THE MECHANISMS OF VOTING EFFICIENCY

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Abstract

In the wake of the financial crisis, shareholders are increasingly relied upon to monitor directors. But while much has been written about directors' flawed judgments, remarkably little is known about shareholders' ability to make accurate judgments. What determines whether shareholders make the right decision when asked to vote on, say, a merger? This paper takes a novel approach to this question by drawing an analogy between corporate voting and another system to aggregate information on estimated values: stock trading.

Using insights on stock market efficiency, the paper makes three contributions to our understanding of voting efficiency. First, the paper identifies four key mechanisms of voting efficiency: (1) informed voting, which implies that shareholders have some information to base their voting decision on; (2) rational voting, which implies that such information is processed in a rational, unbiased way; (3) independent voting, which implies that each shareholder arrives at a judgment by making use of his or her personal cognitive skills, and (4) sincere voting, which implies that shareholders vote with a view to furthering the common interest of maximizing shareholder value rather than their own private interest. The paper explores the operation of each mechanism, and demonstrates that the mechanisms interact in unexpected ways.

Second, the paper shows that share trading, proxy solicitation and vote buying can usefully be viewed as arbitrage techniques that reallocate voting power in the hands of shareholders with superior information and processing skills, and with appropriate incentives. By reducing information asymmetry, arbitrage techniques potentially play an important role in improving voting efficiency. In practice, however, they are subject to cost constraints as well as legal constraints. The limits of voting arbitrage are significant, and affect voting efficiency much in the same way as limits of securities arbitrage affect market efficiency.

Third and finally, the paper analyzes two issues that are currently being studied by the U.S. Securities Exchange Commission and policymakers around the world: voting without corresponding financial interest ('empty voting') and the major influence of proxy advisers. By showing that these issues each involve a trade off between the various mechanisms of voting efficiency, their costs and benefits are brought into sharper focus. Several policy options are then presented to mitigate the costs while fostering the benefits.

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'The shareholders have no clue...'

Angelo Mozillo, CEO, Countrywide Financial Corp.[1]

1. Introduction

When stock markets are efficient, it becomes harder for management to obtain equity financing for a proposed acquisition as the marginal value of the acquisition decreases. In a similar vein, when corporate voting is efficient, it will become harder for management to obtain shareholder approval for a proposed acquisition as the marginal value of the acquisition decreases. Thus, both market efficiency and voting efficiency are of critical importance for the efficient allocation of resources in the economy. Why, then, have finance and legal scholars devoted such tremendous intellectual efforts to examining market efficiency and so little to examining voting efficiency?

One explanation is that most empirical studies of market efficiency test a straightforward hypothesis: if markets are efficient, it is impossible to consistently outperform the market. The early evidence indicated that this was indeed the case, a remarkable finding that motivated researchers to come up with explanations.[2] Among them Ronald Gilson and Reinier Kraakman, whose seminal paper *The Mechanisms of Market Efficiency* revealed how the market aggregates information.[3] The subsequent finding that markets aren't all that efficient required its own explanations. These were provided by behavioral finance research, which showed that investors have bounded rationality and that there are limits to arbitrage.[4] As a result of these scholarly efforts, we now have a nuanced view of market efficiency.

By contrast, there appears to be no equally straightforward hypothesis that can be tested to study voting efficiency. Indeed, the debate has been largely theoretical, and limited in scope. To the extent Milton Friedman's characterization of shareholders as 'owners' of the firm left room for questioning the efficiency of voting, the debate pretty much seems to have been silenced by Frank Easterbrook and Daniel Fischel's contractarian argument that because shareholders are the residual claimants of the firm they have the appropriate incentives to make discretionary decisions.[5] But surely incentives alone do not suffice. Whether shareholders make the right decisions, such as rejecting a proposed merger if the marginal value is too low, is ultimately an empirical question.

The question of whether shareholders make the right decisions has perhaps never been more important. In the wake of the financial crisis, policymakers across the

globe are rethinking the role of shareholders. In the US, it is felt that shareholders lacked the means to intervene in portfolio companies. Accordingly, their powers have recently been expanded in the area of executive compensation, and may soon be expanded in other areas.[6] In the UK, where shareholders already had broad powers, it is felt they were merely slow to act, and shareholders are called upon to engage with portfolio companies.[7] The academic debate, meanwhile, is focused on the trade off between enabling shareholder monitoring to reduce agency costs and preserving managerial discretion to run the business.[8] Thus, both policymakers and academics are ignoring the preliminary question of whether shareholders are capable of making the right decisions. The aim of this paper is to make some progress on this question, taking into account recent advances in law and finance.

The fundamental insight driving the paper is that investment decisions and voting decisions are similar in the sense that both are driven by an investor's belief as to the net present value of an asset. In the case of investment decisions that asset is the share, which represents a pro rata entitlement to the firm's future cash flows. In the case of voting decisions the asset could be a proposed acquisition, which may be characterized as a real option. In each case, by executing his decision, the investor reveals information underlying his beliefs. In the case of an investment decision, this information is aggregated through the market system, and in the case of a voting decision it is aggregated through the voting system.

