ORIGINAL PAPER



Doing the Right Thing? The Voting Power Effect and Institutional Shareholder Voting

Efrat Dressler¹ · Yevgeny Mugerman²

Received: 2 September 2021 / Accepted: 20 March 2022 / Published online: 15 April 2022 © The Author(s), under exclusive licence to Springer Nature B.V. 2022

Abstract

Through a combination of a controlled experiment and a survey, we examine the effect of voting power on shareholders' voting behavior at general meetings. To avoid a selection bias, common in archival voting data, we exogenously manipulate shareholders' power to affect the outcome. Our findings suggest that, when it comes to corporate decisions involving conflicts of interest, voting power nudges shareholders to oppose management and to choose the "right" alternative, that is, vote against a proposal which *prima facie* does not serve the company's best interest. This effect obtained even when the dissenting vote contravened the choices of all other voters. Furthermore, the drive "to do the right thing" was established as significant, above and beyond the size of the economic stake. We also demonstrate that strategic voting among institutional investors is contingent on voting power: when in a position to affect the outcome of a vote, institutional investors tend to eschew strategic considerations and display fewer consistent patterns in their voting, compared to situations in which their ability to make a difference is limited. In anticipation of a "bad" proposal to be put to vote at the general shareholder meeting, institutional investors prefer to negotiate terms with management beforehand, and vote against it only after such negotiations fail. Our results shed new light on the "behind the scenes" processes in shareholder voting and underscore the importance of institutional investor agency to corporate governance, accountability, and minority shareholder representation.

Keywords Voting power · Shareholder voting · Business ethics · Corporate governance

JEL Classification $G23 \cdot G30 \cdot G38$

With great power comes great responsibility. Voltaire, Winston Churchill, Theodore Roosevelt, John A. Fitch, and others.

Yevgeny Mugerman Yevgeny.Mugerman@biu.ac.il

> Efrat Dressler Efrat.Dressler@mail.huji.ac.il

¹ School of Business Administration, The Hebrew University of Jerusalem, Jerusalem, Israel

² School of Business Administration, Bar-Ilan University, Ramat Gan, Israel

Introduction

Voting in shareholder meetings is recognized as an important mechanism of corporate governance, and one of the primary means through which shareholders communicate with corporate management. The literature has documented a variety of factors that affect voter behavior, including outcome preferences, the position of other voters (peer effects), self-interest and normative considerations. It is argued here that voters' behavior may also be affected by their ability to determine the outcome (henceforth, "voting power"). How are one's voting patterns impacted by one's voting power? Are powerful shareholders more likely to vote against management than their less influential counterparts? Is "doing the right thing" contingent on the probability of affecting results? This study explores these questions and analyzes the potential impact of the findings on corporate governance and accountability to minority shareholders.

Institutional investors, which represent minority shareholders, often hold large enough stakes to influence the outcome of a vote in the general meeting. They are, therefore, expected to act as gatekeepers and block the approval of bad, i.e., potentially expropriating, deals proposed by management. When asked to vote on such proposals, shareholders—and especially institutional shareholders¹—face a range of economic, as well as ethical dilemmas. Holding a large stake in the company, they bear a larger share of the proposed deal's cost. This circumstance impels them to vote in accordance with what they believe to be the shareholders' best interests. At the same time, they are interested in keeping good business ties with management. Moreover, casting a management-friendly vote² might result in economic value and thus benefit the institution, albeit not necessarily the other shareholders. We hypothesize that the possible solution to these dilemmas depends on the voting power wielded by the shareholder. Voting power could affect the shareholder's decision through a rational economic mechanism, through ethical considerations, or through both. For the purposes of this investigation, however, the mechanism behind this phenomenon is less important than the phenomenon itself.

Our research investigates the link between voting power and voting behavior, and endeavors to uncover possible dynamics behind shareholder voting patterns using two complementary methodologies: an experiment and a survey. First, we conduct a controlled experiment, to identify the effect of voting power on the vote. Specifically, we control for the effects of peer voting, self-interest,³ and economic stake. Second, we hypothesize and test for the effect that voting power might have on other voting patterns such as strategic voting and passive voting. Finally, using a survey, we explore another option institutional investors have to influence corporate decision-making: negotiating the terms of proposed resolutions with management prior to the vote on the floor, outside the confines of the general meeting. We also assess the relation between the voting power wielded by shareholders and their willingness to participate in such negotiations. Information regarding pre-vote negotiations is not public, and therefore analyses of such negotiations are scarce as well. By focusing on the two processes—votingpower effect and behind-the-scenes negotiations—in tandem, this study closes a gap in the literature.

The experiment was conducted in two phases. In the first phase, a sample representative of the general population of private investors were recruited among M-Turk and Prolific users across the US, Canada and the UK. The second phase surveyed investment professionals based on a sample of employees of institutional investors in Israel. In both phases, the respondents were asked to react to a hypothetical scenario involving shareholder approval of a clearly expropriating initiative. The participants were randomly assigned the role as either a pivotal voter or a voter with no impact on the voting outcome. Moreover, the professional respondents in the second phase were also requested to take a more indepth survey targeting their actual voting behavior as well as to provide information on the institutions for which they work.⁴ Studies have shown that institutional investors play a significant role in evaluating corporate governance mechanisms (Picou & Rubach, 2006). Moreover, in markets where corporate ownership is highly concentrated and controlling shareholders dominate even publicly traded companies,⁵ institutional investors play another important role, namely, protecting the interests of minority shareholders (Hamdani & Yafeh, 2013). Examining the role of voting power in such an ownership environment allows for a deeper analysis of voting decisions.

The findings of the first phase demonstrate that having a power to affect the vote prompts participants "to do the right thing," in the sense of taking a decision that is value increasing and ethically sound. Compared to their less powerful counterparts, a significantly higher percentage of participants granted the power to affect the outcome of the vote voted against the proposal presented as unethical in the experiment. This pattern re-emerged under different experimental conditions: first, when participants were told that all their peers had voted in favor of the proposal; second, when an element of self-interest was introduced, such that participants could personally benefit from voting in favor of the proposed deal; and third, when participants held equal stakes of the company's shares. The consistent results obtained under these additional conditions attest to the robustness of the voting-power effect, even in the face of peer effects, self-interest, and economic stake. It is

¹ In this paper we use the terms "institutional shareholder" and "institutional investor" interchangeably.

² Management-friendly voting by institutional shareholders was documented by Hamdani and Yafeh (2013) and by Matvos and Ostrovsky (2010). Such a management-friendly vote would benefit the shareholder with business ties that might translate later to economic value to the institution (Davis & Kim, 2007; Cvijanovic et al., 2016).

³ The term "self-interest" is used here to refer to behavior that is consistent with the assumption that one acts rationally to maximize one's own utility. Such behavior might benefit the voter but not the other shareholders that are affected by the vote. In such cases, self-interest is fraught with a conflict of interest. An example might be personal ties with the nominee or other business ties with the company at hand. See Footnote 2.

⁴ A similar methodology, involving an experiment followed by a survey of experts, is taken, for example, by Libby and Rennekamp (2012), Kachelmeier et al. (2020).

⁵ As in the case of Israel and many other countries outside the U.S. and the U.K. (Fried et al., 2020; Gutiérrez & Sáez Lacave, 2018).

noteworthy that responsibility and morality were *explicitly* mentioned by participants as the main cause for their vote.

The purpose of the survey, administered in the second phase, was to examine whether our experimental findings match the voting tendencies of institutional investors' employees, and to further explore the effect of voting power on the different patterns and considerations in shareholders' vote. The results show that institutional investors tend to vote against bad proposals. These findings contradict the empirical findings in Dressler (2020), where voting power was found to be positively associated with supporting management-sponsored proposals. This discrepancy might stem from a possible selection bias inherent in Dressler (2020) and other literature on shareholder voting based on ex-post observation⁶: Management tends to bring to vote at the general shareholder meeting primarily those transactions which they estimate ex-ante to have a high probability of being approved. Indeed, they may have already discussed the matter with shareholders, or possibly previous experience with similar proposals has proven the terms to be acceptable. Less unequivocal transactions are typically negotiated behind the scenes. Thus, an *observed* harmony in voting decisions may be due, at least in part, to selection.

The following scheme illustrates the typical path of a proposal slated for shareholder approval: investors to act as gatekeepers to prevent or mitigate value expropriation.⁷

The purpose of the survey is to shed light on this process. In particular, the survey probes the differences between large and powerful and relatively small institutional investors, the latter usually holding insufficient number of shares to affect the outcome of a vote. The survey indicates that the vote of powerful institutional investors is guided less by strategic considerations and more by the analysis of the issues being voted on; moreover, such voters tend to analyze the issue independently rather than rely on recommendations of proxy advisors.

We also find that institutional investors negotiate the terms of proposals they perceive as "bad" with management. This tendency, however, does not seem to depend on voting power: respondents from diverse types of institutions, irrespective of the amount of assets managed or the power to affect the vote, indicated a high probability of negotiating with the management on proposals they are dissatisfied with.

Our findings may be useful for regulators: When selfinterest is involved and institutions must choose between good relations with management and their fiduciary duties to their clients, a greater power to affect the results might propel them toward a *value increasing alternative* and an



The experiment here does not involve a sample selection bias or other obstacles associated with the empirical analysis of actual voting data. Moreover, whereas an archival study "sees" only the final picture, a survey affords the possibility to peek behind the scenes and examine institutional shareholders' considerations in making voting decisions. In public companies, institutional investors may play a vital role in the unobservable stages of the decision-making process. Accordingly, in numerous "delicate" corporate governance situations, regulators may place their trust in institutional *ethically right* decision. The results allow for a certain degree of optimism in respect of corporate governance. The power to affect the outcome is particularly important in issues such as appointment of independent directors—whose role is critical in representing the minority shareholders in the board room or related-party transactions, which may be used as a tool for value expropriation by the company's controlling shareholders. Our results suggest that institutional investors are in a position to use their power constructively

⁶ For example, Ashraf et al. (2012), Cai et al. (2009), Davis and Kim (2007), and more.

⁷ Such a regulatory change was effected in Israeli corporate law pertaining to corporate governance in public companies stipulating a special majority requirement (Majority of Minority) for shareholder approval in a variety of corporate decisions, including related party transactions with controlling shareholders [Amendment 16 to the Companies Law (Improving Corporate Governance 2011)].

to affect the outcome of a vote. Arguably, we now have stronger grounds to expect that institutional investors may opt to consolidate their gatekeeping role in enforcing good governance and corporate responsibility within their portfolio companies.

Related Literature and Research Hypotheses

Our research builds on two related bodies of literature. The first is archival and experimental studies in behavioral economics, focusing on the factors affecting individuals' voting behavior.⁸ The second is the corporate governance literature focusing on voting behavior of institutional investors. Several models have been proposed to explain the motivations behind individuals' voting behavior, of which two are salient to this discussion. The "instrumental voting" model assumes that a voter's behavior is rational and designed to maximize value⁹; thus voter preferences are determined by the desired outcome. The "expressive voting" model posits that the motivation for voting may be related not only to one's concern about the ultimate outcome but also to the significance of the very act of voting (reviewed in Hamlin & Jennings, 2011). Through voting, one may express not only one's position on an issue, but also one's social identity (Shayo, 2009), social norms (Yin et al., 2021), inequity aversion, moral stance, and self-image (Shayo & Harel, 2012).

