Shareholder Proposals as Governance Mechanism: Insights from the Market Value of Corporate Voting Rights*

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Abstract

This paper studies the influence of shareholder proposals on the market value of voting rights. We back out implied voting values from prices of single-stock options and relate them to the rich set of characteristics offered by shareholder proposals, including resolution types, approval rates, and sponsors. The empirical analysis is carried out on 3,083 shareholder proposals in S&P-1500 firms with liquid stock options in the period 2002-2013. Voting values are (significantly) positive prior to the last cum-voting date of general meetings (0.28% of the share price on average) and drop to zero afterward, when the shareholder register is closed. Shareholder proposals lead to significantly higher voting values when ballots are contested, i.e, approval rates are close to 50%. Votes on the redemption of antitakeover measures or the increase of board independence are found to be particularly valuable. Conversely, shareholder proposals that deal with managerial compensation, shareholder rights, corporate transparency, environmental issues, or social responsibility do not lead to higher voting values. Similarly, the identity of the resolution sponsor is largely unrelated to the value of voting rights. However, when labor unions file close-vote proposals that target compensation practices, significantly higher voting values are observable. We attribute this effect to the shareholders' incentives to fight against resolutions filed by unions that would otherwise harm firms' economic prospects.

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This paper studies the influence of shareholder proposals on the market value of voting rights. We back out implied voting values from prices of single-stock options and relate them to the rich set of characteristics offered by shareholder proposals, including resolution types, approval rates, and sponsors. The empirical analysis is carried out on 3,083 shareholder proposals in S&P-1500 firms with liquid stock options in the period 2002-2013. Voting values are (significantly) positive prior to the last cum-voting date of general meetings (0.28% of the share price on average) and drop to zero afterward, when the shareholder register is closed. Shareholder proposals lead to significantly higher voting values when ballots are contested, i.e, approval rates are close to 50%. Votes on the redemption of antitakeover measures or the increase of board independence are found to be particularly valuable. Conversely, shareholder proposals that deal with managerial compensation, shareholder rights, corporate transparency, environmental issues, or social responsibility do not lead to higher voting values. Similarly, the identity of the resolution sponsor is largely unrelated to the value of voting rights. However, when labor unions file close-vote proposals that target compensation practices, significantly higher voting values are observable. We attribute this effect to the shareholders' incentives to fight against resolutions filed by unions that would otherwise harm firms' economic prospects.

1 Introduction

Shareholder proposals offer equity investors a powerful channel to signal their dissatisfaction with boards, executives, and managerial policies. As filing requirements and costs are relatively low,[1] even minority shareholders can raise their voice instead of "voting with their feet". While management resolutions are likely strategically placed in meetings, shareholder proposal are not filtered by management.[2] However, voting outcomes of shareholder proposals are precatory, which has long led researchers to question their effectiveness as governance mechanism.

Early studies in the late 1980s and 1990s tend to conclude that shareholder proposals are rarely filed and have a poor reception among shareholders (see, e.g., Karpoff, Malatesta, and Walkling, 1996; Gillan and Starks, 2000). In fact, in that period shareholder proposals failed to exert a meaningful influence on either firm policies or stock valuations (see, e.g., Karpoff, Malatesta, and Walkling, 1996; Strickland, Wiles, and Zenner, 1996; Black, 1998).

In contrast, recent studies paint a more optimistic picture of shareholder proposals. For example, Thomas and Cotter (2007) and Ertimur, Ferri, and Stubben (2010) show that both the number of filings and the average fraction of approving votes have significantly risen since the turn of the millennium. At the same time, also the responses to successful proposals by corporate boards and financial markets have become stronger (see, e.g., Ertimur, Ferri, and Stubben, 2010; Renneboog and Szilagyi, 2011; Cuñat, Mireia, and Guadalupe, 2012).

In this paper, we contribute to the described body of research by analyzing the influence of shareholder proposals on the market value of corporate voting rights. Thereby, we switch the focus from the more conventional dependent variables - stock returns and Tobin's q - to the value of voting rights. Our analysis also focuses on a different time frame in the chronology of voting cycles. Instead of analyzing the market reaction upon proposal

[1] The proxy costs are borne by the company and a shareholder is eligible to file a proposal if he/she has owned shares with a market value of at least $2,000 or 1% of the voting shares for more than one year before submission.

[2] The fact that managers use their agenda-setter power in connection with management proposals is reflected by their very high approval rates. In a US-sample of 13,405 management-sponsored proposals between 1994 and 2003, Maug and Rydqvist (2009) report an average of 82.8% favorable votes and a success rate of 98.5%.

announcements (as, e.g., Renneboog and Szilagyi, 2011) or voting results (as, e.g., Cuñat, Mireia, and Guadalupe, 2012), we target the time window in the run-up to general meetings, i.e., just before the shareholder book closes. To draw conclusions on the factors driving voting values and gain insights on the empirical importance of shareholder proposals in modern corporations, we exploit the rich cross-section of characteristics offered by shareholder proposals with respect to resolution types (e.g., governance vs. non-governance proposals), approval rates (i.e., uncontested vs. close-vote proposals), firm characteristics, and sponsors. In particular, the analysis relies on a sample of 3,083 shareholder proposals filed in S&P-1500 firms in the period January 2002 - December 2013.

To isolate the effect of shareholder proposals during specific annual meetings from other instances of corporate control (for example the right to call a meeting or merger approvals), we measure voting values via an option-based method. This method extracts voting values over the options' lifetime and thereby allows us to relate the resulting values to specific meetings. We obtain bias-free estimates of corporate voting values by feeding the accurate, but computationally more intensive, optimization model of Kind and Poltera (2013) with initial voting-value proxies obtained via the method of Kalay, Karakas, and Pant (2014). In detail, we use liquid, short-term options which mature before an annual meeting and are traded in a time frame of twenty business days prior to the last cum-voting date, i.e., three days before the closing of the shareholder book on the record date. This *treatment window* measures the value of voting rights when the share register is open and, thus, newly purchased shares allow acquiring investors to participate at the upcoming meeting. To test the reliability of our voting-right measures, we also extract values from options traded during a *control window* that starts after the last cum-voting date and ends before the meeting. During this period, the shareholder book is closed, newly purchased shares do not allow investors to vote at the meeting and, thus, the model should generate voting rights statistically close to zero. As a further placebo test, we compute voting values using options written on a sample of non-voting shares.

For large shareholders, voting rights can be valuable because they allow them to extract private benefits of control from corporations (see, e.g., Demsetz and Lehn, 1985; Grossmann and Hart, 1988; Dyck and Zingales, 2004, among others).[3] Voting rights can also be valuable to minority shareholders, particularly when control contests occur and shares can be sold at a premium (see, e.g., Rydqvist, 1996; Zingales, 1994, 1995). Finally, laboratory experiments suggest that voting rights can have a positive *intrinsic* value - i.e., one beyond the *instrumental* value - which stems from psychological benefits of possessing and exercising decision rights (Bartling, Fehr, and Herz, 2014). This mechanism seems particularly relevant with regard to shareholder proposals because they offer voters the opportunity to signal their approval or dissatisfaction with the way a company is run.

Several empirical drivers of voting-right values have been identified in previous studies. First, international evidence shows that voting values differ remarkably across countries and legal systems. In particular, voting values are found to be negatively related to the degree of legal protection granted to minority shareholders (see, e.g., Zingales, 1994; Nenova, 2003; Dyck and Zingales, 2004). Second, the occurrence of corporate-control events, such as extraordinary shareholder meetings or mergers and acquisitions, is found to increase voting premiums (Kalay, Karakas, and Pant, 2014). Finally, voting-right values are also shown to depend on selected firm characteristics. For example, small and more indebted companies tend to have higher values than large and less levered firms (see, e.g., Barclay and Holderness, 1989; Zingales, 1995). While it is costlier to gain control in larger companies, leverage increases the amount of assets per voting right that can potentially be used to extract private benefits (see, e.g., Jensen, 1986; Harris and Raviv, 1988). Finally, also a firm's ownership structure matters: Voting-right values are highest for an intermediate ownership concentration and close to zero both in firms with a dispersed ownership,

[3]Private benefits of control include the possibility to (i) offer attractive jobs as top managers, directors, or lower-level employees to business partners, friends, and family members, (ii) increase personal popularity, (iii) extract economic resources from controlled companies by "tunneling" (see, e.g., Johnson, La Porta, Lopez-de Silanes, and Shleifer, 2000), i.e., exchanging assets at non-market terms between two companies, or (iv) propagate personal values, preferences, beliefs, and have political influence.

where coordination among shareholder is arguably difficult, and in companies with a majority shareholder (Kind and Poltera, 2013).

The empirical results of this study show that voting-right values are significantly greater than zero in the run-up to annual shareholder meetings, before the last cum-voting date. During this treatment window, the average annualized voting value amounts to 0.28% of the share price and drops to zero just afterward, when the shareholder is closed (control window) and new owners are not entitled to participate to (and vote at) the upcoming meeting. The right to vote for shareholder proposals is found to be valuable only when the resolutions are contested, i.e., their approval rates are close to 50%. Votes at meetings with contested proposals on governance-related issues are particularly valuable with 0.37% of the share price on average. Regression analyses show that the increase in voting values can be attributed to the existence of close votes on board characteristics and the redemption of antitakeover measures. Conversely, we do not find positive voting premiums for shareholder proposals that target issues unrelated to corporate governance, such as environmental issues, corporate transparency (e.g., resolutions on the disclosure of political donations and lobbying behavior), or social responsibility (e.g., standards on human rights and labor, as well as social and gender equality). Furthermore, the results indicate that voting-right values are mainly driven by the content of the proposals and not by the sponsoring shareholder, i.e., whether they are filed by private investors, social activists, pension funds, or religious groups. However, when labor unions file contested proposals that address firms' managerial compensation rules, a significant rise in voting values is observed. We attribute this effect to the adverse impact of compensation resolutions filed by labor unions on firm value (see, e.g., Cai and Walkling, 2011) which induces shareholders to fight against such proposals.

The remainder of the paper is organized as follows. Chapter 2 describes the role of shareholder proposals in the governance of modern corporations and develops suitable research hypotheses. Chapter 3 reviews the methodology to extract corporate voting-right values from option prices and presents the empirical research design. Chapter 4 describes the sample construction, the option data, and the data on shareholder meetings. The results of the empirical analysis are presented and discussed in Chapter 5. Finally, Chapter 6 concludes with a summary of the most important findings.

2 Shareholder Proposals

2.1 Shareholder Proposals as Governance Mechanism

In §8b of Section 240.14a, Title 17, the Code of Federal Regulation (CFR) gives stockholders that have been owning, for at least one year, shares with a market value in excess of $2,000 or 1% of the voting power the right to submit resolutions for a vote at annual meetings. Further, the company (and not the proposal sponsor) bears the cost of preparing and distributing the resolution in the proxy statement. Consequently, the hurdles of eligibility for sponsoring a resolution are low and filing costs are small, which makes shareholder proposals easy to file and, thus, likely representative of true shareholders' concerns.

Although the voting results of shareholder proposals are generally precatory, i.e., they are not legally binding for either the board of directors or executives, they offer equity investors a channel to signal their dissatisfaction with specific managerial practices. There is one exception to this rule in the form of shareholder proposals that target the amendment of corporate by-laws (see, e.g., Gordon, 1997; Hamermesh, 1998). Based on the binding nature of by-laws amendments, shareholders have started to file proposals that aim at changing, or completely redeeming, poison pills previously introduced in the company charter by the board of directors (see, e.g., Black,

1998; Gilson, 2001).[4]

To assess the economic relevance of shareholder proposals as a governance mechanism, researchers have conducted a number of studies focusing on (i) the implementation frequency of successful proposals, (ii) the fraction of favorable votes and approval rates of shareholder resolutions, (iii) the absolute frequency of shareholder proposals in annual meetings, and (iv) the impact of proposal-related news on stock returns. While early studies tend to conclude that shareholder proposals are rarely on the agenda of shareholder meetings, have poor reception among shareholders, and lead to changes in a firm's policy only on rare occasions, more recent investigations indicate that both the relevance and the effectiveness of resolutions have increased substantially.

