-0.0607** (0.0254)
One year later, $t+1$	0.229** (0.0996)	0.229** (0.0996)	0.229** (0.0996)	-0.107** (0.0436)	-0.107** (0.0436)	-0.107** (0.0436)
Two years later, $t+2$	0.00661 (0.198)	0.00229 (0.197)	0.00228 (0.197)	0.0110 (0.0724)	0.00970 (0.0724)	0.00973 (0.0724)
Three years later	-0.0258 (0.164)	-0.0122 (0.166)	-0.0232 (0.164)	-0.0268 (0.0446)	-0.0195 (0.0443)	-0.0266 (0.0447)
Four years later	-0.106 (0.306)	-0.105 (0.308)	-0.0767 (0.314)	0.0435 (0.101)	0.0430 (0.102)	0.0540 (0.0980)
Observations	9,062	9,062	9,062	9,120	9,120	9,120
R <sup>2</sup>	0.031	0.030	0.030	0.025	0.024	0.024
Number of firm-meetings	1,823	1,823	1,823	1,817	1,817	1,817

**TABLE IA.VI**  
**Firm Characteristics Across Samples**

This table compares averages of firm characteristics across four different samples: column 1 displays the averages for the sample of all proposals, column 2 for the sample of proposals that obtain a close vote (i.e. between 40% and 60%), column 3 for the sample of firms in the S&P1500 as of June 2007, and column 4 for the sample of firms in the Compustat database. Standard errors are in parentheses. Columns 5 to 8 display the *t*-statistic of the difference between the means of each sample. All accounting variables are obtained from Compustat: Tobin's Q is defined as the market value of assets (AT+mkvalt\_f-CEQ) divided by the book value of assets (AT) and balance sheet Deferred Taxes and Investment Tax Credit (TXDITC). Book-to-Market is the ratio of book value of common equity (previous fiscal year) to market value of common equity (end of previous calendar year). Return on Equity is defined as net income (NI) divided by (CEQ+TXDITC). Return on Assets is defined as EBITDA/AT.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All Proposals	Close Proposals	S&P1500	Compustat	Diff 1-3 <i>t</i> -Statistic	Diff 1-4 <i>t</i> -Statistic	Diff 2-3 <i>t</i> -Statistic	Diff 2-4 <i>t</i> -Statistic
Log of Total Assets	9.192 (0.0294)	9.194 (0.055)	7.484 (0.013)	5.871 (0.0080)	49.57	108.83	30.03	59.5
Tobin Q	1.73 (0.0191)	1.75 (0.0394)	2.00 (0.0122)	1.95 (0.0069)	-11.38	-11.08	-6.13	-5.16
Book-to-Market	0.551 (0.0078)	0.521 (.0145)	0.525 (0.0030)	0.642 (0.0022)	3.11	-11.12	-0.24	-8.22
Return on Equity	0.108 (0.0075)	0.1269 (0.0167)	0.097 (0.0027)	-0.072 (0.0028)	1.30	22.45	1.7	11.6
Return on Assets	0.116 (0.0015)	0.120 (0.0027)	0.128 (0.00078)	0.037 (0.0007)	-6.81	45.75	-2.95	28.9
Capital Expenses (\$mil)/Assets	0.050 (0.00007)	0.047 (0.0013)	0.050 (0.0004)	0.050 (0.0002)	-0.71	0.7	-2.81	-2.14
Cash Flow /Assets	0.088 (0.0006)	0.092 (0.002)	0.095 (0.0006)	0.017 (0.0007)	-4.22	45.49	-1.14	29.9