Both models presented above are premised on the assumption that voting power matters, and that one's confidence in one's ability to make a difference affects one's vote (Kamenica & Brad, 2014). Indeed, Choshen-Hillel and Yaniv (2011) demonstrate that an individual's preferences may be contingent on his or her role in determining the outcome. These authors assign importance to the degree of an individual's agency (by this phrase they mean effective power) in the decision-making process. Both the instrumental and the expressive voting models give rise to the prediction that the greater one's ability to determine the outcome, the more one's vote will be self-serving. This pattern is confirmed in Shayo and Harel (2012), whose research is particularly relevant for our study. The authors identify selfimage and morality as non-consequentialist motivations and emphasize the importance of these factors when the voter's effect on the outcome is small, or in other words, when the probability that a vote should prove pivotal is negligible.

Shayo and Harel's experiment is designed such that the morally "right" decision is clearly at odds with participants' economic interest, and therefore a vote is affected by the non-consequentialist motivations only when the probability of influencing the outcome is very low. At the same time, however, observers who decided on behalf of others voted more for an ethical, rather than self-serving alternative if their vote was likely to be pivotal. In the corporate context, an individual who votes in lieu of an institutional investor on behalf of its clients, and is thus bound by the fiduciary duty, is expected to vote for the ethical alternative in line with the expressive voting model.

The literature on the voting behavior of institutional investors points to three salient factors. Matvos and Ostrovsky (2010), Mugerman et al. (2014), and Dressler (2020) all demonstrate that shareholder voting is subject to peer effects.¹⁰ Matvos and Ostrovsky (2010) and Dressler (2020) also find an enduring pattern in institutional voting of what they term "management friendliness," i.e., the tendency to support management. Furthermore, Hamdani and Yafeh (2013) and Cvijanovic et al. (2016), among others, show that institutional investors vote in shareholder meetings according to business ties with their portfolio companies. All in all, institutional investors who want to be on the good side of management may find voting against it costly. In such circumstances, if management issues a value expropriating proposal, voting may be fraught with conflict, whereupon voting power comes into play: In the event that a shareholder's stake in the company renders his/her vote pivotal, the economic considerations related to the value of the firm may override business ties or even self-interest, leading to a vote against a value expropriating proposal. It follows that an ethical choice can be aligned with the instrumental voting approach, associated with rational behavior. This rationale underlies the first set of our testable hypotheses, which are subsumed under the rubric of "the voting-power effect":

H1a: Voting power drives voters to act responsibly, i.e., to vote against management on a value-expropriating proposal.

We likewise test whether the voting-power effect overrides forces operating in the opposite direction that the literature identifies as salient to shareholder voting:

H1b: Voting power drives voters to act responsibly and vote against management on a value-expropriating proposal, even if such a vote does not align with those of peers.

⁸ The empirical literature on voting deals either with political voting or with shareholder voting in the general meeting of a public company.

⁹ In the political science literature, this assumption gives rise to a paradox: Inasmuch as the probability that a single vote will decide the outcome of an election is low, voting choices appear to be irrational. See Ferejohn and Fiorina (1974).

 $^{^{10}}$ This effect, sometimes called "herding behavior," is also found in the voting decisions of boards of directors in Gonzalez et al. (2006) and Yin et al. (2021).

H1c: Voting power drives voters to act responsibly and vote against management, even in contravention of self-interest.

Voting power can be affected either by a change in the shareholder's own share in the company or by a change in the majority rule.¹¹ The latter strategy can be used by regulators as a main policy tool to empower shareholders, and specifically institutional shareholders. A stronger version of H1 is designed to disentangle the effect of voting power from that of an economic stake.

H1d: Voting power drives voters to act responsibly and vote against management, even if cash flow rights are unchanged.

Next, we want to examine the effect of voting power on institutional investors' tendency both to vote strategically, and to opt for passive voting.

The theoretical literature on shareholder voting strategy suggests that shareholders' votes may be governed not only by the perceived merits of the proposal or private information about it. Maug and Rydqvist (2009) and Levit and Malenko (2011) argue that the tendency to vote strategically is largely based on whether or not one's vote is pivotal. In line with the theoretical predictions, we expect that shareholders who have the power to affect the outcome will tend to vote less strategically (in the sense of not voting according to their economic interests), especially when the decision to vote involves opposing management. In connection with strategic voting, Ginzburg et al. (2022) maintain that shareholders are liable to vote against a favored outcome if they can derive utility from the act of voting itself. This behavior, however, occurs only if the shareholder is small enough not to affect the outcome of the vote. In an empirical study on fund managers' votes on Environmental and Social (ES) issues, Michaely et al. (2021) find that ES funds in non-ES families tend to vote strategically: in favor of proposals that either pass or fail by a large margin but against a proposal contravening family preferences when their votes are likely to be pivotal. Hence the first of our second set of hypotheses:

H2a: Strategic considerations influence non-pivotal votes more than they do pivotal votes.

In the context of this discussion, strategic considerations are long-term interests a voter takes into account, above and beyond the issue itself. These are different from what we termed in H1c as "self-interest," which is essentially a direct and real-time economic incentive. One may, for example,

vote against a proposal that one perceives as expedient in order to uphold one's reputation.¹²

The next issue we address is passive vs. active voting. Passive voting is a pattern whereby, using Iliev and Lowry's (2015) definition, an institution completely relies on proxy advisory recommendations, whereas active voting is based on assessing and evaluating the issues under deliberation independently (p. 447). Regulators have voiced concern whether voting based solely on a proxy advisor's recommendations truly fulfils institutional investors' fiduciary duty toward their clients.¹³ This caveat is especially salient if the institutional investor can affect the outcome of a vote. In such a case, one may feel justified in devoting resources to assessing and evaluating the issue up for a vote. Furthermore, when an investor knows that they cannot affect the outcome, they may opt for passive voting. This argument leads us to the following hypothesis:

H2b: Non-pivotal shareholders tend to vote passively more than pivotal ones.

A growing body of literature focuses on the "behind-thescenes" actions institutional investors typically take prior to shareholder voting. McCahery et al. (2016) survey institutional investors' corporate governance preferences and ways to engage with management when they are dissatisfied with the performance of a portfolio firm or are considering divesting interest in it.¹⁴ Lauterbach and Mugerman (2020), for example, show that pre-offer negotiations between institutional investors and management effectively increase premiums for shareholders in "freeze-out" tender offers. Their findings suggest that institutional investors make their voice heard loud and clear behind the scenes. Logsdon and Van Buren (2009) analyze dialogues between corporations and activist shareholders which occur behind the scenes and spark social change. But management cannot negotiate the terms of proposals with all shareholders, since there are too many, even in a relatively concentrated ownership environment. In addition, for institutional investors, negotiating with management is costly since it requires time and human resources, and might also dilute business ties between the parties. Therefore, we assume that management will target

¹¹ See the discussion on a priori voting power in Felsenthal and Machover (2004).

 $^{^{12}}$ We investigate this issue in depth using a survey among institutional employees – see Phase 2.

¹³ As a main concern, Clark and Van Buren (2013) highlight conflicts of interest that beset the operations of proxy advisory firms. In the opinion of Malenko et al. (2021), a main concern is the incentive for proxy advisers to produce a biased recommendation. Ma and Xiong (2021) show that a monopolist advisory firm skews its recommendations.

¹⁴ Cox, Brammer, and Millington (2004) also examine institutional investors' preferences.

those shareholders that can affect the outcome of a vote, either independently or by forming a united front with other shareholders. Shareholders who wield the power to make an impact are liable to use this as leverage to negotiate the terms of a proposal with management. In the cases where their power is limited, however, they will leave such negotiations to other, more pivotal, shareholders.

H3: The terms of a proposal are negotiated prior to the actual vote at the shareholder meeting between management and pivotal shareholders.

To the best of our knowledge, the above detailed hypotheses H1 and H2 have not been tested empirically. Moreover, H3 complements existing literature, e.g., Lauterbach and Mugerman (2020), McCahery et al. (2016).

Phase 1: Experiment Design (Four Studies)

In the first phase of this research, a questionnaire (presented in Appendix A online) was distributed over Amazon's Mechanical Turk (M-Turk) platform (Studies 1-3) and over Prolific platform (Study 4).¹⁵ Online platforms such as M-Turk and Prolific have advantages over a laboratory: They provide access to a wider and more diverse population and are more expedient, less expensive, and easier to operate. Previous research has demonstrated the validity and robustness of online experiments.¹⁶ Prolific and M-Turk compete each other in providing similar services and yield data of comparable quality (Peer et al., 2017). Moreover, Prolific screen all candidates before adding them to their pool by asking them to answer a set of questions (Bezalel et al., 2021). All in all, in recent years, an increasingly large number of studies published in academic journals have been based on these two online labor markets.¹⁷

All participants of the first phase of the research were presented with the following scenario:

Imagine you are a shareholder in a big corporation (you own some of its stocks). The company is about

to elect a new CEO (a senior manager). The Chairman of the Board suggests the appointment of a candidate whom you do not know, apart from some outstanding CV details that were mentioned. The salary suggested for the new CEO is four times larger than the salary of the former CEO. You are troubled by this increase in salary and suspect that the Chairman (who has initiated the proposal) has some other connections with this candidate but you are unsure.

The participants were then asked to vote either in favor of or against the proposed nomination and were also given the option of commenting, in response to an open question, on the reason(s) for their vote.

The above scenario involved two atypical circumstances: a dramatic increase in the salary of the nominee and the possibility of an ulterior motive on the part of the Chairman of the Board. Paying a much higher salary for the same job clearly contravenes social norms and is meant to elicit inequity aversion. The possibility of personal connections makes it likely that the nomination will be perceived as a morally dubious corporate behavior.¹⁸ At the same time, some highly paid CEOs are known to be talented managers, and their worth to the company surpasses by far the money spent on their salaries. Possibly, the candidate in the case in point is one of such talented, rare individuals-and the Chairman knows this from their association outside the company. On the other hand, the nomination could be merely a case of nepotism-an eventuality implied in the phrasing of the scenario. In this case, the appointment would not maximize the company's value and therefore the "right choice" based on merit would be to vote against it. The mention of "outstanding credentials" from the candidate's CV is designed to serve as a counterbalance and justify a vote in favor of the nominee, forasmuch as a proposal laying down a disproportionately large salary but failing to balance it out with some laudatory information would be liable to result in a very high proportion of "against" votes, creating a ceiling effect which could cloud the potential impact of voting power on the decision. Likewise in consideration of a ceiling effect, we simulated what is termed in the literature as "the peer effect": some of the participants were told how their peers had voted. To ensure that reputation is factored in as a consideration, we informed participants that their vote would be publicized. Institutional shareholders are wary of putting their reputation at risk, and the publication of their vote renders them more accountable for their vote choices. By including in the questionnaire the information

¹⁵ All participants were English speakers residing in the US, Canada, or the UK, and ranked very high (above 95%) on the approval rating scale – a grade attesting to the quality of work rendered by M-Turk workers or Prolific participants as submitted by previous work providers. For each participant, information was collected about their sex, age, and education (number of years). We ensured that no participant could answer the survey more than once.

¹⁶ Paolacci et al. (2010), Horton et al. (2011). Specifically, Chandler and Kapelner (2013) confirm suitability for field experiments in economics; Farrell et al. (2017) focus on research designs in accounting.

¹⁷ See for example Shen et al. (2014), Daly and Nataraajan (2015), Schmidt and Jettinghof (2016), Hurwitz et al. (2021).

¹⁸ Branzei et al. (2018) mention that a morally dubious corporate behavior might damage the firm's reputation and, if repeated over time, could affect its cost of capital or risk premium.