Karpoff, Malatesta, and Walkling (1996) and Black (1998) note that voting outcomes of shareholder proposals in the last century were often ignored by corporate boards and, therefore, did not trigger policy changes. In the last two decades, however, boards have become much more responsive to successful shareholder resolutions. Ertimur, Ferri, and Stubben (2010) analyze 620 approved shareholder proposals between 1997 and 2004 and observe that implementation rates of successful resolutions increased from 16.1% in 1997 to 40% in 2004. Similarly, Institutional Shareholder Services (ISS) reports that 73 out of the 84 approved shareholder proposals they covered in 2013 were partially or fully implemented.[5] Furthermore, Ertimur, Ferri, and Stubben (2010) and Renneboog and Szilagyi (2011) show that approval rates are the single most important factor in explaining the implementation probability of shareholder proposals. They argue that the fraction of positive votes is strongly correlated with the pressure that a proposal exercises on the board of directors. Along these lines, Ertimur, Ferri, and Stubben (2010) evidence that the re-election probability of outside directors increases significantly if they were previously involved in the implementation of successful shareholder proposals.

There also seems to be a positive time trend regarding the shareholders' reception of shareholder-sponsored proposals. While Gillan and Starks (2000) measure an average fraction of favorable votes of around 20% between 1987 and 1994, Thomas and Cotter (2007) report a rate of 28.4% in their 2002-2004 sample. According to ISS, the average fraction of votes in favor of shareholder proposals was 31.30% between 2005 and 2008 and reached 35.41% in the period 2009-2013. This development is also reflected in the percentage of majority-approved shareholder resolutions. Karpoff, Malatesta, and Walkling (1996) document that only 22 of 866 shareholder resolutions were approved by the general assembly between 1986 and 1990, which translates to an approval rate of 2.5%. For later samples, 2005-2008 and 2009-2013, ISS records approval rates of 20.32% and 22.17%, respectively.

The increased relevance of shareholder proposals is also captured by the higher number of filed resolutions in recent years. For example, while Gillan and Starks (2000) report 2,042 proposals in the eight-year period between 1987 and 1994, the ISS-database files 3,605 resolutions ten years later over the same time span (1997-2004) and even 5,046 shareholder resolutions from 2005 to 2013 (withdrawals excluded). The improved board response and the higher approval rates are likely the two major causal factors for this development. In recent years, investors have stronger incentives to file proposals because they expect better reception by their fellow shareholders and, consequently, higher implementation probabilities by boards. Both, the rise in the number of shareholder proposals and the average votes received in their favor, can to a large extent be attributed to a rise in shareholder activism in the US (see Gillan and Starks, 2000; Thomas and Cotter, 2007).

Finally, several authors study the reaction of stock prices upon the inclusion of shareholder proposals in the meeting agenda (Strickland, Wiles, and Zenner, 1996; Renneboog and Szilagyi, 2011) and on the actual voting date (Karpoff, Malatesta, and Walkling, 1996; Cuñat, Mireia, and Guadalupe, 2012). Interestingly, the two

[4] A still open issue concerns the rights of the board to invalidate legally binding shareholder proposals that undermine the boards' authority (see Gordon, 1997; Hamermesh, 1998; McDonnell, 2005, for in-depth discussions of the law and legal practice).

[5] See `http://www.issgovernance.com`.

studies based on samples from the 1980's and 1990's (Karpoff, Malatesta, and Walkling, 1996; Strickland, Wiles, and Zenner, 1996) do not measure significant abnormal shareholder returns. On the contrary, Renneboog and Szilagyi (2011) detect positive stock returns for a sample of 2,436 proxy mailings in the period 1996-2005. By using a regression-discontinuity design (RDD), also Cuñat, Mireia, and Guadalupe (2012) find evidence of positive stock-price reactions upon successful shareholder votes on governance-related proposals.

In summary, recent evidence suggests that shareholder proposals represent an economically meaningful governance mechanism. In this paper, we add to the extant literature by studying whether shareholder proposals have a measurable impact on the market value of voting rights in the run-up to annual meetings - a time window that has so far been neglected in empirical research.

2.2 Research Hypotheses

To examine the empirical importance of shareholder proposals from the perspective of voting-right values, we develop several testable hypotheses that rely both on theoretical arguments and empirical results from previous studies. In general, we expect shareholder proposals to have a positive effect on the market value of voting rights whenever large (groups of) shareholders have sufficient (private or shared) incentives to influence the proposals outcome and, for this purpose, take action by starting a voting contest and acquiring additional voting shares. In the following, we elaborate on the importance of a variety of shareholder proposals.

The Average Shareholder Proposal

With a fraction of favorable votes of 30.26% and an average success rate of 17.56% (cf. Table 2), shareholder proposals are seldom successful and face worse prospects than management-sponsored resolutions (see, e.g., Thomas and Cotter, 2007; Maug and Rydqvist, 2009). Moreover, their outcomes are usually non-binding for the board of directors or management. For these reasons, we do not expect the average proposal to have a significant impact on voting-right values.

Hypothesis 1. The average shareholder proposal does not affect voting-right values.

Close Votes

If a shareholder proposal is expected to obtain a clear majority either in favor or against it, it is unlikely that (a coalition of) shareholders will invest resources in an attempt to influence the voting outcome. If a proposal faces a high share of support because it is in line with shareholders' preferences, there is no need to acquire additional voting rights to reach the desired outcome. Similarly, if a low level of support is expected, the costs of acquiring sufficient voting rights to influence the voting outcome are likely too high and, based on a simple cost-benefit analysis, no resources will be invested in this endeavor. On the contrary, if no clear outcome is expected, blockholders have stronger incentives to acquire additional voting rights in an attempt to influence the ballot and convince the board of directors to implement (or not to implement) a given proposal (see, e.g., Ertimur, Ferri, and Stubben, 2010; Cuñat, Mireia, and Guadalupe, 2012). It is precisely in cases of close votes that the probability of a control contest is high and the desire of some (groups of) blockholders to acquire additional votes allows minority shareholders to sell their shares at a premium (see Rydqvist, 1996; Zingales, 1994, 1995). Thus, close votes represent a necessary condition (although not a sufficient one) for shareholder proposals to increase voting-right values. This leads to the following testable hypothesis.

Hypothesis 2. Uncontested shareholder proposals do not affect voting-right values.

Governance-Related Shareholder Proposal

In order for blockholders to actively influence the outcome of a shareholder proposal, the costs of their involvement

need to be outweighed by the expected benefits of a prospective implementation of a given resolution. These benefits can either be private or shared among the other shareholders, for example when a proposal aims increasing a firm's fundamental value. Given these general considerations, we hypothesize that governance-related proposals are most likely to provide incentives for large shareholders to engage in a control contest and thereby raise the value of voting rights. In fact, for the majority of governance-related proposals, there are well-researched channels through which the fundamental value of a firm increases.(see, e.g., Black, 1998; Thomas and Cotter, 2007).

Non-governance proposals typically target limitations on a company's economic activity, such as the abandonment of businesses in countries with controversial working conditions or the active reduction of pollution. As such proposals do not generally aim at increasing shareholder value (see, e.g., Romano, 2001; Thomas and Cotter, 2007) but are instead more often motivated by a sponsor's political agenda (Romano, 1993; Cai and Walkling, 2011), we expect no relationship between voting-right values and votes on non-governance proposals - even if voting outcomes are uncertain.

Hypothesis 3a. Contested governance-related shareholder proposals increase voting-right values.

Hypothesis 3b. Contested non-governance-related shareholder proposals are unrelated to voting-right values.

Proposals on Antitakeover Amendments

As argued by Jensen (1986) (and others), antitakeover measures serve as an entrenchment device for incumbent managers. They reduce the probability of future control contests, making it less likely for the current shareholders to sell their shares at a premium (see, e.g., Gompers, Ishii, and Metrick, 2010). In fact, previous studies (see, e.g., Jarrell and Poulsen, 1987; Malatesta and Walkling, 1988; Karpoff and Malatesta, 1989) show that the introduction of takeover defenses in general, and poison pills in particular, is detrimental to shareholders' wealth. Similarly, Cuñat, Mireia, and Guadalupe (2012) show in a regression discontinuity design that the unexpected success of shareholder proposals that target the redemption of antitakeover defenses triggers positive and significant stock returns.

Based on these arguments, we expect proposals on antitakeover amendments, which usually target the redemption of poison pills or aim at reversing their detrimental effects, to provide sufficient incentives for shareholders to actively support these resolutions and thereby increase voting values. In addition, it is worth mentioning that poison-pill resolutions can be filed as binding by-law amendments (see, e.g., Black, 1998; McDonnell, 2005), which further amplifies their importance and, consequently, the magnitude of the effect we expect on voting values.

Hypothesis 4a. Contested proposals on antitakeover amendments have the strongest impact on the market value of voting rights.

Proposals on the Structure of the Board of Directors

Governance proposals on the structure of the board of directors typically request board declassification or a higher degree of board independence. Staggered boards serve as takeover defense and - similar to poison pills - entrench the incumbent managers and are generally detrimental to shareholder wealth (see, e.g., Faleye, 2007). Their declassification, vice versa, should strengthen the disciplining threat of the market for corporate control and increase the likelihood of future takeover contests. Similarly, board independence strengthens monitoring and is thus beneficial to shareholders. In line with this reasoning, empirical studies report positive wealth effects upon the appointment of independent outside directors (see, e.g., Rosenstein and Wyatt, 1990), the approval of board-structure proposals (Cuñat, Mireia, and Guadalupe, 2012), and the abandonment of the CEO-Chairman duality (Dahya, Lonie, and Power, 1996). The fact that directors are not completely opposed to changes of the board structure can be explained by their interest in preserving reputation and, thereby, increasing the chances of being re-elected (Fama and Jensen, 1983; Ertimur, Ferri, and Stubben, 2010). In conclusion, we expect that large shareholders have sufficient incentives to actively support proposals on the structure of corporate boards

and this should result in higher voting-right values.

Hypothesis 4b. Contested board-structure proposals lead to higher voting-right values.

Proposals on Management Compensation

Proposals on executive compensation, such as the introduction of advisory say-on-pay votes or the alteration of bonus packages, have been found to effectively reduce the level of managerial remuneration (see, e.g., Thomas and Martin, 1999; Cai and Walkling, 2011). While the sponsors of compensation-related shareholder proposals aim at reducing the managers' ability to extract rents, Black (1998) and Romano (2001) argue that it is questionable whether these measures effectively increase compensation efficiency and achieve a reduction of agency costs. Therefore, we expect that compensation proposals can foster control contests due to their documented impact on compensation practices. However, due to their weaker relation to shareholder value, we expect compensation proposals to have a smaller impact on voting values than either antitakeover or board-structure proposals.

Hypothesis 4c. Contested compensation-related proposals increase voting-right values, but their effect is smaller than that of either antitakeover or board-structure proposals.

Proposals on Shareholder Rights

Proposals that target shareholder rights typically request the adoption of cumulative voting in the election of board directors, proxy access, or the removal of supermajority requirements. As argued by Bhagat and Brickley (1984), proposals that successfully increase shareholder rights can translate into higher firm values if they reduce agency costs. For this reason, we expect proposals on shareholder rights to increase voting-right values. However, we also argue that the monitoring of managers by shareholders themselves is less effective than by either the board or the market for corporate control. Therefore, we expect proposals on shareholder rights to have a smaller effect on voting values than other governance-related proposals.

Hypothesis 4d. Contested proposals on shareholder rights increase voting-right values, but their effect is smaller than that of either antitakeover or board-structure proposals.

Powerful Activist Sponsors

If financially-endowed investors, such as active hedge funds or large pension funds, file a proposal, they will clearly vote in favor of it and, most likely, seek additional voting power to improve the likelihood of success. Such powerful investors should be able to attract followers in anticipation of the abnormal returns triggered by the prospects of value-enhancing reforms (see, e.g., Brav, Jiang, Partnoy, and Thomas, 2008) and, thus, further increase voting values.

Hypothesis 5. Contested proposals filed by powerful sponsors lead to higher voting-right values.

3 Methodology

3.1 Measuring Voting-Right Values

Financial economists have developed and used four approaches to empirically measure the value of corporate voting rights. The most common and straightforward methodology is the dual-class-shares approach. It relies on the existence of a dual-class shareholder structure in which one and the same company has issued at least two types of common stocks with equal cash-flow rights (once adjusted for deviating par values) but different voting power. All else equal, the difference between the market prices of these two classes of shares can be interpreted as the value attached to voting rights (see, e.g., Zingales, 1994; Rydqvist, 1996; Nenova, 2003).

The second approach computes the difference of the price paid in privately-negotiated block transactions and the market price paid for the same (but lower number of) shares on exchanges just after the block trade. The observed premiums that the block-buying investors are willing to pay are attributed to the value of controlling rights they obtain through the large acquisition of shares (see, e.g., Barclay and Holderness, 1989; Dyck and Zingales, 2004; Albuquerque and Schroth, 2010).

The third approach captures the value of voting rights by measuring abnormal lending fees paid for borrowed stocks around control-related events (Christoffersen, Geczy, Reed, and Musto, 2007). Since the lender of the stock in a lending agreement loses the voting right to the borrower, a high voting-right value should be reflected in an above-average lending fee.

Finally, a fourth approach extracts voting-right values from prices of single-stock options (see Kind and Poltera, 2013; Kalay, Karakas, and Pant, 2014). It exploits the fact that voting-right values can be considered as non-cash dividends. Since positive voting-right values decrease expected future stock prices (similarly to regular dividends) and therefore affect option prices, they can be backed out from them along with implied volatilities.

In this paper, we follow Kalay, Karakas, and Pant (2014) and Kind and Poltera (2013) and obtain estimates of corporate voting values from market prices of single-stock options. Using options for the extraction of voting-right values has several advantages over the other methods. First, while only few companies have issued multiple classes of shares and block trades occur rarely and erratically, options are written on a large set of companies. Second, the selection bias in the option sample is less serious than in the samples of dual-class shares and block trades (see, e.g., Kind and Poltera, 2013; Kalay, Karakas, and Pant, 2014). As dual-class shares serve as effective entrenchment device (see, e.g., Gompers, Ishii, and Metrick, 2010), their presence signals the existence of important private benefits (see, e.g., Coates, 2001) as well as a concentrated ownership structure (DeAngelo and DeAngelo, 1985). Thus, dual-class companies have likely above-average private benefits that are, however, hardly accessible by minority investors. Similarly, block transactions more likely involve shares of companies with large private benefits (Kalay, Karakas, and Pant, 2014). Third, and most importantly, both the dual-class and the block-trade approach measure the value of corporate control over an infinite maturity. In contrast, the option-based valuation extracts voting values over a finite time horizon - the options' maturities. As a consequence, it enables the isolation of voting-right values for specific corporate control events.

To benefit from the computational speed of the European-transform method of Kalay, Karakas, and Pant (2014) and the accuracy of the optimization method by Kind and Poltera (2013), we employ a two-stage procedure. First, we obtain proxies of voting-right values by following the methodology of Kalay, Karakas, and Pant (2014). Second, we use these values as a starting point for the computationally more demanding but bias-free optimization method of Kind and Poltera (2013). In doing so, we accounts for the theoretically correct co-dependence of American option prices, voting-right values, implied volatilities, and optimal exercise behavior.

The methodology to extract voting values is based on the analogy of control rights and regular dividends. If control rights are valuable to investors, then their influence on the stock price should be equivalent to that of cash dividends. Consequently, control values that accrue to investors should reduce the expected value of the stock:

$$E_t^Q \left[S(t+\Delta t)\right] = S(t) \cdot \exp\{r \cdot \Delta t\} - PV(D_C) - v, \tag{1}$$

where $S(t)$ denotes the stock price at time t, r is the risk-free interest rate, and Δt the time step over which expectations are built. $PV(D_C)$ stands for the present value of expected cash dividends paid in the period from t $t + \Delta t$ and v indicates the present value of expected voting-right values in the same time window. If voting-right values affect the expected future stock price, $S(t + \Delta t)$, then they must also be reflected in the market price of call and put options written on that stock. Accordingly, an option price P can be described as a function of three

sets of variables:

$$P = f\left(\Theta, \Sigma, v\right), \tag{2}$$

where Θ refers to the set of all pricing-relevant parameters known at the time the option is traded, i.e., the option type, the price of the underlying stock, the option's maturity, the strike, the risk-free interest rate, and known dividend payments. Σ denotes the set of all parameters governing the future volatility of the underlying stock returns and v captures all voting values that affect the expected value of the stock until the option's maturity. Both, Σ and v refer to unknown parameters that have to be extracted from option prices via a suitable option pricing model. In detail, the voting yields, v^*, are obtained by simultaneously solving for the volatility and voting parameters when minimizing the squared distance of model-generated prices, $\hat{P}$, from observed option prices, P, for a given number of options, N:

$$v^* = \underset{\Sigma, v}{\arg\min} \sum_{i=1}^{N} (\hat{P}_i(\Theta, \Sigma, v) - P_i)^2. \tag{3}$$

Like cash dividends, voting values can be conveniently modeled in option-pricing algorithms in two ways, either as continuous yields or discrete cash payments. Both procedures are arguably well suited to capture the voting values accruing to shareholders.[6] It is worth noting that share-price drops (including those due to voting dividends) are more accurately captured by option prices than stock prices. Prices of call and put options are affected by expectations of future stock-price drops while stock-price changes in correspondence of a meeting are noisy realizations of the same quantity.

3.2 The Mechanics of Shareholder Voting

General meetings are crucial events in the governance of modern corporations because they allow shareholders to express their will and actively influence corporate decisions by exercising their voting rights. The spectrum of agenda items during general meetings is broad and includes votes on director elections, resolutions on the usage of retained earnings, changes in the company by-laws, management compensation, the appointment of auditors, or the discharge of board directors. The timing of shareholder voting around annual meetings is crucial and deserves special attention. To receive an invitation to a general meeting and, most importantly, the proxy material, investors need to be registered in a company's shareholder book on the *record date*, sometimes also termed *proxy date* (see, e.g., Kahan and Rock, 2008). For example, under Delaware General Corporate Law (Title 8, §213, lit. a, DGCL), the board of directors has to fix a record date that lies between 10 and 60 days in advance of every vote - including those held at general meetings - after which the shareholder book is closed and thus unavailable for registering new shareholders. In our sample, companies close their shareholder book for 43 calendar days before a meeting on average and re-open it just afterward. To be entitled to exercise their votes, investors therefore need to own the shares in any case before the record date. According to the U.S. Security Exchange Commission (SEC)[7], due to the time required to technically process and settle a stock transaction, an investor wishing to vote at a meeting must purchase the shares at least three days prior to the official record date. The last day when the purchase of shares enables a buyer to register as voter in the shareholder book for the upcoming meeting is called *cum-voting date* and is followed by the effective ex-voting date. Figure 1 depicts a timeline with the mentioned dates.

[INSERT FIGURE 1 ABOUT HERE]

[6] A detailed description of the numerical option pricing algorithm used in the empirical part of this paper is presented in Appendix A.

[7] See `http://www.sec.gov`.

3.3 Empirical Research Design

Based on the legal and technical aspects related to the timing of corporate votes, it is reasonable to expect that voting rights attached to stocks are more valuable before the ex-voting date of an important meeting than afterward. To capture this difference in voting values, we adopt two alternative procedures.

The first procedure measures voting values as continuous yields and considers stock options that expire before the annual meeting and that are traded in two economically relevant time windows: (i) a *treatment window* and (ii) a *control window*. The former covers twenty trading days before the ex-voting date. In this period the shareholder book is still open and investors can trade the voting rights attached to the shares. We expect the voting yields extracted from those options to be positive whenever shareholders attribute a positive value to the right to participate to (and vote at) the upcoming meeting. The latter window considers options traded between the ex-voting date and the meeting date, i.e., during a period when the shareholder book is closed and investors cannot trade voting rights for the forthcoming meeting. As the probability of other control events just before a general meeting is very small, we expect the voting yields extracted from options traded in the *control window* to be close to zero.

Figure 2 illustrates exemplarily which options are used for the calculation of voting-right values and how they are assigned to the treatment and control windows. Each option is represented by a horizontal line. The starting point of the line indicates the date when the option price is observed; the end of the line refers to the option's contractual maturity. Options with dashed lines are excluded because they are either traded outside the treatment and control windows or they mature after the general meeting. Thick solid lines indicate options considered in the treatment window, while thin solid lines denote options included in the control window.

[INSERT FIGURE 2 ABOUT HERE]

For each day, a voting value is computed if at least four suitable option quotes are available. The voting yield of one annual meeting, $\overline{vy}$, equals the arithmetic average of all daily voting yields observed in the treatment window of the respective meeting:

$$\overline{vy} = \frac{1}{M} \sum_{j=1}^{M} vy_j, \tag{4}$$

where vy_j describes the voting yield observed on day j and M the number of yield observations within the 20-day treatment window.

The second procedure considers just one set of options traded in a twenty-day time window before the ex-voting date of each meeting (equivalent to the treatment window in the first procedure) which mature after the cum-voting date but prior to the annual meeting (thick solid lines in Figure 2). As we expect the stock price to be worth more before the ex-voting date (when voting rights can still be traded) than just afterward (when the shareholder book is closed), we solve the pricing problem in Equation 3 by allowing for a discrete voting dividend on the ex-voting date (the day following the cum-voting date). The expected stock-price drop on the ex-voting date will, all else equal, lower the price of call options and increase the value of put options. Further, by considering the American-style nature of single-stock options, the expected voting value will, all else equal, increase (decrease) the probability of exercising a call (put) option prematurely. As in the voting-yield procedure, the discrete voting value per meeting, $\overline{v}$, is equal to the arithmetic average of all M daily voting-dividend observations, v_j, in the treatment window:

$$\overline{v} = \frac{1}{M} \sum_{j=1}^{M} v_j. \tag{5}$$

To convert this discretely measured absolute voting value, $\overline{v}$, into a voting yield free from scaling effects related to the share price, $\overline{v}_{\%}$, we divide it by the stock price on Day j. Second, the resulting discrete daily yield is transformed into a continuous rate and annualized by multiplying it with the ratio of the number of calendar days per year and the average option maturity per optimization step, $\overline{\tau}_m$:

$$\overline{v}_{\%} = \frac{1}{M} \sum_{j=1}^{M} \left(ln \left[1 + \frac{v_j}{S_j} \right] \cdot \frac{365}{\overline{\tau}_m} \right). \tag{6}$$

4 Data and Sample

4.1 Shareholder Meetings and Option Data

The empirical study of this paper is based on S&P-1500 companies between January 2002 and December 2013 for which liquid exchange-traded stock option prices around annual meetings are available. The sample is free of survivorship biases as it reflects the index composition at each point in time. Option data is obtained from the Ivy DB US database of OptionMetrics and includes historical end-of-day quotes of single-stock equity options, corresponding share prices, as well as detailed information on option characteristics, such as strikes and maturities.

To ensure the reliability of the analysis, we follow seminal papers in the field of empirical option pricing (see, for example, Bakshi, Cao, and Chen, 1997; Dumas, Fleming, and Whaley, 1998; Peña, Rubio, and Serna, 1999; Zhang and Xiang, 2008) and consider throughout the study only option contracts that meet the following requirements. First, to reduce pricing errors originating from stale quotes, we require the trading volume of option contracts to be positive. Second, we do not consider options outside the moneyness interval [0.95 1.05], where moneyness, m, is defined as the ratio of the stock price and the present value of the strike ($m = S/PV[\text{Strike}]$). This reduces possible pricing issues deriving from volatility-smile and smirk effects and price discreteness due to the minimum tick size.

After applying the above option filters and the empirical research procedure outlined in Section 3.3, the final sample covers 5,167 annual shareholder meetings in 1,389 firms. Table 1 provides an overview of the final sample. Both the number of covered annual meetings and the average number of option contracts used to compute voting values increase significantly over the sample period. The reason for this development can be attributed to the growth in the market of exchange-traded options. The partial collapse in trading activity in derivative markets over the course of the financial crisis is also visible in the dataset: The meeting coverage as well as the number of valid option contracts drop substantially between 2008 and 2009. Finally, the number of option contracts in the treatment window is larger than in the control window. This difference is owed to the fewer option contracts in the control window that meet the restrictions on the options' lifetime (see Figure 2).