Table 1 Experimental design

	Information about peer voting					
Power to affect the outcome	Group 1:	Group 3:	Group 5:			
	Unknown power,	No power,	No power,			
	No information about peers	All peers vote in favor	All peers vote against			
	Group 2:	Group 4:	Group 6:			
	Pivotal power,	Pivotal power,	Pivotal power,			
	No information about peers	All peers vote in favor	All peers vote against			

Participants in the experiment were assigned to one of six groups, differing in voting power and the information they received about the way the other shareholders at the meeting had voted. The voting-power effect is measured by comparing the voting results of Groups 1 vs. 2; 3 vs. 4; and 5 vs. 6

		Study 1	Study 2	St	udy 3	Study 4
N		147	591	58	4	410
Female (%)		43%	47%	51	%	57.8%
Age (years)		35.0	35.3	36	.5	29.1
Years of education		15.1	15.4	15	.5	16.3
Excluded observations	-	5 (3.3%)	11 (1.8%)	17 (2.	8%)	15 (3.7%)
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
N	246	199	246	196	237	198
Female (%)	48.4%	51.8%	54.5%	46.4%	44.7%	42.9%
Age (years)	36.5	35.9	35.7	35.9	35.4	35.3
Years of education	15.6	15.2	15.4	15.3	15.6	15.2

 Table 2
 Statistics from Studies (1-4)

The first three studies involved three different questionnaires that we ran on the M-Turk platform. Study 1 comprised only Groups 1, 3 and 5, which differed in terms of the information participants received regarding the putative votes of all their peers. Study 2 comprised the entire six groups, paired off (no power vs. pivotal power) to cover all alternatives with regard to peer voting (no information, all peers vote in favor of the proposal, and all peers voted against); see Table 1. Study 3 was similar to Study 2, but self-interest was newly introduced. Study 4 was run on Prolific platform, using four groups, all of whose members were presented a self-interest, and all were told that their peers' vote in favor of the proposal. The management-sponsored proposal (nomination of an exorbitantly overpaid CEO) was presented to participants across all groups and studies

about publicizing the vote, we were able to control for the reputation effect for all participants.¹⁹

We added a stipulation that all participants must vote either for or against the proposal, not allowing for abstentions. This requirement enabled us to receive the participants' opinion with a relatively small number of survey forms filled.²⁰

In Phase 1 of the research, using Qualtrics software, the participants were randomly assigned to a group (see Table 1), and accordingly received information regarding their voting power, that is, the probability for their vote to affect the outcome. Summary statistics on the respondents for all studies and groups are presented in Table 2. We compared group averages for all objective personal characteristics to ensure that the assignment to groups was random. The responses of participants who provided wrong answers to two comprehension questions were excluded from the analysis. It is likely that those participants had filled out the questionnaire solely to receive the payment, and therefore, may not have read the text carefully. Thus, their answers may have not reflected their true opinion on the subject.

The following sections describe the experimental conditions employed in each of the four studies in Phase 1.²¹

¹⁹ Another consideration shown in the literature to affect institutional voting is a proxy recommendation (for example Malenko & Shen, 2016). This factor is expected to have the same impact as peer voting, and therefore we excluded proxy recommendations from the research design.

²⁰ In Israel, all institutional investors are required to cast a vote on certain issues. The regulatory aim is to compel institutional investors to play an active role in their portfolio companies and to be accountable for their part in corporate decision-making.

 $^{^{21}\,}$ The exact phrasing of the questionnaire can be found in Appendix A online.

Table 3Results of Study 2

	Group 1	Group 3	Group 5
	Unknown power to affect the outcome,	No power to affect the outcome,	No power to affect the outcome,
% of votes "against"	92.9%	62.5% (96)	84.2%
	t=0.21	t = -2.57	t = -1.71
	<i>P</i> value = 0.58	<i>P</i> value = 0.0054	<i>P</i> value = 0.044
	Group 2 Pivotal power to affect the results, No information about peers	62.5% (96) $t = -2.57$ $P value = 0.0054$ Group 4 Pivotal power to affect the results, mation about peers All peers vote in favor	Group 6 Pivotal power to affect the results, All peers vote against
% of votes "against"	92.1%	79.0%	92.1%
	(101)	(100)	(101)

The percentage of votes against the proposal in each group. In parenthesis, the number of participants who had completed the questionnaire. The power to affect the outcome in Group 1 is unknown since nothing is mentioned in the respective questionnaire regarding the direction or weight of the votes of other shareholders. *T* statistics and *P* values represent the test for hypotheses H1a-b: the voting power effect, comparing groups 1 and 2, 3 and 4, 5 and 6

Study 1—Basic

We began by testing for the peer effect, which has been well documented and extensively described in the literature. The robustness of this effect in previous studies indicates that, in our research, the participants would have understood the questionnaire as intended and that the vote choice that would preclude value expropriation in the case in point was unambiguous. First, we ran a basic survey in which the participants were assigned to one of three groups: 1, 3, or 5. The first group did not receive any information other than the scenario presented above and were asked to vote based only on the strength of its content. Groups 3 and 5 received additional information regarding the votes of their peers. In Group 3 all other shareholders have voted in favor of the appointment (thus the appointment was going to be approved regardless of the participant's vote) and in Group 5 all other shareholders have voted against the appointment (thus the appointment was going to be rejected, regardless of the participant's vote).

The questionnaire was sent to 150 participants.²² We expected a high percentage of "against" votes in Groups 1 (by default) and 5 (reinforced by the peer effect), and a lower percentage of "against" votes in Group 3 (where the peer effect would operate against the default). Indeed, the results followed our expectations:²³ 84.9% of the participants in Group 1 voted against the proposal, thus supporting our first

assumption that the "right" alternative in the given situation would be perceived as voting against the proposal and against the company's board of directors. In Group 3 only 64% voted against the proposal. The difference between the responses in Groups 1 and 3 is significant at 5%, illustrating the already well-documented peer effect. In Group 5, 84.2% voted against the proposal, on a par with Group 1.

Study 2—Voting Power

Study 2 is designed to test for the voting-power effect, while controlling for the peer effect (*H1a* and *H1b*). To the three groups of Study 1, we added three new groups—2, 4, and 6. Group 2 received no information regarding the votes of the other shareholders, while Groups 4 and 6 did, as in Groups 3 and 5, respectively. All participants in each of the three groups (2, 4, and 6) were informed that their vote is pivotal; hence they had the ability to affect the outcome of the vote.

The possibility for each participant in the five groups (all but Group 1)²⁴ to affect the outcome was clearly binary: s/ he either does or does not affect it. This design precludes any discrepancy which may arise between perceived and actual voting power. The voting-power effect is expected to be expressed through the distinctions in the proportion of "against" votes between Groups 1 vs. 2, 3 vs. 4, and 5 vs. 6. The groups in each of these pairs share the same information about the way the other shareholders have voted but differ

 $^{^{22}}$ Our initial requirement was a minimum of 50 completed forms for each group. The final number varied to some extent, as shown in Table 2.

²³ The results of the first study support previous literature, and hence are not tabulated; they can be provided on request.

²⁴ The participants in Group 1 did perceive a small chance to affect the outcome, since they did not know anything about their peers' vote and had no other relevant information. To reiterate, however, this probability was low, since according to the questionnaire, each participant was one of nine shareholders participating in the vote.

	Group 1	Group 3	Group 5
	Unknown power to affect the outcome,	No power to affect the outcome,	No power to affect the outcome,
	No information about peers	All peers vote in favor	All peers vote against
% of votes "against"	61.1%	37.0%	83.7%
	(95)	(100)	(98)
	<i>P</i> value = 0.047	<i>P</i> value = 0.002	<i>P</i> value = 0.72
	Group 2	Group 4	Group 6
	Pivotal power to affect the results,	Pivotal power to affect the results,	Pivotal power to affect the results,
	No information about peers	All peers vote in favor	All peers vote against
% of votes "against"	72.4%	57.3%	79.6%
	(98)	(96)	(98)

 Table 4 Results of Study 3, involving self-interest

The percentage of votes against the proposal in each group. In parenthesis, the number of participants who had completed the questionnaire. The power to affect the outcome in Group 1 is unknown since nothing is mentioned in the respective questionnaire regarding the direction or weight of the votes of the shareholders. P values represent the test for hypothesis H1c: the voting power effect, comparing groups 1 and 2, 3 and 4, 5 and 6

in the perception of their putative impact on the outcome. This study involved 591 respondents, approximately 100 per group (see Table 3). We expected the voting-power effect to propel the shareholders to vote against the proposal, as they were aware that opposing management was the right thing to do in the circumstances.

Study 2: Results and Discussion

The results of Study 2 are presented in Table 3. The ceiling effect was observed in the groups that had not received any information about the votes of other shareholders: In Group 1, whose members did not know whether or not they could affect the outcome, 92.9% voted against the proposal, compared with 92.1% in Group 2, where participants were told they would definitely make a difference. The rate of negative votes for both groups is almost identical, and very high, such that a voting-power effect is not clearly discernible.

The results of the other two comparisons are quite different. The voting-power effect emerges clearly when the rates of "against" votes are compared between Groups 3 and 4, in both of which participants had been told that all the other shareholders had voted in favor of the proposal. Our results attest to a strong and significant voting-power effect: 16.5% more empowered participants voted according to what they perceived to be the right choice (difference statistically significant at 1%), even when they stood alone against all the other shareholders.

The voting-power effect was also observed when it reinforced the peer effect. When all the other shareholders had voted against the proposal, 84.2% of the participants in the disenfranchised Group 5 voted likewise, compared to 92.1% in the empowered Group 6, a significant (at the 5% level) difference of 7.9%. The results of Study 2 support hypotheses *H1a* and *H1b*, i.e., our prediction regarding the role of

voting power: The ability to affect the results fosters a sense of responsibility and induces individuals to vote according to what they see as the substantively better choice for the company and its shareholders.

Study 3—Voting Power and Self Interest

In Study 1, the participants had to choose between supporting management, on the one hand, and voting in the best interests of the company and its shareholders in opposition to management, on the other. In Groups 3 and 4 in Study 2, the scenario also required opposing the stand taken by all the other shareholders. In both Studies 1 and 2, one's choice affected one's personal wealth only insofar as the value of the company's stock was concerned, and therefore, the company's and the shareholder's self-interest converged. Study 3 tests if the voting-power effect, as demonstrated by the results of the second study, holds also when the decision involves a conflict between the company's interest and the shareholder's personal interest (H1c), so that a participant's direct interest would be best served by voting in favor of the bad proposal and against the benefit of the company as a whole. This type of conflict may arise in reality when a shareholder's interests are anchored in considerations other than the company's wellbeing and converge with those of the corporate management initiating the proposal.

Like Study 2, Study 3 involved six groups, comprising a total of 585 participants, all of whom received additional information, namely, that the nominee CEO intends to hire their good friend, whom they care deeply about.

A comparison of this study's results to those of Study 2 was expected to reveal the effect of self-interest on voting behavior. Accordingly, we expected the proportion of votes against the proposal to decline relative to Study 2 in all the six groups. This scenario also allowed us to test whether the Fig. 1 Proportion of votes against the proposal, according to peer voting information. This figure shows the proportion of participants who voted against the proposal. The three left columns represent participants from Study 3, who had a personal interest in the proposed nomination, while the three right columns represent participants from studies 1 and 2. Blue bars stand for the disenfranchised participants, those who had no power to affect the outcome, while the red bars represent those with a pivotal power to do so. The asterisk symbol ** in each pair of bars indicates significance of the difference in the proportions (T-test) at the 5% level. Std. errors are in parenthesis



voting-power effect endures in cases involving a conflict of interest. We anticipated that the voting-power effect would be observed even in the face of conflict of interest, due to participants' awareness of the responsibility and the economic incentive stemming from their voting power.