[INSERT TABLE 1 ABOUT HERE]

4.2 Data on Shareholder Proposals

We obtain data on shareholder-sponsored resolutions filed in S&P-1500 companies for the sample period 2002-2013 from the ISS-Governance database. For all shareholder-sponsored resolutions, the data include meeting dates, record dates, voting outcomes, as well as information on the proposals' content and type of sponsor. The final dataset comprises 3,083 shareholder proposals.

The information contained in the database allows us to classify the shareholder proposals with respect to their content and sponsoring shareholder. The categorization in this paper broadly follows Thomas and Cotter (2007) and Cuñat, Mireia, and Guadalupe (2012). Each proposal is either classified as governance or non-governance proposal and further grouped into one of the following eight subcategories:

- Governance Proposals

  (i) Proposals on *Antitakeover Amendments* aim at removing by-law provisions that deter hostile takeovers, e.g., the redemption of poison pills.

  (ii) *Management Compensation* proposals target the compensation policy of executive managers, e.g., the introduction of advisory votes on CEO compensation during general meetings or the reformation of bonus packages.

  (iii) Proposals on *Shareholder Rights* aim at improving the voting power of shareholders, e.g., through the introduction of a cumulative voting procedure for the election of directors, the reduction of supermajority requirements, or provisions that enable shareholders to add board candidates to the proxy material (often termed proxy access).

  (iv) *Board Structure* resolutions have the goal of improving the composition of corporate boards, e.g., votes on the declassification of the board or the appointment of an independent chairman.

- Non-Governance Proposals

  (v) *Transparency* resolutions intend to increase the transparency of manager and director dealings, mainly regarding the disclosure of political donations and lobbying behavior.

  (vi) *Environment* proposals aim at introducing sustainable practices, such as emission-reduction goals, as well as increased transparency through environmental reporting.

  (vii) Proposals on issues of *Social Responsibility* address human-rights and labor standards (e.g., MacBride Principles or ILO standards), social and gender equality, as well as other ethical and health issues (e.g., information disclosure on the effect of smoking in tobacco companies).

  (viii) *Miscellaneous* proposals include resolutions that do not fit in any of the other seven categories, e.g., votes on changing the state of incorporation or improving the reporting of pension funds.

Table 2, Panel A presents summary statistics of the shareholder proposals covered in our final sample. It includes 1,867 governance proposals and 1,216 non-governance proposals. The two most frequent types of shareholder proposals target changes in the board structure (715 votes) and management compensation (658 votes). Voting outcomes vary significantly across proposal types, e.g., resolutions that target governance issues have a significantly better reception than the ones aiming at social or environmental issues. Votes on antitakeover amendments reach a success rate as high as 53.77%, which indicates a strong will of shareholders to remove poison pills from the company's by-laws or similar provisions (as also indicated by Thomas and Cotter, 2007; Renneboog and Szilagyi, 2011; Cuñat, Mireia, and Guadalupe, 2012, among others). On the other end of the spectrum, resolutions classified as non-governance proposals (transparency, environment, and social responsibility) are characterized by very few favorable votes (21.09%, 14.75%, and 13.81%, respectively) and approval rates of 2% and less. Actually, only one out of the 386 proposals regarding environmental issues received the majority of the votes cast. Moreover, despite being one of the more popular proposal item on meeting agendas, shareholder-sponsored resolutions on compensation issues are the governance proposals with the lowest success rate. Only 11.70% are approved by the majority of shareholders with an average fraction of positive votes of 29.95%, which is substantially less than the reception of the other governance resolutions. The fact that very similar voting patterns are observed in related studies on shareholder proposals (see, e.g., Karpoff, Malatesta, and Walkling, 1996; Gillan and Starks,

2000; Thomas and Cotter, 2007) makes us confident that our sample selection criteria via the liquidity of option contracts is uncorrelated with the filing of shareholder proposals.

[INSERT TABLE 2 ABOUT HERE]

Not only the resolution content but also the type of proposal sponsor is a major factor in explaining the voting outcomes (see, e.g., Gordon and Pound, 1993; Karpoff, Malatesta, and Walkling, 1996; Gillan and Starks, 2000; Thomas and Cotter, 2007). Obviously, the target of a shareholder proposal is endogenous to the type of filing shareholders. Individual private investors or investor groups as well as labor unions (especially relating executive compensation) and public pension funds are far more likely to issue governance resolutions than SRI funds (Socially Responsible Investing) or religious groups (see, e.g., Karpoff, Malatesta, and Walkling, 1996; Gillan and Starks, 2000; Thomas and Cotter, 2007). We largely classify shareholders according to Thomas and Cotter (2007) into the following six groups: (i) Private Investors, including individuals known for their activist investment approach; e.g., Carl Icahn, Ray T. Chevedden, or Professor Lucian Bebchuk, as well as investment vehicles classified as hedge funds, (ii) Social Activists, mostly SRI Funds and private investors with disclosed social investment criteria, (iii) Religious Groups, i.e., all investors with an explicit religious background, (iv) Other Private Funds, comprising index funds and private pension funds, (v) Public Funds, predominantly in the form of public pension funds, and (vi) Labor Unions. Panel B of Table 2 summarizes the distribution and success rates across the different types of investor groups. It shows that private investors are the most frequent issuer of shareholder proposals with 934 sponsored resolutions. The second most active shareholders are labor unions, who have a natural incentive to tackle the governance of their firms (521 proposals). Private investors are not only the busiest filers of shareholder proposals but also the most successful ones with approval rates of 27.84%, followed by labor unions and public funds who obtain the majority of votes for their resolutions in 20.92% and 20.15% of votes, respectively. Religious groups and social activists are the least successful proposal sponsors with approval rates of merely 1.76% and 4.37%, respectively. In summary, these observations are in line with patterns observed in other studies (Thomas and Cotter, 2007; Renneboog and Szilagyi, 2011).

In a next step, we classify the shareholder proposals according to both criteria, their content and the type of sponsoring shareholder. Table 3 reports (i) the distribution of proposals among the two dimensions (Panel A), (ii) the fraction of favorable votes (Panel B), and (iii) the number of close-vote proposals (Panel C). Panel A shows that the proposal content correlates with the type of sponsor. Votes on the redemption of antitakeover provisions and resolutions on the improvement of shareholder rights, for example, are with a large majority sponsored by private investors, namely in 64 out of 73 and in 313 out of 421 instances, respectively. Labor unions as well as public institutions are primarily interested in compensation-related issues and board characteristics, while religious groups focus on social issues. Unsurprisingly, social activist are responsible for many of the social-responsibility and environmental resolutions.

Panel B further suggests that approval rates are primarily caused by the resolution content and not by the sponsor type. With a few exceptions, voting outcomes seem to fluctuate much stronger within the different resolution types than within the sponsor groups. However, public institutions and labor unions seem to be more successful with board-structure resolutions than other shareholders. Finally, religious groups have the worst track record in almost every category. Social activists at least receive some support when they file compensation and board-structure proposals.

[INSERT TABLE 3 ABOUT HERE]

Finally, Panel C shows the number of contested proposals for each content-sponsor pairing. A resolution is

defined as close-vote proposal if the fraction of favorable votes is within 10 percentage points from the applicable majority threshold. All remaining votes are categorized as uncontested. With the 10-p.p. interval, we address the trade-off between the level of uncertainty of voting outcomes and the number of available observations for each content-sponsor group. On the one hand, a more restrictive definition of contested votes improves the identification of a close battle between shareholder groups. On the other hand, the number of observations per group increase with a looser classification. For most proposals, the voting threshold is equal to the simple majority of 50% of votes cast. Although many shareholder proposals are precatory, achieving the simple majority has a significant impact on the implementation probability (see, e.g., Ertimur, Ferri, and Stubben, 2010; Cuñat, Mireia, and Guadalupe, 2012). The vote requirements for the binding by-law amendments that demand the removal of poison pills, however, are typically specified in a company's charter provision (see, e.g., Hamermesh, 1998). As a consequence, the criterion for the classification of an antitakeover amendment as close-vote proposal varies from vote to vote and is based on the threshold stated in the definitive proxy filing, Form DEF 14A, of the respective meeting. Conforming to the recommendation of Hamermesh (1998), the simple-majority threshold is only applied to resolutions for which no other requirement is mentioned.

5 Empirical Results

5.1 Descriptive Statistics of Voting Values at Annual Meetings

In this section, we present the empirical values of meeting-related voting rights in our sample of S&P-1500 companies between 2002 and 2013. As outlined in Table 4, Panel A, the average annualized voting yield, $\overline{vy}$, amounts to 0.28% and is statistically significant at the 1%-level. The discrete measurement procedure yields an average discrete voting dividend on the ex-voting date, $\overline{v}$, of 4.67 cents per share. Interestingly, these values are substantially lower than those obtained in other studies. For example, Kind and Poltera (2013) report an average voting yield of 1.82% for shareholder meetings in a sample of 188 companies in France, Germany, the Netherlands, and Switzerland in the period 2003-2010. This gap between US and European voting values is also found in empirical studies that employ the dual-class approach (see, e.g., Lease, McConnell, and Mikkelson, 1983; Zingales, 1995; Cox and Roden, 2002; Doidge, 2004) and is generally attributed to differences in the legal framework between the US and countries in continental Europe. It is generally accepted that US-laws offer a particularly high level of protection to minority shareholders, which effectively reduces blockholders' private benefits of control. In line with this reasoning, Doidge (2004) notes that the voting premium paid for shares of foreign firms with a cross-listing in the US (and thus subject to US-regulations of the Securities Exchange Commission) is 43% lower compared to companies without a US-listing.

[INSERT TABLE 4 ABOUT HERE]

As a placebo test, we also extract voting yields from options traded in a control window, when the shareholder book is closed. As expected, the respective voting values are very small (0.02% of the stock price on average) and indistinguishable from zero in statistical terms. Furthermore, our main sample excludes options written on shares that do not carry voting rights. However, these options offer another interesting, albeit small, control sample. Also in this case, the voting values extracted from such options (39 shareholder meetings) are not statistically different from zero with t-values of 0.84 for the voting-yield approach (during the treatment window) and 1.12 cents for the discrete-dividend approach (results not reported).

To further illustrate the effect of the ex-voting date on voting values, Figure 3 plots the average daily voting yields of the full meeting sample on a 21-day window surrounding the cum-voting date. From Day -10 to Day

-1 relative to the ex-voting date (treatment window), the daily average voting yields are always positive and significant at the 95%-confidence level - as indicated by the bootstrapped upper and lower confidence boundaries (dashed lines). Two days prior to the record date (RD) - just after the cum-voting date (CD), i.e., at the beginning of the control window - the average voting value drops to levels close to zero and ceases to be statistically significant.

[INSERT FIGURE 3 ABOUT HERE]

Table 4, Panel B shows the voting values for general meetings with shareholder proposals. The average annualized voting yield of this subsample amounts to 0.22%, which is similar to the one obtained for the full sample and not statistically different from it (t-test not reported). This result already supports our first hypothesis (cf. *Hypothesis 1* in Subsection 2.2), i.e., the existence of a shareholder proposal does not per se lead to higher voting-right values. Finally, the record-date effect is also observable for the shareholder-proposal subsample: Voting values measured during the control window with closed shareholder book are small (-0.10%) and not statistically different from zero.

5.2 Regression Setup and Controls

To test the hypotheses developed in Section 2.2 and dig deeper into the determinants of voting-right values, we run panel regressions in the following fashion:

$$v_{i,t} = \alpha_I + \beta_S + \gamma_t + X^C_{i,t} \cdot \delta_C + X^F_{i,t} \cdot \delta_F + \epsilon_{i,t}, \tag{7}$$

where $v_{i,t}$ are the voting-right values of Firm i in meeting month t, $X^C_{i,t}$ is a set of observable firm characteristics used as controls, and $X^F_{i,t}$ is the set of focus variables related to our hypotheses. Additionally, we include industry-fixed effects based on two-digit SIC-codes, α_I, as well as state-fixed effects based on the state of incorporation, β_S, that account for the unobservable time-invariant heterogeneity at the industry and state level. To capture the variation of voting values over time, we further include time-fixed effects on a monthly basis, γ_t. Finally, the matrix $X^C_{i,t}$ includes the following six control variables:

(i) *Size* refers to the natural logarithm of a firm's total asset value. For two reasons it is important to account for size effects. First, in large firms the costs of reaching control are higher and serve as a natural barrier to investors interested in getting access to a firm's private benefits (see, e.g., Zingales, 1995; Barclay and Holderness, 1989; Kind and Poltera, 2013). Second, large assets naturally increase the value of possible private benefits.

(ii) *Leverage* is defined as the debt-equity ratio.[8] On the one hand, a higher leverage ratio leads to a larger portion of controlled assets per unit of equity capital (see, for example, Harris and Raviv, 1988; Zingales, 1994). On the other hand, Jensen (1986) and other authors argue that debt serves as a governance mechanism that reduces financial slack and, thus, also private benefits.

(iii) *ROA* controls for a firms' operating performance as measured by the return on assets in the fiscal year preceding each annual meeting. On the one hand, poor past performance may lead to intensified monitoring by the owners (see, for example, Albuquerque and Schroth, 2010). In this case, large shareholders have an incentive to increase their influence on board and management. This increased demand for voting

[8] Defined as the ratio of the book value of total liabilities and the market value of equity.

rights should directly be reflected in higher voting premiums. On the other hand, the extraction of private benefits in underperforming companies is limited by managerial restrictions imposed by financial distress, which would result in smaller control premiums (see, e.g., Barclay and Holderness, 1989; da Silva and Subrahmanyam, 2007).

(iv) *Block Ownership* measures the sum of voting rights owned by blockholders.[9] Voting rights of marginal shareholders should be more valuable when several blockholders battle for majority and ownership of the pivotal vote. On the contrary, voting rights have no relevance if share ownership is fully dispersed and, due to the coordination costs among small shareholders and the costs of collective action (see, e.g., Nenova, 2003; Dyck and Zingales, 2004), no investor is interested in paying a premium for voting rights.

(v) *Majority Owner* is a dummy that indicates the existence of a dominant shareholder who holds the majority of voting rights.

(vi) *Dual Class* is a dummy variable that equals one if a firm has more than one class of shares outstanding and zero otherwise. Dual-class share structures allow owners to sell cash-flow rights while simultaneously retaining significant control stakes (see, e.g., Gompers, Ishii, and Metrick, 2010). As such, they represent powerful antitakeover measures and signal the existence of large private benefits of control (Coates, 2001). At the same time, these large private benefits accrue exclusively to one or few large controlling shareholders and are almost inaccessible to minority shareholders (DeAngelo and DeAngelo, 1985), which reduces the likelihood of a control contest and thus the market value of voting rights.

[INSERT TABLE 5 ABOUT HERE]

All data used for the computation of the control variables are obtained from Thomson-Reuters' Datastream and Compustat. The descriptive statistics reported in Table 5 show that the average company in our sample has a leverage ratio of 40.43% and an operating performance of 5.54% in terms of ROA. In addition, blockholders own on average 19.55% of the shares while in only 1.9% of firms a single investor owns more than 50% of the total voting rights. Finally, companies with dual-class shares represent a very small portion of the entire firm universe with 5.63%, which highlights the sample-representatives issues of the dual-class shares approach for measuring voting-right values.

5.3 Contested Votes and Governance Proposals

The results of the previous section indicate that the filing of a shareholder proposal does not per se lead to higher voting values during annual meetings (Hypothesis 1). In this section, we discuss the results related to the panel regressions outlined in Equation (7) which address the Hypotheses 2, 3a, and 3b. Table 6, Model (1) shows that there is a striking difference between close-vote proposals and uncontested ones.[10] The former are associated with (annualized) voting values at annual meeting that are, on average, 13.8 basis points higher (t-value: 1.73) than voting values at meetings without shareholder proposals. On the contrary, uncontested proposals are far from exerting any significant effect on voting values (t-value: -0.16). Thus, Model (1) provides evidence in favor of Hypothesis 2: Uncontested shareholder proposals do not affect voting-right values.

[9] Blockholders are defined as shareholders who disclose ownership of more than 5% of voting rights.

[10] In this study, we define votes on shareholder resolutions as either *uncontested* or *close*, depending on the fraction of favorable votes. In particular, resolutions with less than 10 percentage points either above or below the applicable majority threshold (usually 50%) are considered to be close votes. On the contrary, uncontested proposals are characterized by a larger distance from the applicable threshold.

[INSERT TABLE 6 ABOUT HERE]

To test Hypotheses 3a and 3b, we divide the proposals, based on their general content, into governance and non-governance resolutions. Model (2) and Model (5) show that none of these two categories significantly affect voting values if the votes are uncontested, i.e., the outcome is easily predictable. These findings reinforce Hypothesis 2. Model (3) and Model (6) are interesting because they both evidence that close-vote proposals on governance issues trigger higher voting values (t-values: 2.27 and 2.33), whereas those unrelated to the firms' governance do not (t-values: -1.07 and -1.37). Thus, the regression results support both Hypothesis 3a and Hypothesis 3b. Contested governance proposals seem to matter for (large) shareholders and provide them with sufficient incentives to attempt to influence the voting outcome. They seem to be willing to pay a premium for additional votes (see, e.g., Black, 1998; Thomas and Cotter, 2007). Regression Models (3) and (6) imply that the relationship of outcome closeness and voting-right observed in Models (1) and (4) is driven by governance proposals.

5.4 Resolution Content and Sponsor Type

After having detected a positive and significant relation between voting values and contested governance proposals, the goal of this section is to provide additional insights on this effect by splitting the governance proposals into the seven subgroups presented in Section 4.2 (antitakeover amendments, shareholder rights, board structure, transparency, environment, and social responsibility) and further considering the characteristics of the sponsoring shareholder. Similarly to Table 6, also Table 7 presents three regression models for each of the two dependent variables, $\overline{vy}$ and $\overline{v}_{\%}$. In Models (1) and (4), the dummies of the respective subgroups are equal to one regardless of the closeness of the voting results. On the contrary, the dummies employed in Models (2) and (5) indicate only uncontested votes of each subgroup and the dummies in Models (3) and (6) only contested votes.

[INSERT TABLE 7 ABOUT HERE]

Given the results obtained in the previous regressions, it is not surprising that also the detailed subgroup dummies do not display significant coefficients when they refer either to all proposals (Models (1) and (4)) or to uncontested ones (Models (2) and (5)). The only exception to this general statement concerns the positive and significant coefficient of antitakeover amendments in Model (4), which may reflect the relatively high fraction of contested votes among proposals that aim at redeeming antitakeover measures (38 out of 73 votes; see Panel C of Table 3). As noted by Brickley, Lease, and Smith (1988), in spite of the positive effects on shareholder value, the high number of contested antitakeover proposals may be explained by particular interests. For example, shareholders who have ongoing or potential business relations with the firm, mostly banks and insurance companies, tend to be in favor of takeover defenses to secure their relationship with the company. However, the positive coefficient of antitakeover amendments is confined to the regression with voting yields obtained from discrete dividend values ($\overline{v}_{\%}$, Model (4)) and does not carry over to the analysis of either voting yields ($\overline{vy}$, Model (1)) or uncontested votes (Models (2) and (5)).

When focusing on close-vote proposals (Models (3) and (6)), the regressions indicate that the positive effect of governance-related resolutions on voting values is driven by proposals on antitakeover amendments and the board structure. Votes on all other governance provisions - managerial compensation, shareholder rights, transparency, environment, or social responsibility - do not seem to be systematically related to voting values.

More precisely, contested votes on antitakeover amendments are found to increase voting yields by approximately 50 basis points on average, thereby exhibiting the largest impact on voting-right values among the types

of proposals considered. This result supports *Hypothesis 4a*, according to which antitakeover amendments are associated with the largest voting values because of their economic importance to shareholders. As argued in Subsection 2.2, takeover defenses not only diminish the possibility of takeover contests (Gompers, Ishii, and Metrick, 2010), they also impair the capital market's disciplining effect on incumbent managers and directors (Jensen, 1986). The immediate increase of shareholder value associated with the redemption of poison pills, as documented for example by Cuñat, Mireia, and Guadalupe (2012), provides strong incentives for shareholders to take action and actively improve the likelihood of success in close votes. We attribute the large influence of antitakeover proposals on voting values to their value-enhancing effect and their binding nature when filed as by-law amendments (see, e.g., Black, 1998; McDonnell, 2005).

The second type of proposals for which we observe a positive and significant increase in voting values (approximately 20 basis points, on average) are close-vote resolutions on the structure of a firm's board. Most of these proposals either try to (i) increase the board's independence from executive managers by separating the positions of CEO and chairman of the board or (ii) remove staggered director re-election plans. As argued in *Hypothesis 4b*, both measures can be valuable to shareholders: An independent board is presumably better suited to effectively monitor executive managers (Rosenstein and Wyatt, 1990; Dahya, Lonie, and Power, 1996) and a declassified board is easier to remove and, thus, facilitates potential takeovers (Faleye, 2007).

Against the expectation formulated in *Hypothesis 4c*, voting-right values are found to be unaffected by the existence of compensation-related shareholder proposals at annual meetings. Such proposals not only receive a lower fraction of favorable votes compared to other governance issues (cf. Table 2), they also do not seem to provide sufficient incentives for shareholders to take action and attempt to influence the voting outcome. At first sight, this result contradicts the findings of Cai and Walkling (2011), according to which even advisory say-on-pay votes have a positive impact on shareholder value. However, the same authors note that the attempts to change managerial compensation by means of shareholder proposals are typically filed in large firms and not in those who actually overpay their CEOs or follow compensation policies with a poor pay-for-performance link. Usually, such proposals are not filed with the intent of improving firms' compensation standards but serve the agenda of the sponsor in terms of publicity. Finally, while compensation proposals can have a real effect on managerial compensation (Thomas and Martin, 1999), some authors actually question whether a higher performance sensitivity automatically translates into a reduction of agency costs and an increase in shareholder value (see, e.g., Black, 1998; Romano, 2001).

In contrast to *Hypothesis 4d*, voting values prior to a general meeting are not found to be influenced by contested votes on the improvement of minority shareholder rights. Given the costs of collective action and the free-rider problem among small shareholders, this finding indicates that shareholder rights in the form of proxy access, cumulative voting for the election of board directors, or the removal of supermajority requirements do not represent sufficiently strong governance devices to justify an active involvement (either in favor or against them) by a significant group of shareholders.

Finally, the regression results in Table 7 show that no type of non-governance resolution has a positive and significant effect on voting-right values. Thus, shareholders do not seem to consider resolutions like the transparency concerning the managers' and directors' lobbying behavior, environmental reporting, or the adoption of gender equality as particularly relevant to justify an active involvement in the run-up to their vote. Further, some non-governance proposals restrict the scope of a firm's business and actually destroy shareholder value. As such proposals receive only a small fraction of favorable votes, it is unlikely that we observe them in the group of contested votes.

[INSERT TABLE 8 ABOUT HERE]

Table 8 reports the results of further panel regressions in which the focus variables are six dummy variables, each referring to one of the six types of resolution sponsors described in Subsection 4.2: private investors, social activists, religious groups, other private funds, public funds, and labor unions. Overall, the regression results evidence that the type of sponsoring shareholder is basically unrelated to the voting yields in the run-up to shareholder proposals. This holds for all proposals (Models (1) and (4)), uncontested proposals (Models (2) and (5)), as well close-vote resolutions (Models (3) and (6)). The results stand in contrast with *Hypothesis 5* which predicts that resolutions filed by powerful sponsors, such as activist investors or pension funds, who can afford running a campaign in favor of their proposals and attract followers, should trigger higher voting-right values.