Study 3: Results and Discussion

Table 4 reports the results of Study 3. The information regarding peers' vote is parallel to the previous study. As expected, we observed a steep decline in negative votes when the possibility of jeopardizing participants' personal interest was introduced. In the disenfranchised Group 1, 61.1% voted against the proposal. In the empowered Group 2, where each participant's decision was pivotal in affecting the outcome, 72.4% voted against the proposal (difference significant at 5%), attesting to the presence of a voting-power effect in Study 3 under similar experimental conditions that did not yield such an effect in Study 2.

The voting-power effect also emerged in the groups where the other shareholders had voted in favor of the proposal. Here again, the willingness to reject management's "bad" proposal dropped precipitously once the possibility of a conflict of interest was introduced. In Group 3, 37% voted against the proposal, while in Group 4, this ratio stood at 57.3%. This 20.3% difference (statistically significant at 1%) is even larger than the difference observed in Study 2 (16.5%), where no conflict of interest was involved.

The third comparison, between the groups where all the other shareholders had voted against the proposal, does not

show a significant voting-power effect. The proportion of disenfranchised participants who voted against the proposal at the outset is high enough (83.7%) for the ceiling effect to overshadow any voting-power effect. A small, statistically insignificant (4.1%), decline was observed in the proportion of negative votes among empowered participants, but the majority still opted for the morally right choice, even in the face of a possible conflict of interest.

Overall, the results support the stronger prediction regarding the voting-power effect, as per hypothesis *H1c*. Even when a shareholder's self-interest was pitted against the wellbeing of the company and all of its shareholders, the voting-power effect could still be observed. *Ceteris paribus*, individuals endowed with the power to affect the outcome of a vote seem to resist self-serving motives and take a morally sound decision.

One must keep in mind, however, that the magnitude of self-interest may be a determinant in voters' choices. Public Choice Theory (PCT) and Behavioral Ethics (BE) both predict that public officials and small-interest groups alike will be prone to self-interested behavior (Zamir & Sulitzeanu-Kenan, 2018). According to PCT, such behavior becomes more pronounced with the increase in self-interest, consistent with the assumption that one acts rationally to maximize one's own utility. BE suggests that the prevalence of self-interested behavior is due to automatic and primarily unconscious psychological processes; that said, in the cases when the conflict of interest is unambiguous and unmistakable, officials are more likely to recognize it and control their supposedly automatic tendency to advance their own interests.

	Group 1 No power to affect the outcome, 1% holdings in shares	Group 3 No power to affect the outcome, 5% holdings in shares
% of votes "against"	41.7% (103) P value = 0.039	45.2% (104) <i>P</i> value = 0.029
	Group 2 Pivotal power to affect the outcome, 1% holdings in shares	Group 4 Pivotal power to affect the outcome, 5% holdings in shares
% of votes "against"	54.7% (95)	58.7% (92)

 Table 5
 Results of Study 4, controlling for the economic incentive

The percentage of votes against the proposal in each group. In parenthesis, the number of participants who had completed the questionnaire. *P* values represent the test for hypotheses *H1d*: the voting power effect, comparing groups 1 vs. 2 and 3 vs. 4. All participants received the same information regarding peer voting in favor of the appointment and regarding their self-interest

The element of self-interest in Study 3 was nested in the information whereby the CEO candidate, who would be blatantly overpaid if nominated, would be willing to employ the shareholder's friend as a personal assistant. In light of the PCT and BE approaches, discussed above, it is possible that a more clear-cut, monetary interest would have either mitigated or accentuated the voting-power effect. If the participants' behavior aligned with PCT, the voting power effect would become weaker. If, on the other hand, the BE mechanism was at work, the voting power effect would be augmented, and even fewer votes would be cast in favor of the proposal. Our experiment did not test for a threshold beyond which the voting-power effect prevails over self-interest. The self-interest scenario we tested did not involve actual and meaningful monetary incentives, and the results must therefore be regarded as tentative. Nonetheless, participants clearly discerned that the scenario involved self-interest, judging by the sharp decline in the number of respondents willing to vote against the proposal (see the difference between the left and the right sides of Fig. 1). A more detailed investigation of this issue must be left for future research.

Study 4—Voting Power and Economic Stake

The first three studies share the same structure, designed to isolate the voting-power effect from other well-known effects, as discussed before. Such a design, however, allows for the possibility that empowered participants may regard their voting power as an economic incentive: Insomuch as their voting power derives from holding a large stake in the company, they are incentivized to vote against the nomination, since they must pay a larger share of the company's expenses, including the CEO's higher salary. In this case, their voting behavior is not only ethically justified but also economically expedient—even in the presence of a self-interest that contradicts the company's and its shareholders' wellbeing: the higher the voter's ownership stake, the more likely are considerations of cost to override self-interest, and the more likely the shareholder is to vote against a bad proposal.

The above scenario is consistent with *H1a*, but to check for the stronger hypothesis, H1d, the economic stake and the voting-power effect need to be tested independently of each other. Accordingly, Study 4 was designed to confirm the voting-power effect while controlling for economic stake. We used the same scenario as in the first three studies, with several modifications. First, the participants were told their exact share in the company: either 1% or 5%. Similar to Study 3, we used two strategies (the peer effect and a self-interest element) to reduce the rate of negative votes, in order to avoid the ceiling effect. However, we no longer required the groups whose participants were informed that all their colleagues had voted against the proposal. Thus, Study 4 used four groups all in all (see Table 5), all of whom received the same message regarding their conflict of interests and their peers voting in favor of the appointment. In addition, two groups (Group 1 and Group 3) served as controls, unable to affect the vote outcome. In both these groups, participants were also told their specific holdings in the company: either 1% (Group 1) or 5% (Group 3). The two other groups (Group 2 and Group 4) had a pivotal power to affect the vote outcome, and their holdings were the same as in Group 1 and Group 3, respectively.

For Study 4, we used the Prolific platform and screened the participants according to their education and investment history.²⁵

²⁵ We required a college diploma as a minimum, and an affirmative answer to the item about an investment in the common stock or shares of a public company.

Table 6 The effect of voting power on the probability of voting against the proposal

	All observati	ons			Only self-intere	ested
	(1)	(2)	(3)	(4)	(5)	(6)
Voting power	0.385*** (0.13)	0.423** (0.138)	0.555*** (0.143)	0.791*** (0.25)	0.50*** (0.189)	0.722*** (0.219)
Peers vote against		0.431** (0.186)	0.471** (0.191)	0.658*** (0.239)	0.888*** (0.247)	1.319*** (0.335)
Peers vote for		-0.999*** (0.158)	-1.072*** (0.164)	- 1.079*** (0.165)	-0.886*** (0.218)	-0.893*** (0.22)
Self-interest			-1.207*** (0.145)	- 1.158*** (0.187)		
Voting power \times self-interest				-0.207 (0.32)		
$VP \times Peers$ against				-0.664 (0.479)		-0.901** (0.438)
$VP \times Peers against \times SELF$				0.304 (0.523)		
Age		0.031*** (0.007)	0.036*** (0.007)	0.036*** (0.007)	0.043*** (0.009)	0.044*** (0.009)
Education		0.046 (0.029)	0.057* (0.03)	0.057* (0.03)	0.045 (0.039)	0.042 (0.039)
Female		-0.118 (0.138)	-0.063 (0.143)	-0.065 (0.143)	0.008 (0.192)	0.004 (0.193)
Ν	1322	1297	1297	1297	583	583
Pseudo R ²	0.006	0.082	0.133	0.135	0.116	0.121

This table presents logistic regressions; the dependent variable is the "against" vote (1 = against, 0 = in favor). Columns 1–4 include observations from studies 1–3. Columns 5 and 6 include observations from Study 3 alone, in which the voter's judgment was potentially swayed by self-interest. Std. errors are in parenthesis

The asterisk symbols *, ** and *** stand for significance at the 10, 5, and 1% levels, respectively

Study 4: Results and Discussion

Table 5 reports the results of Study 4. A voting-power effect emerges when the disenfranchised Groups 1 and 3 are compared with the empowered Groups 2 and 4, respectively. Let us assume for a moment that the voting-power effect observed in Studies 2 and 3 was due exclusively to the economic incentive such that larger stakes in the company translate to a larger share of the costs entailed by the proposal. Under this assumption, we would expect the percentage of votes against the proposal to be similar in groups with similar share holdings. However, if—as per H1d—voting power exerted an independent effect on the shareholders' decisions, we would expect to find a significantly higher ratio of negative votes in the groups whose members' vote was pivotal. Among the participants with a share of 1% holdings in the company, 41.7% voted against the proposal when they could not affect the outcome (Group 1), as opposed to 54.7% when their vote was pivotal (Group 2) (difference significant at 5%). The same pattern recurred for 5% holdings: 45.2% of participants in the disenfranchised Group 3 voted against the proposal, compared to 58.7% in the empowered Group 4 (difference significant at 5%).²⁶ The above two gaps attest to the existence of a voting-power effect operating above and beyond the economic stake, thereby validating H1d. The ratios of negative votes in Study 4 are similar to those in Study 3, suggesting that the results of both studies are robust. We must note, however, that these results cannot be ascribed solely to ethical considerations. To be sure, voting against management exacts a toll, in that it may jeopardize business ties. However, shareholders who have the power to affect the outcome will still vote against management on a value-expropriating proposal, even if their cash flow stake is kept fixed, because they stand to gain economically from the desired outcome, and the gain may override the costs. In other words, their vote may be governed by ethical sensibilities, but these align with economic considerations, or incentives, as we term such factors here.²⁷

²⁶ Note that if Group 1 is compared to Group 3, and Group 2 to Group 4, the result is in keeping with the rational economic mechanism: Voters with larger cash flow stake are more likely to vote "against" because they bear a larger share of the expropriating proposal's cost.

²⁷ We thank the referee for suggesting this qualification.

1101

The following sections summarize the results of all the four studies of Phase 1 and discuss in more detail the effect of voting power on voting behavior.

Summary of the Results from Phase 1 and General Discussion

Figure 1 presents the proportion of participants who voted against the proposal in Studies 2 and 3. The key results regarding the voting-power effect are displayed in the second and fifth columns, where the "right" choice goes against peer preference, as well as against one's self-interest (left side of the figure). Altogether, hypotheses *H1a*, *H1b*, and *H1c* are validated. The voting-power effect emerged as significant in four out of six tests and was absent only when the ceiling effect applied.

Table 6 outlines the results of logistic regression estimates of voting power on the probability of voting against management. The first four columns represent estimates that incorporate observations from the first three studies, including questionnaires both containing and devoid of the element of self-interest. Columns 5 and 6 are estimates based solely on the data from Study 3 questionnaires, in which selfinterest is introduced. The voting-power effect is sustained and significant across all estimates, such that voting power enhances the probability of a negative vote, which in the case in point is the ethically sound alternative. Participants' responses regarding the reasons behind their vote invoke the responsibility that comes with being the largest shareholder and having the power to affect the outcome of the vote. It is this sense of responsibility that appears to have induced them "to do the right thing."