The only exception to this general conclusion is given by the positive and (weakly) significant coefficient of labor unions in Model (6). This result may either be due to the campaigning of labor unions, who fight for the proposal's success, or by shareholders who fight against resolutions they expect to be detrimental to shareholder value (see, e.g., Cai and Walkling, 2011). However, we do not want to stress this result as it is based on relatively low significance levels (t-value: 1.84) and, furthermore, also not statistically significant for continuous-voting-yield approach (Model (3)).

To get deeper insights into the determinants of voting-right values in relation with shareholder proposals, we run in Table 9 panel regressions with content-sponsor interactions. Motivated by the results obtained so far, we concentrate on close-vote governance proposals and specify two models for each dependent variable.[11] Models (1) and (3) include dummies for contested votes on the four governance-related topics, i.e., antitakeover amendments, compensation, shareholder rights, and board structure, as well as dummies for the sponsoring shareholder, i.e., private investors, social activists, religious groups, other private funds, public funds, and labor unions. In Models (2) and (4) we add interaction terms for nine content-sponsor pairs for which a sufficient number of contested votes is available (cf. Table 4.2).

[INSERT TABLE 9 ABOUT HERE]

In all four regression models, the coefficients of contested antitakeover amendments and board-structure proposals are positive and significant, which confirms previous findings and Hypotheses (4a) and (4b). Further, in line with previous regressions (cf. Tables 7 and 8), all other coefficients fail to reach statistical significance. Regarding the interaction terms, we observe in Model (4) a positive correlation between compensation-related proposals sponsored by labor unions and voting values. Thus, the previously-mentioned significant relationship between discrete voting values and contested proposals sponsored by labor unions (cf. Table 8, Model (6)) is particularly strong for the subgroup of resolutions that target managerial compensation. Interestingly, this finding conforms with the study of Cai and Walkling (2011) according to which share prices react negatively upon the filing of compensation-related proposals by labor unions. Cai and Walkling (2011) argue that this negative stock-price reaction is likely due to the fact that, for publicity reasons, labor unions strategically file proposals in large companies rather than in firms with poor compensation practices. As the authors also show, the positive reversal of stock prices upon the rejection of compensation proposals filed by labor unions provides shareholders with clear monetary incentives to fight against their approval. The results obtained in our analysis add to this line of reasoning by showing that the shareholders' incentives to hinder the approval of detrimental compensation rules proposed by labor unions likely lead to an active engagement by shareholder groups and, ultimately, higher market values of voting rights.

All other interaction coefficients of sponsors and content types are statistically insignificant. Combined with the insignificant sponsor dummies, the results of the empirical analysis suggest that the content of a proposal is

[11] We exclude dummies for non-governance proposals as well as proposals sponsored by religious groups and other private funds because of the small number of close-vote observations in these categories.

the major driver of voting values. Other than the (albeit very interesting) special case of compensation-related proposals filed by labor unions, voting values are unaffected by the type of sponsor. Only resolutions with economically-relevant content - in particular antitakeover measures and topics on the structure of the board of directors - seem to provide sufficient incentives for shareholders to actively engage in the market for voting rights, provided that the votes are contested.

6 Conclusion

This paper performs an empirical analysis on the market value of voting rights around shareholder meetings of S&P-1500 companies between 2002 and 2013. The average voting yield just prior to the ex-voting date (two days before the record date) of 5,167 general meetings amounts to 0.28% of the stock price. Between the ex-voting date and the annual meeting, a time span in which companies close their shareholder book and dispatch proxy materials, we observe that voting values drop to zero. This finding reflects the fact that the shares acquired during this period do not allow the new owner to participate and vote at the upcoming meeting.

For the 1,418 general meetings in our sample, we measure an average voting yield of 0.22% or, in absolute terms, 4.30 cents. The statistically insignificant difference between voting values of meetings with and without shareholder proposals shows that the inclusion of such resolutions is not per se related to higher voting-right values.

Panel regressions evidence that (only) contested shareholder proposals on economically relevant topics have an impact on the market value of voting rights. In particular, voting yields are significantly higher before meetings with close-vote governance proposals that target either the redemption of antitakeover measures or the structure of corporate boards. Conversely, resolutions that target managerial compensation practices, the improvement of shareholder rights, environmental issues, corporate transparency, social responsibility do not to lead to higher voting values. These results comply with the general prediction that (large) investors will campaign for or against shareholder proposals - and thereby lead to increases in the market value of voting rights - whenever their expected benefits outweigh their costs. Such situations are likely to materialize when the outcome of the resolution is expected to greatly influence shareholders' wealth (large expected benefits) and there is no clear majority in favor or against it (comparatively low costs of acquiring the pivotal vote and influencing the outcome). Specifically, the results of the empirical analysis comply with prior empirical studies that attach to antitakeover amendments and board-structure proposals the clearest prospects of increasing shareholder value.

A more detailed analysis that considers the sponsors of shareholder proposals reveals that voting values increase if filed by labor unions, particularly when they address companies' managerial compensation. This finding can be explained by the attitude of labor unions to file compensation resolutions strategically, for publicity reasons, in large firms - and not in firms with poor compensation policy - and thereby harm stockholders (see Cai and Walkling, 2011). Accordingly, it is conceivable that shareholders fight for the rejection of such proposals, engage against them, and lead to an increase in voting values.

Finally, the empirical results do not support the view that resolutions filed by other powerful investors, such as private funds or pension funds, lead to higher voting values.

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A Option-Pricing Algorithm

As valuation model, we use a modified version of the Binomial Black-Scholes-Model with Richardson extrapolation as proposed in Geske and Johnson (1984), which is based on the binomial pricing model by Cox, Ross, and Rubinstein (1979) [CRR]. Depending on either defining the voting values as yields or discrete values, the pricing algorithm has to be adjusted accordingly. In the case of a continuous voting yield, vy, the adjustment corresponds to the one for continuous dividend yields, i.e., by adding a voting parameter to the risk-neutral branching probabilities of the tree in the CRR-model, $p(u)$ and $p(d)$, that accounts for the reduction in the expected stock-price drift as shown in Equation (1):

$$\begin{aligned} p(u) &= \frac{exp\left\{(r - vy) \cdot \Delta t\right\} - d}{u - d} \\ p(d) &= 1 - p(u), \end{aligned} \tag{8}$$

where Δt is the length of one time step in the binomial tree, and u resp. d are the one-step stock returns in the up and down-movement respectively that define the geometry of the binomial tree.

In the second case, where voting values are assumed to accrue to investors as discrete values at a specific date, we follow the method of Schroder (1988) that adjusts the binomial pricing model correctly for discrete cash outflows such as dividends. The method adjusts the starting value of the stock-price tree by reducing the initial stock price with the present value of the sum of all cash outflows during the options' lifetime. Thereby, the binomial tree retains its computationally efficient recombination characteristics. By then adding back the present value of dividends or voting values that are not yet paid out to the share price in each node, the method creates a discrete price jump at the chronologically nearest node to the ex-dividend or ex-voting date in the tree. As a result, the modified tree is able to simulate the correct influence a discrete dividend or voting value has on the exercise behavior of stock-option investors.

By applying this binomial-tree modification for cash dividends and discrete voting values, the model implicitly assumes perfect forecasting. Since this study focuses on options with a maturity of maximally two months, this assumption seems reasonably justified. Within this time horizon, it is unlikely that an unexpected dividend is announced and, in addition, the stock goes ex-dividend as well. The same holds for the announcement and realization of a fixed and surprising voting event such as a special meeting.

B Control Variables and Voting Values

The first set of regression models is reported in Table 10 and examines the relationship between shareholder proposals and the control variables with voting values. The analysis of the variable Shareholder Proposal, which equals one for meetings that include votes on shareholder proposals and zero otherwise, adds further evidence to the univariate results of Subsection 5.1 that meetings with shareholder proposals are statistically not different from non-proposal meetings in terms of voting values. In summary, our results indicate that, on average, votes on shareholder proposals have per se no effect on the market value of voting rights.

[INSERT TABLE 10 ABOUT HERE]

The signs of the controls' coefficients are similar in all regressions, the significance levels, however, vary. Like the majority of empirical studies, we observe a negative relationship between voting-right values and firm size

(see, e.g., Zingales, 1995; Barclay and Holderness, 1989; Kind and Poltera, 2013). Models (2) and (3) as well as Model (4) at particularly high confidence levels show that values of voting rights are smaller in large firms. Supposedly, the monetary costs of trying to affect the voting outcome in meetings of larger company, for example by acquiring voting rights, are simply higher relative to votes in small firms.

The results are less clear with respect to leverage - as there seems to be no clear statistical relationship between leverage and voting values. No model provides evidence if the effect on voting values of the larger pool of assets under control per share in highly indebted firms (as argued by Harris and Raviv, 1988; Zingales, 1994) empirically exceeds the converse impact of the limited access to private benefits in firms with a high leverage (Jensen, 1986) or vice versa.

Furthermore, the discretely measured voting yields provide evidence that voting rights are worth more in meetings of poor-performing companies (Models (3) and (4)). This finding is in line with observations of Barclay and Holderness (1989) and da Silva and Subrahmanyam (2007). Supposedly, it is more likely that shareholders demand economically important policy changes in a poorly performing company - even if the only objective is to increase performance volatility. And since the market value of control is arguably high for meetings where investors vote on items that impact shareholder value, the negative regressors for ROA might just reflect the interest of shareholders to increase the probability of turning around their underperforming company.

As expected, there is a robust and non-linear relationship between voting values and ownership concentration. In all four models where the respective regressors are included, the voting-right values increase with the amount of votes held by disclosed blockholders (Block Ownership) up to the point where a dominant shareholder exists (Majority Owner). For voting rights to have a high value, the existence of blockholders, who have the monetary capacity to influence a voting outcome, is typically required. The incentives for small investors to become active are much smaller since the potential portfolio benefits are quickly outweighed by expenses. The significant and in magnitude large coefficients of the majority-owner dummy indicates that the likelihood for a control fight in companies with a dominant shareholder is negligible. As a matter of fact, the average voting yield of general meetings of firms with majority shareholder amounts to -0.01% and is statistically close to zero.[12]

Finally, the regression results support the hypothesis that a company's choice to adopt a dual-class share structure is endogenously related to the value of control. The continuous voting yields of firms with more than one voting share are significantly smaller relative to single-class companies (Models (1) and (2)), even after accounting for the supposedly concentrated ownership structure. The presence of a share class with the sole motivation of retaining control signals that the large owners are interested in accessing private control benefits - potentially at the costs of minority shareholders. Further, the intrinsic decision power of an inferior voting share is arguably very small. The corresponding coefficients for the regressions based on discrete voting values are also negative, however, only at lower confidence levels (Models (3) and (4)).

[12] A t-test based on the null hypothesis that voting values of those meetings are equal to zero renders a test statistic of t = -0.06.

Figure 1: Voting Access at Shareholder Meetings

This figure shows a timeline with important dates related to shareholder voting at general meetings. Between the *record date* on Day 0 and the *meeting date*, which takes place τ days later, the shareholder book is closed. Due to the time required to process and settle share transactions, however, the last cum-voting date lies three trading days before the record date, thus on Day -3.

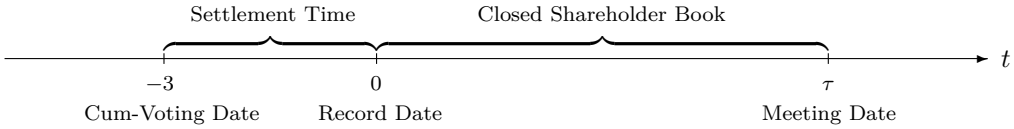

Figure 2: Selection of Option Contracts per Shareholder Meeting

This figure illustrates the valuation setting by showing the construction of the treatment window and the control window. Additionally, the figure shows – for each of the two windows – the lifetime of options used for the extraction of voting-right values. The treatment window starts 20 business days prior to the last cum-voting date and ends on the cum date on Day 0. The control window lasts from the ex-voting date to the meeting date; i.e., τ days after the cum-voting date. For the valuation of voting values during the treatment window, on each day the pricing algorithm considers option contracts that are traded on the specific trading day which mature after the cum date but before the shareholder meeting (indicated by thick solid lines). For the control window, only those options that are traded after the cum date and also expire before the shareholder meeting are used for the extraction of the daily voting values (denoted with thin solid lines). All other option contracts whose lifetime is drawn with dashed lines do not fulfill these criteria and, thus, are not included in the empirical valuation.

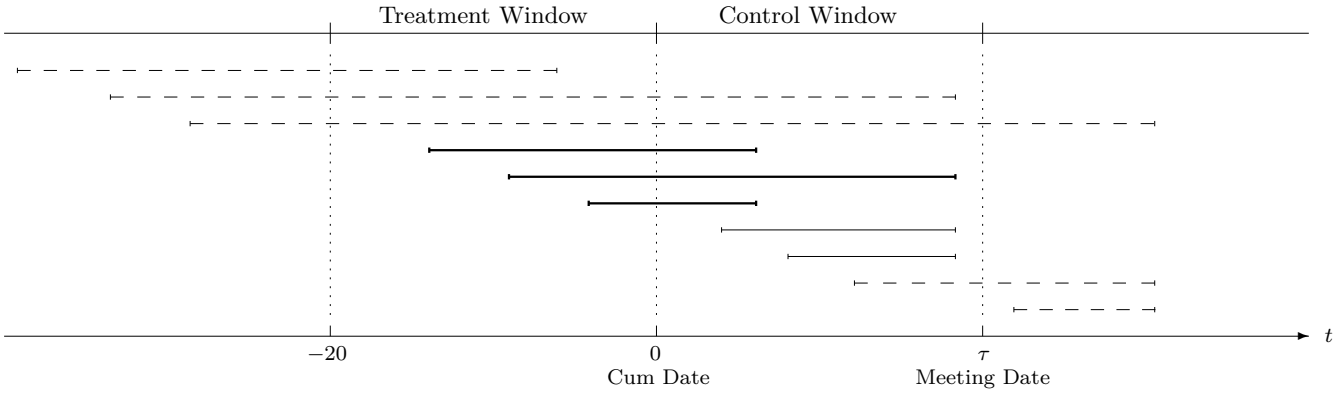

Figure 3: Daily Voting Yields Around the Closing of the Shareholder Book

This figure plots annualized average daily voting yields and bootstrapped 95%-confidence bounds for a 21-day period around the cum date for all general meetings of S&P-1500 companies between 2002 and 2013 that satisfy the liquidity requirements outlined in Section 4.1. The cum date (CD) corresponds to third day prior to the record date (RD) of the forthcoming shareholder meeting. Voting yields are winsorized at the 1%-level.

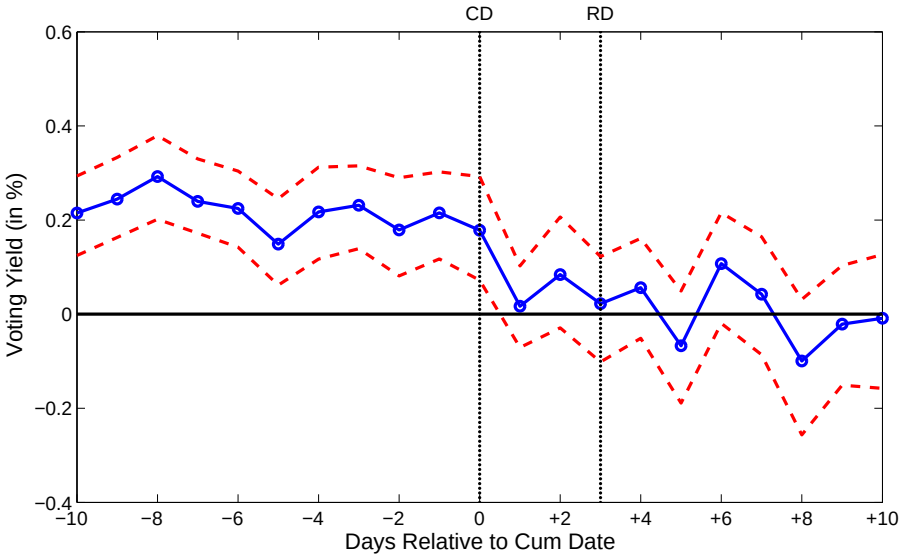

Table 1: Final Sample of Options and Annual Meetings

This table describes the final sample of this study's empirical analysis of voting values around shareholder meetings between 2002 and 2013. Column 2 summarizes the number of covered shareholder meetings per year and in total. Columns 3 and 4 show the total number of option quotes used in the optimization process within the treatment window and the control window, respectively. The last two columns outline the average number of option contracts that are employed per shareholder meeting for the measurement of voting values for the treatment and the control window.

Year	Shareholder Meetings	Option Quotes		Option Quotes per Meeting	
		Treatment Window	Control Window	Treatment Window	Control Window
2002	187	4,566	2,046	24.42	10.94
2003	249	6,407	3,306	25.73	13.28
2004	316	9,300	4,527	29.43	14.33
2005	355	10,807	4,960	30.44	13.97
2006	374	13,029	6,710	34.84	17.94
2007	407	13,961	7,251	34.30	17.82
2008	460	17,987	9,367	39.10	20.36
2009	394	12,530	8,073	31.80	20.49
2010	512	27,461	16,916	53.63	33.04
2011	601	39,325	27,507	65.43	45.77
2012	753	47,935	37,222	63.66	49.43
2013	559	45,179	37,258	80.82	66.65
Total	5,167	248,487	165,143	48.09	31.96

Table 2: Summary Statistics of Shareholder-Proposals Sample

This table summarizes characteristics of the shareholder proposals included in the final sample. Panel A provides a breakdown by resolution type. Panel B shows the success rates of shareholder proposals across resolution sponsors for the full sample and the subsamples of governance and non-governance resolutions.

Panel A: Shareholder Proposals by Resolution Type

	No. of Proposals	Majority Approved	Majority Rejected	Success Rate	Average Votes For	Average Votes Against
Governance Proposals	1,867	533	1,334	28.55%	39.82%	60.18%
Antitakeover Amendment	73	44	29	60.27%	53.77%	46.23%
Board Structure	715	258	457	36.08%	43.57%	56.43%
Management Compensation	658	77	581	11.70%	29.95%	70.05%
Shareholder Rights	421	154	267	36.58%	46.47%	53.53%
Non-Governance Proposals	1,216	22	1,194	1.81%	16.34%	83.66%
Transparency	286	4	282	1.40%	21.09%	78.91%
Environment	386	1	385	0.26%	14.75%	85.25%
Social Responsibility	415	9	406	2.17%	13.81%	86.19%
Miscellaneous	129	8	121	6.20%	18.72%	81.28%
All Proposals	3,083	555	2,528	18.00%	30.56%	69.44%

Panel B: Shareholder Proposals by Resolution Sponsor

	All Proposals			Governance Resolutions			Non-Governance Resolutions		
	No. of Proposals	Majority Approved	Success Rate	No. of Proposals	Majority Approved	Success Rate	No. of Proposals	Majority Approved	Success Rate
Private Investor	934	260	27.84%	771	259	33.59%	163	1	0.61%
Social Activist	435	19	4.37%	87	18	20.69%	348	1	0.29%
Religious Group	284	5	1.76%	50	4	8.00%	234	1	0.43%
Other Private Fund	68	6	8.82%	36	4	11.11%	32	2	6.25%
Public Fund	397	80	20.15%	216	73	33.80%	181	7	3.87%
Labor Union	521	109	20.92%	426	105	24.65%	95	4	4.21%
Not Classified	444	76	17.12%	281	70	24.91%	163	6	3.68%
All Proposals	3,083	555	18.00%	1867	533	28.55%	1,216	22	1.81%

Table 3: Shareholder Proposals by Resolution Content and Sponsor Type

This table provides statistics of the shareholder proposals in the final sample by categorizing the resolutions with respect to their content and sponsor. While Panel A lists the distribution of the total number of proposals per group, Panel B summarizes the average fraction of votes in favor of the resolutions for each pairing. Finally, Panel C shows the number of close-vote proposals for all content-sponsor combinations.

	Private Investor	Social Activist	Religious Group	Other Private Fund	Public Fund	Labor Union	Not Classified	Total
Panel A: Total Number of Proposals								
Antitakeover Amendment	64	-	-	-	4	4	1	73
Board Structure	214	44	12	14	107	205	119	715
Management Compensation	180	43	38	21	88	200	88	658
Shareholder Rights	313	-	-	1	17	17	73	421
Transparency	30	71	10	12	54	38	71	286
Environment	36	180	89	4	25	5	47	386
Social Responsibility	41	93	129	12	81	29	30	415
Miscellaneous	56	4	6	4	21	23	15	129
Total	934	435	284	68	397	521	444	3,083
Panel B: Average Fraction of Votes For Proposal								
Antitakeover Amendment	52.68%	-	-	-	61.53%	64.25%	51.00%	53.77%
Board Structure	40.06%	43.22%	20.79%	24.72%	52.45%	43.89%	45.99%	43.57%
Management Compensation	26.27%	31.36%	25.84%	33.60%	34.43%	32.88%	26.56%	29.95%
Shareholder Rights	47.30%	-	-	65.00%	48.58%	34.64%	44.92%	46.47%
Transparency	8.27%	22.24%	21.39%	9.26%	26.49%	20.78%	23.38%	21.09%
Environment	9.42%	13.23%	15.43%	22.40%	25.69%	14.80%	16.91%	14.75%
Social Responsibility	7.02%	13.26%	11.51%	19.73%	20.35%	13.23%	15.17%	13.81%
Miscellaneous	12.14%	8.25%	15.27%	39.18%	26.10%	22.64%	25.67%	18.72%
Total	35.19%	19.21%	15.08%	24.18%	35.12%	34.69%	32.33%	30.26%
Panel C: Number of Close-Vote Proposals								
Governance Proposals	243	25	12	12	60	151	70	573
Antitakeover Amendment	33	-	-	-	2	2	1	38
Board Structure	41	4	1	1	19	87	34	187
Management Compensation	51	21	11	11	33	58	7	192
Shareholder Rights	118	-	-	0	6	4	28	156
Non-Governance Proposals	3	14	2	2	25	6	10	62
Transparency	0	4	1	0	7	1	5	18
Environment	0	5	1	0	5	0	2	13
Social Responsibility	0	5	0	0	8	1	0	14
Miscellaneous	3	0	0	2	5	4	3	17
Total	246	39	14	14	85	157	80	635

Table 4: Empirical Voting Values Around General Meetings

This table provides descriptive statistics of voting values extracted from option prices written on stocks of US-firms around shareholder meetings in the time period 2002-2013. For both, the full sample of all meetings (Panel A) and the subsample of meetings with shareholder proposals (Panel B), it displays the results of voting yields measured during the treatment window (open shareholder book), the control window (closed shareholder book), as well as of the discrete voting-yield measurement on the ex-voting date. For each variable, the mean voting values, their t-statistics, and the three quartiles are presented. In addition, the last column indicates the number of shareholder meetings that are used as basis for our calculations. The two-tailed t-tests are based on the null hypothesis that mean voting values are equal to zero. The significance levels are as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Timing	Mean	t-Statistic	25% Perc.	Median	75% Perc.	Meetings
Panel A: All Meetings						
Voting Yield ($\overline{vy}$) - Treatment Window	0.28%***	5.47	-0.28%	0.18%	0.81%	5,167
Voting Yield ($\overline{vy}$) - Control Window	0.02%	0.35	-0.72%	-0.04%	0.72%	3,593
Discrete Voting Dividend ($\overline{v}$, in ¢)	4.67***	24.71	1.26	2.95	5.83	5,167
Panel B: Meetings with Shareholder Proposals						
Voting Yield ($\overline{vy}$) - Treatment Window	0.22%***	3.48	-0.25%	0.17%	0.72%	1,418
Voting Yield ($\overline{vy}$) - Control Window	-0.10%	-1.36	-0.72%	-0.17%	0.49%	1,206
Discrete Voting Dividend ($\overline{v}$, in ¢)	4.30***	13.19	1.29	2.84	5.20	1,418

Table 5: Descriptive Statistics of Regression Controls

This table provides descriptive statistics of the control variables employed in the regression analyses. For each variable, the mean, the standard deviation, the median, and the number of observations are reported. Majority Owner and Dual Class are dummy variables.