This finding also demonstrates that shareholders with greater voting power are more likely than their disenfranchised counterparts to vote against management. Prima facie, this outcome contradicts the results of Dressler's (2020) archival analysis of the voting behavior of institutional shareholders when it comes to decisions requiring a special majority, which show that the more powerful shareholders tend to vote in favor of management. This discrepancy may be attributable to several factors. First, an experimental setting does not allow one to replicate some of the determinants of voting behavior in the real world, for example, the long-term relationships between institutional shareholders and corporate management. Crucially, in the experiment presented here, powerful shareholders were not given the option to negotiate with management prior to casting their vote; therefore, they had to vote on the original version of the proposal, a scenario that is liable to differ from reality. Herein, however, lies the advantage of examining the voting process experimentally: the researcher is able to delimit its stages. This would not be possible by probing actual voting data.

Theoretically, we can expect the corporate voting process, whereby a proposal initiated by management is either approved or rejected by shareholders, to comprise five stages (see the schematic representation in the introduction above). In the first stage, management contacts influential shareholders with a proposed draft; in the second, the shareholders react to it, usually in private conversations; in the third stage, negotiations take place between management and shareholders, culminating, in the fourth and fifth stages, respectively, in the drafting of a final version of the proposal and a shareholder vote. Inasmuch as the first three stages are unobservable, an archival analysis is necessarily limited to the final version of the proposal and the final vote. An experimental study, however, enables one to analyze shareholders' initial reaction to management's proposals, particularly the "bad" ones, which often become the subject of debate. Accordingly, it may contribute to our understanding of the unobserved private negotiations undertaken prior to the vote. The survey described next further analyzes these unobserved stages.

The regression results in Table 5 above show that shareholders' personal characteristics have little impact on their decisions, with the exception of age: older people are more prone to make the ethically right decision. In our study, interactions between the voting-power effect and age (not reported here) show that this effect does not vary with age.

The results presented here regarding voting power partly dovetail with those obtained by Shayo and Harel (2012), who found that the tendency to vote for the ethical alternative increases with the probability of the vote being pivotal, but only among those voters who are not driven by selfinterest. We have demonstrated that this effect holds for all participants, interested and disinterested alike.

Phase 2: Survey of Institutional Investors' Employees

One limitation of the experiment outlined in the previous sections lies in the issue of its applicability to institutional investors' voting in real-life situations. The experiment is designed to simulate the position of an individual voter in a shareholder meeting. Yet, in a real-life meeting, an individual votes on behalf of an institutional investor, and the latter serves as the voice of the company's minority shareholders. It is therefore not clear if our results can be extrapolated to the voting behavior of institutional shareholders, and this puts into question their external validity.

To validate our results, and to gain insights into institutional investors' work "behind the scenes," we conducted a survey. We asked employees of institutional investors in Israel the same question as we posed to participants of the first phase of this research but made some minor adjustments

Table 7 Statistics summarizing the responses of institutional investors

	Ν	Percentage
Institution type $(N=41)$		
Pension funds	6	15%
Insurance companies	10	24%
Investment houses	16	39%
Mutual funds	4	10%
Employer/labor union- owned funds	3	7%
Hedge funds	2	5%
Assets under management $(N=41)$		
Less than NIS 100 m	4	10%
NIS 100 m-500 m	6	15%
NIS 500 m-1b	6	15%
NIS 1b–50b	15	36%
More than NIS 50b	10	24%
Average Holding Period $(N=40)$		
Short—less than 2 years	1	3%
Medium—2 to 5 years	22	55%
Long—more than 5 years	17	42%
% of actively managed assets $(N=29)$		
0–25%	6	21%
26–50%	8	28%
51–75%	9	30%
76–100%	6	21%
Individual respondent		
Sex $(N=43)$		
Male	39	91%
Female	4	9%
Position $(N=42)$		
Board of directors	1	2.5%
Senior management	5	12%
Investment committee	11	26%
Analysts	9	21%
Portfolio managers/investment managers	15	36%
Other	1	2.5%

This table reports the information about the respondents of the survey and the institutions they work for. The total number of responses we obtained is 45. Not all respondents answered all the questions

to the scenario to render it more plausible for professionals in the field. Specifically, the respondents were not told how many shareholders participated in the vote (nine in the experiment in Phase 1). Furthermore, the salary proposed for the new CEO was to be 50% higher than that of his or her predecessor. We suspected that the irregular quadruple raise cited in the experiment in Phase 1, while likely unexceptional in the eyes of a layman, would undermine the credibility of the scenario for a professional. As we anticipated a small number of respondents, we had to reduce the number of experimental groups. We dropped the peer-effect condition, but kept two voting-power conditions, with and without the element of self-interest, respectively. This left us with a total of 4 groups, as opposed to 12 in Phase 1. In addition, respondents were requested to provide detailed information as to their actual voting behavior.

Survey Design

The questionnaire (presented in Appendix B online) is composed of four sections. Section A compiles the data regarding the institution in which the respondent is employed: the type of institution,²⁸ the value of its assets under management, its investment strategy (whether active or passively managed), and its stock holding period. Part B replicates the experimental design of Phase 1, with adjustments enumerated above. To the question regarding the respondent's intended vote on the CEO nomination we added one about negotiation, to test for *H3*.

Part C targets issues that may affect the institution's investment and voting policies, for example, the firm's characteristics, and its use of proxy advisors' recommendations. These questions explore any possible correlation between investment policy and voting patterns; check the veracity of the answers against already established voting patterns; and test hypotheses *H2a–b*.

The fourth, and final, part of the survey includes statements about voting decisions and voting patterns. For each statement, the institutional investor employees were asked to indicate the frequency of the behavior it describes. These questions are also meant to test hypotheses H2a-band H3 regarding the extent to which voting patterns are a function of voting power. Some of these statements were derived from theoretical papers on strategic voting (Levit & Malenko, 2011; Maug & Rydqvist, 2009), others from the empirical findings in Dressler (2020); yet others from arguments regarding institutional investors' expected monitoring activities such as negotiation (Black, 1992). To avoid biased answers, the order of the questions was randomized. We also indicated a percentage range for every answer, to avoid a lack of uniformity in the use of lexical quantifiers. For ethical reasons, the questions that do not relate to the experimental scenario in part B were marked as optional.

In order to mitigate concerns about dishonest answers, we kept the questionnaire anonymous. Respondents who wished to receive a summary report could leave their emails, but we kept those in separate files from the questionnaires.

Due to restrictions on person-to-person meetings imposed by the Covid-19 pandemic regulations, we relied solely on an online version of the survey. We targeted persons who are directly involved in decision-making regarding the

 $^{^{28}}$ The categories of institutional investors in Israel are detailed in Table 7. We follow Hamdani et al.'s (2017) categorization.

	Group 1 No power to affect the outcome, No self-interest	Group 3 No power to affect the outcome, With self-interest
Mean vote	3.18* <i>P</i> value =0.38	3.88 P value = 0.10
	Group 2 Pivotal power to affect the outcome, No self-interest	Group 4 Pivotal power to affect the outcome, With self-interest
Mean vote	3.0***	2.91**

 Table 8
 Voting power effect, institutional survey

This table presents the votes respondents reported in Part B of the survey. The total number of responses we obtained is 45. All votes are ranked on a scale of 1–7, where 1 stands for "I would surely vote against the appointment," 4—"Not sure/I don't know," and 7—"I would surely vote in favor of the appointment." The asterisk symbols *, ** and *** stand for significance at the 10, 5, and 1% levels, respectively, in testing the hypothesis that the average equals (vs. lower than) 4. *P* values represent the test for hypotheses *H1a* and *H1c*: the voting power effect, comparing groups 1 vs. 2 and 3 vs. 4

institution's portfolio companies and are likely to take part in arrangements related to voting. Accordingly, our respondent population was restricted to employees of institutional investors holding the following job-titles: members of the board of directors, senior management (including CEO, CIO, CFO), investment managers, members of the investment committee, and analysts.

We distributed the survey over several online channels using Google Forms. First, we sent the survey to the e-mail addresses of the institutional investor employees found on lists of fund managers posted on the regulator's website. Second, we administered the survey through the LinkedIn network, as direct messages to people whose job title included any of the Hebrew words for "investment house," "pension fund," "insurance company," "mutual fund," or "VC." Third, we used private contact lists: one belonging to a contact person who worked in the financial services industry, and two others, belonging to the authors. Fourth, we recorded a lecture on institutional shareholder voting. The lecture was divided in two separate video files, with an online survey connecting them, such that the first video contained a link to the survey, which in turn contained a link to the second part of the lecture. The latter, second, link, which included the details and the results of the online experimental study discussed in Phase 1, appeared only after the submission of the survey, so as not to bias the responses. We sent the link to the first part of the lecture to a person who organizes an annual conference for institutional investors. In 2020 the conference could not take place in a physical venue because of the Covid-19 pandemic, so the lectures were distributed online to people who had previously participated in the conference on a regular basis-mainly employees of relatively small employer-owned funds (small independent funds which are not affiliated with large investment houses). Finally, we contacted the CEO of the Investment Houses Association, an umbrella organization for ten investment houses in Israel, and obtained his cooperation in distributing the survey among the member investment houses. Altogether, we sent e-mails with links to the survey directly to 265 institutional investor employees; an unknown number of other employees received the lecture or the link to the survey through a third party.

We received 45 survey forms back, some of which were only partially filled out. Table 7 reports summary statistics of the survey responses. We estimate that the respondents represent at least 62% of Israel's insurance companies and pension funds (in numbers), managing 90% of Israel's pension and insurance funds (put together, the two instruments managed by those fund managers represent 72% of long-term savings in Israel) and at least 50% of all the large investment houses, managing 60% of the provident funds (this third instrument representing 28% of long-term savings). Underrepresented in these data could be small employer-owned funds, which manage altogether almost 7% of long-term savings (mostly in pension and provident funds). We are unable to estimate the share of this percentage in the hands of the few representatives who responded to our survey.²⁹

It is possible that the online format of the survey affected the results, insofar as respondents could have paid more attention to detail or provided more comprehensive answers working with hard copies. Survey respondents were not paid for their time and effort, unlike the participants of the first phase of the research. However, since the questions pertained to their professional expertise, we believe that

²⁹ This estimation is based on the responses of participants who voluntarily answered the question tapping the identity of the institution and those who mentioned it in private conversations (therefore, it constitutes minimum numbers). The numbers for the long-term savings are taken from the Yafeh Committee report (2021); in Hebrew: https://www.gov.il/BlobFolder/news/press_0008/he/advisory-commi ttee-final-report-24-11-2021.pdf.

Table 9 Strategic voting

Diff = 0.27

Panel A: Strategic considerations				
	N (1)	Mean (2)	Mean difference by Power (3)	Mean differ- ence by AUM (4)
Strategic considerations	35	2.86***	Diff=0.23	Diff=0.35
"Counting on my vote not counting"	35	2.31***	Diff=0.85**	Diff=0.36
Vote for bad proposal for strategic reasons	35	2.2***	Diff=0.91**	Diff=0.54*
Different vote for different majority requirement	35	2.91***	Diff=0.14	Diff=0.63*
Panel B: Passive voting				
	Ν	Mean	H0: different mean by Power	H0: differ- ent mean by AUM
Consistent vote against management on compensation proposals	36	3.03***	Diff=0.31	Diff=0.56*
Consistent vote against related-party transactions involving controlling shareholders	35	4.06	Diff=0.258	Diff = -0.09
Consistent pro-management vote to keep good relations	35	2.26***	Diff=0.81**	Diff=0.57*
Consistent pro- or against-management vote on most issues	34	3.0***	Diff=0.62	Diff = 0.62
Consistent vote against management to save time and effort	36	1.92***	Diff=0.72**	Diff=0.97***
Consistent pro-management vote to save time and effort	36	2.08***	Diff=1.38***	Diff=0.71*
Purchase the proxy recommendation, but do not follow	36	2.06***	Diff = 0.28	Diff=0.89**

This Table presents the responses to part D of the questionnaire where the question was how often are the following statements true in describing your decision-making regarding voting in shareholder meetings? The possible answers are ranked on a scale of 1–7, where 1 means "almost never true (less than 10% of the votes)," 4 means "occasionally true (40–60%), and 7 stands for "almost always true (more than 90% of the votes)." Column 2 presents the mean score. Asterisk symbols present the significance in testing the null hypothesis that mean score equals 4 (the neutral answer). Column 3 presents the difference between the mean scores of the groups with pivotal power versus no power to affect the outcome of the vote, as participants randomly assigned to in part B of the survey. Column 4 presents the difference between the mean scores of the groups of large versus small institutions, according to their Assets Under Management. The asterisk symbols *, ** and *** stand for significance at the 10, 5, and 1% levels, respectively, in testing the hypothesis that the difference equals (vs. higher than) 0. Panel A focuses on strategic considerations that are taken and Panel B presents patterns related to passive voting

35

4.83***

their motivation to give correct and honest answers was not affected by the absence of remuneration.

Survey Results and Discussion

Follow the proxy's against-recommendations

Voting Against Management

As stated above, the experiment conducted in Phase 2 of our research (Section B of the survey) involved four groups, in keeping with the experimental conditions. As a consequence, the number of respondents in each group was insufficient to obtain significant results. Thus, no definitive conclusions regarding the impact of voting power upon voting behavior can be drawn on the strength of the experiment in Section B of the survey alone. However, these responses can serve as additional evidence to that obtained in the experiment in Phase 1. Moreover, the data acquired from the responses to sections C and D of the survey yielded several noteworthy patterns. In Part B, respondents were asked to indicate their voting intentions on a scale of 1 to 7, where 1 indicates

"I would definitely vote against the appointment"; 7 indicates "I would definitely vote in favor of the appointment"; and 4 indicates "not sure/do not know." The average value (under all conditions) emerged as 3.18—significantly lower than 4. Thus, the institutional investors surveyed in Phase 2 indicated that they would vote against a proposal which they judged to be bad for the company, even in the presence of self-interest. The results show differences between the treated and the control groups that support our hypothesis H1, though due to the small number of respondents, these differences are only marginally significant (see Table 8).

Diff = 0.40

Strategic Voting

Voting theory and previous empirical literature suggest that shareholders tend to vote strategically, taking into account their ability to affect the vote outcome. Strategic voting does not lend itself to direct testing, because voters are reluctant to admit to it. Our survey design, in which each respondent was designated as either a pivotal or a disenfranchised voter



Fig. 2 Distribution of survey participants' answers by voting power. This figure presents the comparison (*Z*-test) of the distribution of answers to the questions regarding voting patterns. Blue bars stand for the disenfranchised participants, who had no power to affect the outcome, while the red bars represent those with a pivotal power to

do so. The asterisk symbols *, ** and *** in each chart stand for significance of the difference between the two distributions at the 10, 5, and 1% levels, respectively. Mean difference (first no.) and std. error (second no.) are in parenthesis

prior to answering a set of in-depth questions, allows us to analyze the answers in light of the respective role. Several of the questions in the survey probe whether institutional investors take strategic considerations into account when voting at a shareholder meeting. Panel A of Table 9 summarizes the analyzation of responses to these questions. On the whole, institutional investors profess to eschew strategic considerations when voting: They deny changing their vote in accordance with the majority requirement; they deny voting against a proposal they perceive as expedient solely for utilitarian reasons; and they deny factoring into their vote choice the probability of a proposal being approved (panel A, column 2—the mean value for the responses to all four questions is significantly below 4). To test H2a, we split the responses into two groups, based on the voting power assigned to the respondents, and compared the distributions of answers in those two groups, using both T-test (Table 9, panel a, column 3) and Z test (see Fig. 2). A pattern is discernible whereby strategic voting is significantly less prevalent when the shareholder has the power to affect the outcome. Thus, hypothesis H2a is confirmed. As an alternative to voting power, we also categorized respondents according to the institution's Assets Under Management: large institutions that manage large amounts of assets usually hold significant shares of their portfolio companies, and therefore the vote of their representative usually has more weight at the company's general meeting. We classified institutions as either large (above 1B NIS in AUM) or small (below 1B NIS) based on the information the respondents provided in Part A of the questionnaire. The results are qualitatively similar (Table 9, panel a, column 4). We therefore accept *H2a*.

Passive Voting

Reliance on proxy advisory recommendations, as well as other passive patterns such as consistent managementfriendly vote, or consistent vote against managementsponsored proposals, saves time and therefore also money. Arguably, however, institutional investors that apply these strategies do not fulfil their fiduciary duty towards their clients. Yet, such an approach might be justified in situations when the shareholder is disenfranchised and cannot affect the outcome of a vote. We, therefore, hypothesized in *H2b* that voting power is positively associated with active voting and negatively with passive voting including consistent voting patterns. Panel b of Table 9 presents the mean score of responses to the questions regarding passive voting. Overall, respondents tend to disagree with the statements alleging

Panel A	o									
	Trust the board's decisic	suc	Follow the proxy tion	recommenda-	Vote with manag good relations	ement to keep	Consistent against- v and effort	ote to save time	Consistent pro-m vote to save time	anagement and effort
	Ordered Logit	OLS	Ordered Logit	SIO	Ordered Logit	SIO	Ordered Logit	STO	Ordered Logit	OLS
Power		-0.55 (-1.31)					Negative** (-2.23)	-0.68^{**} (-2.20)		-0.49* (-1.78)
AUM	Negative*** (-3.31)	-0.72 *** (-3.25)					Negative*** (-2.74)	-0.32* (-1.92)		-0.12 (-0.92)
Actively managed rate	Negative** (-2.37)		Negative* (-1.74)	-0.03** (-2.07)	Negative** (-2.11)	-0.02** (-2.35)			Negative***	-0.01^{**} (-2.47)
Holding period		0.42 (0.89)	Negative *(-1.66)	-1.42* (-1.91)				-0.06 (-0.17)		0.1 (0.36)
CHI ² /F test	***	* *	×	× *	**	*	***	、 、 *	* *	× *
(Pseudo/Adjusted) R ²	0.27	0.27	0.08	0.17	0.08	0.17	0.15	0.20	0.20	0.38
Panel B										
		Strate	egic vote for (bad pro	oposal)	D	ifferent vote for d	lifferent majority requir	rement	Strategic con	siderations
Ordered logit										
AUM		0~			Ž U	egative** - 2.55)			Negative*** (-2.62)	
Actively managed rate		Nega (-2	ttive** 53)		ž U	egative - 1.04)			0~	
Holding period		0~			2	0			0~	
Investment houses		0~			ł	0			Negative* (-1.92)	
Pension funds		0~			2	0			0~	
Mutual funds		Nega (-2.1	ıti ve** 04)		ž U	egative*** - 2.81)			Negative*** (-2.84)	
Employer/labor union-owr	ned funds	0~			ł	0			Negative** (-2.01)	
Hedge funds		0~			ž U	egative** - 2.13)			Negative** (-2.02)	
CHI ² /F test		***			*	*			* *	
(Pseudo/Adjusted) R ²		0.54			0.	29			0.22	
Ordered logistic and O true" (more than 90% c OLS) are in parenthesii 1–5, where I stands for 1–3, when I stands for "insurance company." A	LS regressions. Depend of the votes). The asteris . "Power" is a dummy r "less than NIS 100 m, "short term" (up to 2 ye All other institution type:	ent variables al k symbols *, *** variable, which and 5 stands i ars), and 3 stan s' coefficients a	re ordered on a sc * and *** stand fc + equals 1 if the re for "more than NI dds for "long term" tre relative to this t	ale of 1–7, wh rr significance spondent was S 50b." Active (more than 5	tere 1 stands for at the 10, 5, and assigned pivotal sly managed rate years). In panel 1	"almost never 1% levels, rest voting power i ranges betwee B we add the in	true" (less than 10% bectively. Z statistics n part B of the surv n 0 and 100. Holdin nstitution type to the	of the votes) an (in ordered logi by. AUM is an or g period is an or independent var	ld 7 stands for "al t regressions) or t rdered variable on rdered variable on rdered variable on iables. The omitte	most always statistics (in the scale of the scale of d variable is

passive voting: The mean scores are significantly lower than 4, attesting to disagreement (column 2). The only exception is the score that represents following a proxy recommendation to vote against a proposal: it significantly exceeds 4. This general pattern could indicate that defying a publicized negative proxy recommendation puts the institutional voter in an awkward position vis-à-vis their client. With regard to the statements alleging consistent or passive voting patterns, a significant difference emerged in participants' responses both depending on their voting-power group status (Column 3) and based on Assets Under Management index (Column 4). These results are consistent with *H2b*, which we, therefore, accept.³⁰

The answers of respondents with pivotal voting power were distributed around significantly lower mean scores (see Fig. 2) than those in the disenfranchised group: they are less likely to vote consistently, to follow a proxy recommendation, or to trust the board without further investigation. This is in keeping with our main hypothesis that voting power compels investors to do the right thing—in the case in point, to invest resources in analyzing every proposal on its merit and to avoid consistent voting patterns, *inter alia*.

Table 10 outlines the results of regression estimates of voting power and institutional investor characteristics on their answers to the statements on voting decisions in Part D. We employed both ordered logistic and OLS regressions. The dependent variables' distribution ranges between 1 and 7, where 1 stands for "almost never true" and 7-for "almost always true." The independent variable "power" is a dummy variable; it equals 1 if the respondent was assigned pivotal power in part B of the survey. We added this variable to examine its correlation with strategic/passive voting. As mentioned above, we find that the power to affect the results is negatively correlated with the tendency to vote consistently either for or against certain proposals. Similarly, we find a negative correlation between voting power and a policy to consistently follow the board of directors' recommendations. We conclude that, even though the fiduciary duty institutional investors owe their clients, in and of itself, requires them to take initiative and uphold the interests of these clients, the power to affect the results of a vote serves as additional impetus to responsible behavior and better monitoring activity. Another significant pattern observed in the responses of participating institutional shareholders is related to activism. Shareholder activism appears to depend on the proportion of an institution's portfolio which is actively managed, as opposed to passively tracking a given index. According to the survey, the higher the rate of actively managed assets in an institution's portfolio, the lower the tendency for its employees to agree with the statements alleging strategic voting or passive and management-friendly voting. Interestingly, no opposite pattern surfaced in respect of voting consistently against management, indicating that institutions heavily engaged in active investment management are keenly aware of their monitoring role. These results align with the findings by Heath et al. (2021) according to which index (passive) funds are less likely to vote against firm management on contentious governance issues, and with those by Brav et al. (2021), who document a more pro-dissident voting by active funds.

In panel B we add another independent variable, the institution type, to further understand whether different types of institutions differ in their voting patterns. Overall, it appears that mutual funds and hedge funds are less tolerant of strategic voting than insurance companies.

What Other Considerations are Taken into Account in the Voting Process?

Most institutional investors in our survey professed that their voting decisions are not influenced by connections with management; yet 21% admitted to taking this consideration into account (scores 5-7 on the scale). This proportion is by no means negligible, and so requires further examination. Using a Z test, we compared the distribution of answers to this question in the two groups-empowered vs. disenfranchised-divided based on the criterion as per part B of the survey. The respondents in the empowered group tended to disagree with the assertion that connections with management is a factor in their voting decision: the mean score stood at 2.78, which is significantly lower than 4. The mean score in the disenfranchised group, on the other hand, was much higher than that, at 3.93, almost on a par with the neutral 4 (the difference is statistically significant, *p-value* < 0.001).