Variable	Mean	Std. Dev.	Median	Obs.
Size	22.04	1.71	21.92	5,167
Leverage	40.43%	0.25	34.94%	5,167
ROA	5.54%	0.33	5.14%	5,167
Block Ownership	19.55%	0.14	18.02%	5,167
Majority Owner	1.9%			5,167
Dual Class	5.63%			5,167

Table 6: Effect of Contested Votes and Governance Proposals

This table lists regression results of voting values measured in the treatment window of shareholder meetings. Continuous voting yields ($\overline{vy}$) are the dependent variable of the Models (1) to (3), the voting yields based on the discrete measurement procedure ($\overline{v}_{\%}$) are used for Models (4) to (6). The regressors are defined as dummy variables that equal one if at least one shareholder-proposal vote of the respective category was held during a meeting. The reference category of each dummy variable is the value of voting rights of meetings without an observation of the specific vote defined by the regressor. The t-statistics are based on robust standard errors and shown in parentheses. The significance levels of the t-statistics are as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Dependent Variable	Voting Yield ($\overline{vy}$)			Voting Yield ($\overline{v}_{\%}$)		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
Sample	Full Sample	Uncontested Votes	Close Votes	Full Sample	Uncontested Votes	Close Votes
Uncontested Proposal	-0.009			-0.004		
	(-0.16)			(-0.76)		
Close-Vote Proposal	0.138*			0.014*		
	(1.73)			(1.82)		
Non-Governance Proposal		0.078	-0.164		0.006	-0.018
		(1.24)	(-1.07)		(1.01)	(-1.37)
Governance Proposal		-0.040	0.144**		-0.004	0.014**
		(-0.68)	(2.27)		(-0.76)	(2.33)
Control Variables	Included	Included	Included	Included	Included	Included
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,167	5,167	5,167	5,167	5,167	5,167
R^2	0.08	0.08	0.08	0.40	0.40	0.40
Adjusted R^2	0.06	0.06	0.06	0.38	0.38	0.38

Table 7: Importance of Resolution Content

This table lists regression results of voting values measured in the treatment window of shareholder meetings. Continuous voting yields ($\overline{vy}$) are the dependent variable of the Models (1) to (3), the voting yields based on the discrete measurement procedure ($\overline{v}_{\%}$) are used for Models (4) to (6). Each of the regressors are defined as dummy variables. While in Models (1) and (4) the dummies equal one if at least one shareholder-proposal vote of the respective category was held during a meeting, Models (2) and (5) focus on votes with uncontested outcomes. The dummies employed in Models (3) and (6) only cover those votes in the group with close outcomes. The reference category of each dummy variable is the value of voting rights of meetings without an observation of the specific vote defined by the regressor. The t-statistics are based on robust standard errors and shown in parentheses. The significance levels of the t-statistics are as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Dependent Variable	Voting Yield ($\overline{vy}$)			Voting Yield ($\overline{v}_{\%}$)		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
	Full Sample	Non-Close Votes	Close Votes	Full Sample	Non-Close Votes	Close Votes
Antitakeover Amendment	0.122	-0.318	0.468*	0.315*	-0.260	0.653*
	(0.56)	(-0.75)	(1.79)	(1.72)	(-1.01)	(1.67)
Board Structure	-0.007	-0.083	0.222**	0.092	-0.015	0.205**
	(-0.12)	(-0.88)	(2.41)	(1.58)	(-0.19)	(2.29)
Compensation	0.037	-0.022	-0.034	0.077	-0.015	0.058
	(0.47)	(-0.27)	(-0.36)	(1.42)	(-0.24)	(0.70)
Shareholder Rights	0.045	-0.185	0.040	0.062	0.032	0.065
	(0.69)	(-1.30)	(0.45)	(0.95)	(0.29)	(0.85)
Transparency	0.027	0.083	-0.254	0.078	0.144	-0.150
	(0.37)	(0.79)	(-1.06)	(0.97)	(0.92)	(-0.81)
Environment	0.018	-0.042	0.010	0.006	-0.057	0.148
	(0.23)	(-0.42)	(0.29)	(0.09)	(-0.65)	(0.54)
Social Responsibility	0.008	0.014	-0.230	-0.003	0.045	-0.339
	(0.09)	(0.13)	(-0.54)	(-0.05)	(0.51)	(-0.83)
Control Variables	Included	Included	Included	Included	Included	Included
Time-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
State-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,167	5,167	5,167	5,167	5,167	5,167
R^2	0.08	0.08	0.08	0.42	0.42	0.42
Adjusted R^2	0.05	0.05	0.05	0.40	0.40	0.40

Table 8: Importance of Resolution Sponsor

This table lists regression results of voting values measured in the treatment window of shareholder meetings. Continuous voting yields ($\overline{vy}$) are the dependent variable of the Models (1) to (3), the voting yields based on the discrete measurement procedure ($\overline{v}_{\%}$) are used for Models (4) to (6). Each of the regressors are defined as dummy variables. While in Models (1) and (4) the dummies equal one if at least one shareholder-proposal vote of the respective category was held during a meeting, Models (2) and (5) focus on votes with uncontested outcomes. The dummies employed in Models (3) and (6) only cover those votes in the group with close outcomes. The reference category of each dummy variable is the value of voting rights of meetings without an observation of the specific vote defined by the regressor. The t-statistics are based on robust standard errors and shown in parentheses. The significance levels of the t-statistics are as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Dependent Variable	Voting Yield ($\overline{vy}$)			Voting Yield ($\overline{v}_{\%}$)		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
	Full Sample	Non-Close Votes	Close Votes	Full Sample	Non-Close Votes	Close Votes
Private Investor	0.112*	0.041	0.098	0.118*	0.040	0.111
	(1.66)	(0.42)	(1.10)	(1.86)	(0.47)	(1.48)
Social Activist	-0.047	-0.053	0.086	-0.037	-0.004	-0.093
	(-0.26)	(-0.16)	(0.43)	(-0.56)	(-0.04)	(-0.67)
Religious Group	-0.076	0.079	-0.150	0.066	0.056	-0.497*
	(-1.00)	(0.83)	(-0.91)	(0.82)	(0.64)	(-1.67)
Other Private Fund	0.078	-0.022	-0.319	-0.031	-0.014	0.020
	(0.87)	(-0.19)	(-1.36)	(-0.22)	(-0.05)	(0.15)
Public Fund	0.023	-0.069	0.097	0.010	0.115	0.167
	(0.26)	(-0.51)	(0.60)	(1.31)	(0.97)	(1.01)
Labor Union	-0.047	0.008	0.074	0.073	-0.011	0.161*
	(-0.74)	(0.08)	(0.80)	(1.15)	(-0.13)	(1.84)
Control Variables	Included	Included	Included	Included	Included	Included
Time-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
State-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,167	5,167	5,167	5,167	5,167	5,167
R^2	0.08	0.08	0.08	0.42	0.42	0.42
Adjusted R^2	0.05	0.05	0.05	0.40	0.40	0.40

Table 9: Resolution Content vs. Proposal Sponsor

This table lists regression results of voting values measured in the treatment window of shareholder meetings. Continuous voting yields ($\overline{vy}$) are the dependent variable of Models (1) and (2), the voting yields based on the discrete measurement procedure ($\overline{v}_{\%}$) are used for Models (3) and (4). The reference category of each dummy variable is the value of voting rights of meetings without an observation of the specific vote defined by the regressor. The t-statistics are based on robust standard errors and shown in parentheses. The significance levels of the t-statistics are as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Dependent Variable	Voting Yield ($\overline{vy}$)		Voting Yield ($\overline{v}_{\%}$)	
	Model (1)	Model (2)	Model (3)	Model (4)
	Close Votes	Close Votes	Close Votes	Close Votes
Antitakeover Amendment	0.637**	1.994*	0.723*	3.031**
	(2.05)	(1.75)	(1.65)	(2.10)
Board Structure	0.297**	0.263*	0.249*	0.318*
	(2.09)	(1.82)	(1.90)	(1.70)
Compensation	0.049	0.113	0.120	-0.113
	(0.39)	(0.48)	(1.08)	(-0.71)
Shareholder Right	0.105	0.174	0.119	0.096
	(0.72)	(1.16)	(1.01)	(0.80)
Private Investor	-0.096	-0.034	-0.100	-0.096
	(-0.59)	(-0.13)	(-0.73)	(-0.49)
Social Activist	-0.186	0.001	-0.119	-0.077
	(-0.99)	(0.00)	(-0.75)	(-0.26)
Public Fund	-0.009	0.008	0.080	0.009
	(-0.05)	(0.03)	(0.47)	(0.04)
Labor Union	-0.125	0.077	0.029	-0.020
	(-0.83)	(0.33)	(0.23)	(-0.08)
Antitakeover Amendment*		-1.648		-2.735
Private Investor		(-1.40)		(-1.51)
Board Structure*Private Investor		0.158		0.167
		(0.62)		(0.76)
Board Structure*Public Fund		0.199		-0.018
		(0.54)		(-0.05)
Board Structure*Labor Union		-0.279		-0.213
		(-1.00)		(-0.75)
Compensation*Private Investor		-0.063		0.150
		(-0.27)		(0.82)
Compensation*Social Activist		-0.333		0.082
		(-0.81)		(0.24)
Compensation*Public Fund		-0.263		0.105
		(-0.87)		(0.38)
Compensation*Labor Union		0.142		0.480*
		(1.50)		(1.85)
Shareholder Rights*Private Investor		-0.142		0.010
		(-0.51)		(0.05)
Observations	5,167	5,167	5,167	5,167
R^2	0.08	0.08	0.42	0.43
Adjusted R^2	0.05	0.05	0.4	0.41

Table 10: Regression Analysis of Voting Values Around Shareholder Meetings

This table lists regression results of voting values measured in the treatment window of shareholder meetings. Continuous voting yields ($\overline{vy}$) are the dependent variable of the Models (1) and (2), the voting yields based on the discrete measurement procedure ($\overline{v}_{\%}$) are used for Models (3) and (4). The first regressor, Shareholder Proposal, is a dummy taking the value of one if at least one vote on a shareholder proposal is on a meeting's agenda. The remaining six regression controls are defined as follows. Size measures the natural logarithm of a company's total assets. Leverage is the debt-equity ratio. ROA stands for the return on assets of the previous year. Block ownership sums up the total fraction of voting rights held by large shareholders. Majority Owner is a dummy that equals one if a single shareholder controls the majority of the voting rights. Finally, Dual Class indicates a dual-class share structure. The t-statistics are based on robust standard errors and shown in parentheses. The significance levels are as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Dependent Variable	Voting Yield ($\overline{vy}$)		Voting Yield ($\overline{v}_{\%}$)	
	Model (1)	Model (2)	Model (3)	Model (4)
Shareholder Proposal	-0.003	0.025	-0.008	0.000
	(-0.07)	(0.46)	(-1.40)	(0.06)
Size	-0.001	-0.069***	-0.013***	-0.020***
	(-0.47)	(-2.66)	(-7.91)	(-9.76)
Leverage	-0.074	-0.104	0.013	0.022
	(-0.91)	(-1.15)	(1.46)	(1.59)
ROA	-0.306	-0.070	-0.140***	-0.065*
	(-0.75)	(-0.16)	(-4.26)	(-1.86)
Block Ownership	0.378**	0.342**	0.087***	0.094***
	(2.19)	(2.08)	(4.18)	(4.34)
Majority Owner	-1.816**	-1.573*	-0.148*	-0.155*
	(-2.23)	(-1.65)	(-1.72)	(-1.66)
Dual Class	-0.245**	-0.284**	-0.012	-0.018
	(-2.03)	(-2.13)	(-1.19)	(-1.60)
Time FE	No	Yes	No	Yes
Industry FE	No	Yes	No	Yes
State FE	No	Yes	No	Yes
Observations	5,167	5,167	5,167	5,167
R^2	0.01	0.08	0.05	0.40
Adjusted R^2	0.01	0.06	0.05	0.39