Participating institutional investors were also asked directly whether their decision in any given case would be influenced if they had a different voting power. Overall, 45% were not sure if their voting decision would be different, yielding an average score of 4 exactly (= not sure, on a scale of 1–7). The percentage of respondents who indicated that being pivotal to the outcome of a vote would affect their decision stood at 29% (scores 5–7 on the scale), while 26% reported that voting power did not make any difference (scores 1–3). Recall that the experiment in Phase 1 revealed a significant voting-power effect. Possibly, it tapered off in Part C of the survey due to the phrasing of the question: the respondents may have not been sincere in answering such a direct, albeit hypothetical, question, for a variety of reasons, concern for their reputation among them.

Surprisingly, the respondents indicated that the relative share of the stock of a company in an institutional investor's portfolio (mean score = 4.06), and the investor's holdings in

³⁰ Based on Z test of answers to questions D1, D4, D6, D18, D19.

Panel A: Direct question on	nego	tiating th	e hypothetic pro	posal for CEO nomination		
	N (1)	Mean (2)	H0: mean $= 4$ (3)	% of score 5–7 (4)	Mean difference by power (5)	Mean difference by AUM (6)
Participants' vote	44	5.0	***	70.5%	0.19	0.25
Panel B: Does negotiation a	affect 1	the vote?	,			
	N (1)	Mean (2)	H0: mean $= 4$ (3)	% of score 5–7 (4)	Mean difference by answers to Q_C8 (5)	Mean difference by insti- tution type (6)
My absence from or pres- ence in the negotiation will affect my vote	38	4.61	***	55.3%	0.89*	1.09**
Panel C: Private engagemen	nts					
	N (1)	Mean (2)	H0: mean = 4 (3)	Mean difference by active/ passive fund management (4)	Mean difference by answers to Q C8 (5)	Mean difference by sig- nificant shareholders (6)
Discuss the proposal with other institutional inves- tors	35	3.46	**	-0.08	- 0.06	1.67***
Discuss prospective vote with management	34	4.5	**	0.91*	0.91	1.28**
Try to negotiate proposals with management	34	4.32	*	0.10	0.41	0.59
Vote against after engage- ment with management resulted in conflicting opinions	35	4.83	***	0.28	-0.63	-0.53

Panel A reports results on the question regarding negotiating the CEO nomination in the hypothetical scenario presented in part B of the survey. The answers are ranked on a scale of 1-7, where 1 stands for "There is a very low probability that I would negotiate the proposal (less than 10%)," 4 stands for "I might negotiate the proposal (40-60%)," and 7 stands for "There is a very high probability that I would negotiate the proposal (90–100%)." Column (3) reports the results of a *t*-test of the null hypothesis that each mean score is equal to 4 (the middle of the scale). Column (4) shows the percentage of respondents that reported high probability of negotiating the proposal. Column (5) shows the difference between the mean score of the two groups defined by their voting power-those that were pivotal and those that had no power to affect the vote outcome. Column (6) shows the difference between the mean score of the two groups of respondents defined by their Assets Under Management—either above or under 1 billion NIS. Panel B reports results on Part C of the questionnaire, where the questions was "how likely you are to consider the following factor in your voting decision?" Answers are ranked on a scale of 1: "extremely unlikely to 7: "extremely likely." Column (5) shows the difference between the mean score of the two groups defined by their answers to factor C8 (also in part C of the questionnaire): "my ability to affect the vote results." Group 1 includes all respondents that indicated a high likelihood of factoring in voting power in their voting decision (answers scoring 5-7), and Group 2 included the respondents that indicated a low likelihood (answers scoring 1-4). Column (6) shows the difference between the mean score of the two groups defined by the institution type: large institutions—insurance companies and investment houses belong to one group, and relatively small institutions that manage mutual funds or hedge funds and employee-owned funds belong to the second group. Panel C reports results from Part D of the questionnaire, where the question was How often does your decision-making on voting in shareholder meetings align with the following statements? The answers are ranked on a scale of 1-7, where 1 stands for "almost never" (less than 10% of the votes), 4 stands for "occasionally" (40-60%), and 7 stands for "almost always" (more than 90% of the votes). In Column (3), the asterisk symbols *, ** and *** stand for significance at the 10, 5, and 1% levels, respectively. In all the columns that show differences, the symbols indicate the results of the *t-test* of the null hypothesis that the difference equals zero

that company's bonds (mean score = 4.03) did not influence their voting decisions to any significant degree. In addition, the survey revealed that institutional investors' decisions are impacted more by a leading local proxy advisor than foreign proxy advisors. Other factors established as salient in institutional investors' votes were their assessment of the quality of a portfolio company's risk management, as well as its corporate governance and accounting methods. Firm size, however, did not emerge as a significant factor.

Overall, despite the methodological limitations, the results of the Survey in Phase 2 are consistent with the studies conducted in Phase 1 and with our H1a hypothesis, demonstrating that voting decisions made by institutional investors are subject to the voting-power effect.

Negotiations Behind the Scenes

As already stated, the results of Dressler (2020), based on archival data, and those of the experiment in Phase 1 of this research are mutually contradictory. We attribute this discrepancy to the data used, and more specifically, to the advantages of our experimental design. An experiment allows to factor in the unobserved stages of the process wherein an institutional investor reacts to a managementsponsored proposal. Archival data, on the other hand, captures only the end stage of this process—the actual vote. As demonstrated by McCahery et al. (2016), institutional shareholders do engage with management and are generally expected to negotiate the terms of proposals which they find objectionable. If the shareholder is strong enough to affect the result of a vote, management tends to take heed, so as to avoid the defeat of the proposal at the vote (Fos & Tsoutsoura, 2014). We summarize this rationale in hypothesis H3.

In the survey in Phase 2, we asked institutional investors whether and how they engaged in negotiating the terms of management-sponsored proposals prior to their being brought for shareholders' approval. The majority (59%) of the respondents indicated that they regularly contact management prior to the general meeting to discuss their vote choice. The survey results on this issue (presented in Table 11) have yielded two findings. First, if they consider the proposed transaction to be "bad," most institutional investors will try to negotiate its terms: 67% ranked the probability that they would negotiate the scenario presented in Part B between "fair" and "very high." The average rating, on a scale of 1 to 7, stood at 4.92 significantly higher than the non-committal 4, which indicates "I might negotiate". Second, an institutional investor's vote would depend, in part, on whether they were involved in the pre-vote negotiations or whether the negotiations took place between the management and other shareholders.

Taken together, these results go far to explain the opposite direction of the correlations between voting power and voting behavior found in the experimental study in Phase 1 and in Dressler's (2020) *ex-post* archival study based on actual votes. Both the experiment in Phase 1 and the survey in Phase 2 have demonstrated that, even in the presence of self-interest, shareholders are inclined to oppose an expropriating transaction proposed by management. However, their dissent is usually voiced prior to the vote, behind the scenes—the time and setting to which an archival study is blind. The shareholders' next step depends on their voting power. Strong shareholders will try to negotiate terms and, once agreement has been reached, will vote in favor of the proposal (as shown in Dressler, 2020). Small, disenfranchised shareholders, who did not take part in, and in all probability were not even aware of, the negotiations, vote against. However, our results show no significant difference in the willingness to negotiate with management between the empowered and the disenfranchised participants, thus invalidating *H3*. To take count of this result, we suggest that it is management that decide whom to negotiate with, and unsurprisingly choose for this purpose shareholders with enough power to affect the outcome.

We further investigate the issue of pre-vote negotiation by comparing the answers of the survey participants from large versus small institutions. We determine the size of an institution based on Assets Under Management, and also according to participants' answers to the items in part A. These items relate to the institution's active versus passive management of funds and its policy regarding becoming a significant shareholder (whose holdings in the company are 5% or more). With reference to the institution's size, we compare participants' ranking of the items on discussing proposals with other institutional investors and with management. Respondents who work for an institution that avoids becoming a significant shareholder tend to disagree with those statements-meaning they do not usually discuss proposals with other shareholders or with management. All other respondents indicated that they do normally discuss proposals with management (mean = 4.84, significantly higher than 4). As for discussing their contemplated vote with their peers, participants' scores were close to 4, indicating that they were non-committal on this issue. This result suggests that large investors, usually empowered through their considerable holdings in their portfolio companies, are aware of their voting power, as well as of their negotiation power. On the other hand, institutions that customarily do not exert much effect on vote outcomes tend to refrain from active monitoring. In his paper "Agents Watching Agents," Black (1992) expects the institutions to (1) cooperate with one another in their monitoring activities and (2) weigh out the long-term impact of their actions, and act accordingly, in order to gain reputation. The results presented in Table 11 partly align with Black's expectations: no substantive evidence suggests that institutions cooperate with one another in such negotiations, but all institutions, regardless of their voting power, try to negotiate with management. We interpret this finding as an indication of long-term thinking: Whether those institutions participate in negotiations to gain good reputation, or whether they do so in the name of long-term governance, even if their current position prevents them from affecting the proposal up for immediate vote, this behavior is in keeping with the monitoring role they are expected to fulfil.

Conclusions

This study demonstrates that voting power may induce institutional shareholders to vote against management to further the interests of the company. This voting-power effect endures in the face of the peer effect (when all other shareholders voted otherwise), as well as in the presence of selfinterest. We also contend that institutional investors are less likely to vote strategically or passively if their vote is decisive. At the same time, institutions will try to negotiate the terms of a proposal with management prior to the vote even if their voting power is insufficient to affect the outcome. All institutions attempt such negotiations, irrespective of their size, share in the company's holdings, or holding period. This is a sign of long-term monitoring and can therefore be viewed as positive. Though obtained in Israel, we believe that the results of our survey are valid across many countries, especially in markets where ownership is concentrated and dominated by controlling shareholders. Furthermore, while the impact on the vote of pragmatic economic concerns could not be ruled out altogether, we find that ethical considerations seem to be at work not only when one is unlikely to affect the outcome ("counting on my vote not counting"), but particularly when one does possess the power to do so.

Broadly speaking, our study adds to the literature by taking a close look at the role of voting power in voting decision-making, and by adducing evidence that voting power mitigates factors that have been found to affect the voting of institutional shareholders. In addition to the choice between self-serving and ethical behavior, which has been explored in the literature, we have examined the choice between conveniently and complaisantly supporting corporate management on the one hand, and defying management by opting for "the right thing," on the other. Controlling for selfinterest, peer effects, and economic stakes has allowed us to draw conclusions as to the impact of voting power above and beyond these factors.

All in all, in light of the findings presented here, there are good reasons to believe that, if an institutional investor's vote in a shareholder meeting is swayed by ethically unsound considerations, the voting-power effect may operate (*ceteris paribus*) as a moderating factor mitigating self-serving mentality. Our results allow for some optimism in the context of corporate governance. With regards to the impact of empowerment on voting behavior, we now have stronger grounds to believe that agency may prove salient in preventing minority expropriation in public companies.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s10551-022-05108-y.

Acknowledgements We acknowledge helpful comments and suggestions by two anonymous referees and the responsible editor (Hao

Deringer

Liang). Additionally, we are grateful for comments on previous versions made by Shoham Choshen-Hillel, Yaniv Grinstein, Christopher Ittner, Eugene Kandel, Zacharias Sautner, Benjamin Segal, Ori Putterman and Yishay Yafeh. We also thank the participants of the Retreat by the I-core: The Center for Empirical Studies of Decision Making and the Law, as well as the participants of the finance Ph.D. seminar at the Wharton School, the Finance-Accounting Seminar at Tel Aviv University, The Hebrew University of Jerusalem, and the Summer Accounting Seminar at the Wharton School, University of Pennsylvania, 12th Annual Meeting of the Society for Experimental Finance, 2021 and The International Conference on Social Choice and Voting Theory, 2021 for helpful comments. We thank Nimrod Sapir (IHAI) for his help in distributing the survey. Financial support by the Bogen fellowship (Dressler), the Kruger Center at the Hebrew University (Dressler), and the Eli Hurvitz Institute for Strategic Management is gratefully acknowledged. The full data frame can be downloaded from the link reported here. We obtained separate Institutional Review Board (IRB) approval for each of the two: the experiment and the survey.

References

- Ashraf, R., Narayanan, J., & Ryan, H. E. (2012). Do pension-related business ties influence mutual fund proxy voting? Evidence from shareholder proposals on executive compensation. *Journal of Financial and Quantitative Analysis*, 47, 567–588. https://doi. org/10.1017/S0022109012000014
- Bezalel, J., Mugerman, Y., & Winter, E. (2021). Meaning and gender differences. *Journal of Behavioral and Experimental Economics*, 95, 101757. https://doi.org/10.1016/j.socec.2021.101757
- Black, B. (1992). Agents watching agents: The promise of institutional investor voice. UCLA Law Review, 39, 811–893.
- Branzei, O., Frooman, J., Mcknight, B., & Zietsma, C. (2018). What good does doing good do? The effect of bond rating analysts' corporate bias on investor reactions to changes in social responsibility. *Journal of Business Ethics*, 148, 183–203. https://doi.org/ 10.1007/s10551-016-3357-6
- Brav, A., Jiang, W., Li, T., & Pinnington, J. (2021). Picking friends before picking (proxy) fights: How mutual fund voting shapes proxy contests. Columbia Business School research paper no. 18-16. European Corporate Governance Institute (ECGI)— Finance working paper No. 601/2019. Retrieved from https://ssrn. com/abstract=3101473.
- Cai, J., Garner, J., & Walkling, R. (2009). Electing directors. *The Journal of Finance*, 64, 2389–2421. https://doi.org/10.1111/j.1540-6261.2009.01504.x
- Chandler, D., & Kapelner, A. (2013). Breaking monotony with meaning: Motivation in crowdsourcing markets. *Journal of Economic Behavior & Organization*, 90, 123–133. https://doi.org/10.1016/j. jebo.2013.03.003
- Choshen-Hillel, S., & Yaniv, I. (2011). Agency and the construction of social preference: Between inequality aversion and prosocial behavior. *Journal of Personality and Social Psychology*, 101(6), 1253–1261. https://doi.org/10.1037/a0024557
- Clark, C. E., & Van Buren, H. J. (2013). Compound conflicts of interest in the US proxy system. *Journal of Business Ethics*, 116, 355– 371. https://doi.org/10.1007/s10551-012-1460-x
- Cox, P., Brammer, S., & Millington, A. (2004). An empirical examination of institutional investor preferences for corporate social performance. *Journal of Business Ethics*, 52, 27–43. https://doi. org/10.1023/B:BUSI.0000033105.77051.9d
- Cvijanovic, D., Dasgupta, A., & Zachariadis, K. E. (2016). Ties that bind: How business connections affect mutual fund activism. *The Journal of Finance*, 71(6), 2933–2966.

- Daly, T. M., & Nataraajan, R. (2015). Swapping bricks for clicks: Crowdsourcing longitudinal data on Amazon Turk. *Journal of Business Research*, 68(12), 2603–2609.
- Davis, G. F., & Kim, E. H. (2007). Business ties and proxy voting by mutual funds. *Journal of Financial Economics*, 85, 552–570.
- Dressler, E. (2020). Voice and power: Do institutional shareholders make use of their voting power? *Journal of Corporate Finance*, 65, 101716.
- Farrell, A. M., Grenier, J. H., & Leiby, J. (2017). Scoundrels or stars? Theory and evidence on the quality of workers in online labor markets. *The Accounting Review*, 92(1), 93–114.
- Felsenthal, D., & Machover, M. (2004). A priori voting power: What is it all about? *Political Studies Review*, 2(1), 1–23. https://doi.org/ 10.1111/j.1478-9299.2004.00001.x
- Ferejohn, J. A., & Fiorina, M. P. (1974). The paradox of not voting: A decision theoretic analysis. *American Political Science Review*, 68, 525–536.
- Fos, V., & Tsoutsoura, M. (2014). Shareholder democracy in play: Career consequences of proxy contents. *Journal of Financial Economics*, 114, 316–340.
- Fried, J. M., Kamar, E., & Yafeh, Y. (2020). The effect of minority veto rights on controller pay tunneling. *Journal of Financial Economics*, 138(3), 777–788. https://doi.org/10.1016/j.jfineco.2020.06. 015
- Ginzburg, B., Guerra, J. A., & Lekfuangfu, W. N. (2022). Counting on my vote not counting: Expressive voting in committees. *Journal* of Public Economics, 205(401), 104555.
- Gonzalez, M., Modernell, R., & Paris, E. (2006). Herding behaviour inside the board: An experimental approach. Corporate Governance: An International Review, 14(5), 388–405. https://doi.org/ 10.1111/j.1467-8683.2006.00513.x
- Gutiérrez, M., & Sáez Lacave, M. (2018). Strong shareholders, weak outside investors. *Journal of Corporate Law Studies*, 18(2), 277– 309. https://doi.org/10.1080/14735970.2017.1423160
- Hamlin, A., & Jennings, C. (2011). Expressive political behaviour: Foundations, scope and implications. *British Journal of Political Science*, 41(3), 645–670.
- Hamdani, A., & Yafeh, Y. (2013). Institutional investors as minority shareholders. *Review of Finance*, 17(2), 691–725.
- Hamdani, A., Kandel, E., Mugerman, Y., & Yafeh, Y. (2017). Incentive fees and competition in pension funds: Evidence from a regulatory experiment. *Journal of Law, Finance and Accounting*, 2, 49–86. https://doi.org/10.1561/108.00000015
- Heath, D., Macciocchi, D., Michaely, R., & Ringgerberg, M. C. (2021). Do index funds monitor? *Review of Financial Studies*, 35(1), 91–131.
- Horton, J. J., Rand, D. G., & Zeckhauser, R. J. (2011). The online laboratory: Conducting experiments in a real labor market. *Experimental Economics*, 14(3), 399–425.
- Hurwitz, A., Mitchell, O. S., & Sade, O. (2021). Longevity perceptions and saving decisions during the COVID-19 outbreak: An experimental investigation. AEA Papers and Proceedings, 111, 297–301.
- Iliev, P., & Lowry, M. (2015). Are mutual funds active voters? *The Review of Financial Studies*, 28(2), 446–485.
- Kachelmeier, S. J., Rimkus, D., Schmidt, J. J., & Valentine, K. (2020). The forewarning effect of critical audit matter disclosures involving measurement uncertainty. *Contemporary Accounting Research*, 37(4), 2186–2212.
- Kamenica, E., & Brad, L. E. (2014). Voters, dictators, and peons: Expressive voting and pivotality. *Public Choice*, 159, 159–176.
- Lauterbach, B., & Mugerman, Y. (2020). The effect of institutional investors' voice on the terms and outcomes of freeze-out tender offers. *Quarterly Journal of Finance*, 10(1), 1–33. https://doi.org/ 10.1142/S2010139220500020

- Levit, D., & Malenko, N. (2011). Nonbinding voting for shareholder proposals. *The Journal of Finance*, 66, 1579–1614.
- Libby, R., & Rennekamp, K. (2012). Self-serving attribution bias, overconfidence, and the issuance of management forecasts. *Journal of Accounting Research*, 50(1), 197–231.
- Logsdon, J. M., & Van Buren, H. J. (2009). Beyond the proxy vote: Dialogues between shareholder activists and corporations. *Journal of Business Ethics*, 87, 353–365.
- Ma, S., & Xiong, Y. (2021). Information bias in the proxy advisory market. *The Review of Corporate Finance Studies*, 10, 82–135.
- Malenko, N., & Shen, Y. (2016). The role of proxy advisory firms: Evidence from a regression-discontinuity design. *The Review of Financial Studies*, 29(12), 3394–3427.
- Malenko, A., Malenko, N., & Spatt, C. S. (2021). Creating controversy in proxy voting advice. ECGI working paper series in finance. No. 772/2021.
- Matvos, G., & Ostrovsky, M. (2010). Heterogeneity and peer effects in mutual fund proxy voting. *Journal of Financial Economics*, 98(1), 90–112.
- Maug, E., & Rydqvist, K. (2009). Do shareholders vote strategically? Voting behavior, proposal screening, and majority rules. *Review* of Finance, 13(1), 47–79.
- McCahery, J., Sautner, Z., & Starks, L. (2016). Behind the scenes: The corporate governance preferences of institutional investors. *The Journal of Finance*, 71, 2905–2932.
- Michaely, R., Ordonez-Calafi, G., & Rubio, S. (2021). ES votes that matter. European Corporate Governance Institute—finance working paper no. 774/2021. Retrieved from https://ssrn.com/abstract= 3884917.
- Mugerman, Y., Sade, O., & Shayo, M. (2014). Long term savings decisions: Financial reform, peer effects and ethnicity. *Journal of Economic Behavior & Organization*, 106, 235–253. https://doi. org/10.1016/j.jebo.2014.07.002
- Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on amazon mechanical turk. *Judgment and Decision Making*, 5(5), 411–419.
- Peer, E., Brandimarte, L., Samat, S., & Acquisti, A. (2017). Beyond the Turk: Alternative platforms for crowdsourcing behavioral research. *Journal of Experimental Social Psychology*, 70, 153– 163. https://doi.org/10.1016/j.jesp.2017.01.006
- Picou, A., & Rubach, M. J. (2006). Does good governance matter to institutional investors? Evidence from the enactment of corporate governance guidelines. *Journal of Business Ethics*, 65, 55–67.
- Schmidt, G. B., & Jettinghoff, W. M. (2016). Using amazon mechanical turk and other compensated crowdsourcing sites. *Business Horizons*, 59(4), 391–400.
- Shayo, M. (2009). A model of social identity with an application to political economy: Nation, class, and redistribution. *American Political Science Review*, 103(2), 147–174. https://doi.org/10. 1017/S0003055409090194
- Shayo, M., & Harel, A. (2012). Non-consequentialist voting. Journal of Economic Behavior & Organization, 81, 299–313. https://doi. org/10.1016/j.jebo.2011.10.021
- Shen, X., Lee, M. K. O., & Cheung, C. M. K. (2014). Exploring online social behavior in crowdsourcing communities: A relationship management perspective. *Computers in Human Behavior*, 40, 144–151.
- Yafeh, Y. (2021) Advisory committee to the Capital markets, Insurance and Savings Authority commissioner, on direct expenses, final report. Retrieved from https://www.gov.il/BlobFolder/news/ press_0008/he/advisory-committee-final-report-24-11-2021.pdf. (in Hebrew)
- Yin, X., Chen, S., Li, D., & Zhang, F. (2021). Social norms for fairness and board voting behavior: An experimental investigation.

Corporate Governance International Review, 29, 110–133. https://doi.org/10.1111/corg.12353

Zamir, E., & Sulitzeanu-Kenan, R. (2018). Explaining self-interested behavior of public-spirited policymakers. *Public Administration Review*, 78, 579–592. **Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.