The notion that the *market* is a system for information aggregation can be traced to Hayek, who stressed the importance of utilizing knowledge dispersed among people and argued that we 'must look at the price system as … a mechanism for communicating information if we want to understand its real function.'[9] Finance scholars, of course, have done precisely this. Sanford Grossman, for one, demonstrated that the competitive system aggregates all the market's information in such a way that the equilibrium price summarizes all the information in the market.[10]

The notion that voting, too, is a system for information aggregation can be traced to eighteenth century French philosopher Marquis de Condorcet. His Jury Theorem holds that where there are a number of voters who must decide on two alternatives, one of which is correct and the other incorrect, and the probability that any given voter will vote for the correct alternative is greater than 0.5 (i.e., that such voter is more likely to be right than wrong), then the probability that a majority vote will select the correct alternative approaches 1 as the number of voters gets larger.[11] Moreover, the majority will be more likely to vote for the correct alternative than any individual voter.[12] The Jury Theorem serves as a theoretical foundation for two intriguing recent books, James Surowiecki's *The Wisdom of the Crowds* and Cass Sunstein's *Infotopia: How Many Minds Produce Knowledge*, both of which

vividly describe the variety of contexts in which crowds display remarkable wisdom – from football prediction markets to Wikipedia.[13]

Meanwhile, a growing number of scholars refer to the Jury Theorem as a theoretical foundation for *corporate voting*.[14] The basic proposition reads something like this: in a choice between two alternatives (e.g., the firm merges or not), assuming that shareholders vote for the correct option with probability greater than 0.5, then, as the number of shareholders increases, the probability that a majority vote taken at the shareholders' meeting will select the correct (i.e. value maximizing) alternative tends toward certainty.[15]

This paper moves beyond mere references to the Jury Theorem and toward a comprehensive understanding of the determinants of shareholders' ability to make the right decisions as a group. Adrian Vermeule justly notes that the Jury Theorem rests on fragile mechanisms that apply only under narrow conditions.[16] As a first step, we need to identify these conditions and determine whether they hold given what we know about how investors make decisions in real life. Fortunately, finance research has already taught us a lot about how investors make investment decisions and how these decisions impact market efficiency. We can make great progress by using these insights to assess how investors make *voting* decisions and how these decisions impact voting efficiency. As a second step, we need to expand our view by exploring other models of crowd wisdom than the Jury Theorem. Taking these two analytical steps provides us with a taxonomy of what might be referred to as *the mechanisms of voting efficiency*.

To be sure, even if we look at both the market and voting as systems for information aggregation, differences remain. But a comparative analysis nevertheless yields valuable insights; indeed, this paper is not the first to link the two systems. Sunstein offers a 'Condorcetian interpretation' of Hayek, arguing that '[p]recisely because many people are making purchasing decisions, their aggregate judgments are highly likely to be correct, at least if most purchasers have relevant information.'[17] Niall Ferguson, in his book *The Ascent of Money*, puts it quite clearly when he states that '[i]n effect, stock markets hold hourly referendums on the companies whose shares are traded there: on the quality of their management, on the appeal of their products, on the prospects of their principal markets.'[18]

The rest of the paper is structured as follows. Part 2 offers a working definition of voting efficiency, according to which voting is deemed efficient if it leads to an outcome that maximizes shareholder value. Part 3 represents the core of the paper and identifies and explores four key mechanisms of voting efficiency, or elements that lead to – and limit – voting efficiency.[19] The first is *informed voting*:

shareholders need to have at least some information to ensure that they are more likely to be right than wrong. Whereas prior research has focused almost exclusively on this mechanism, it merely forms the starting point of our inquiry. The second is *rational voting*: the possession of information will only increase the probability that shareholders vote for the correct option if they process such information rationally. As we will see, some of the cognitive biases that have been found to affect shareholders' investment decisions may equally affect their voting decisions. The third is *independent voting*: to come to a collective judgment that is more accurate than the average individual judgment, each shareholder needs to independently arrive at a judgment on which option maximizes shareholder value by making use of his or her personal cognitive skills. The fourth is *sincere voting*: shareholders need to vote in accordance with that judgment. When shareholders have heterogeneous preferences and some vote with a view to maximizing their private interests rather than their pro-rata share of the firm's future cash flows, the probability that a majority of the shares is voted for the correct option decreases dramatically.

Even if the initial distribution of information, skills and preferences among shareholders is such that a majority of the shares risks being voted in favor of the incorrect option, arbitrage can reallocate voting power in the hands of shareholders with superior information and skills and with appropriate incentives, thereby increasing the probability that a majority of the shares will be voted in favor of the correct option. Part 4 identifies three arbitrage strategies: (1) share trading, (2) proxy solicitation and (3) vote buying, and analyzes costs constraints and legal constraints to these strategies. The analysis suggests that limits of voting arbitrage are significant and affect voting efficiency much in the same way as limits of securities arbitrage affect market efficiency.

Finally, Part 5 applies the insights from the paper to two issues that are currently being studied by the U.S. Securities Exchange Commission (S.E.C.) and policymakers around the world: voting without a corresponding economic interest ('empty voting'), and the major influence of proxy advisers such as RiskMetrics, formerly Institutional Shareholder Services (ISS). Costs and benefits are brought into sharper focus by showing that each issue involves a trade off between the various mechanisms of voting efficiency. Several options are then presented to mitigate the costs while fostering the benefits.

The paper concludes by summarizing policy implications and formulating hypotheses that can be tested in future empirical research.

2. Defining Efficiency

Before studying the mechanisms leading to voting efficiency, we need to address a preliminary question. When should corporate voting be deemed efficient? This Part will argue that for present purposes, corporate voting may be deemed efficient when a majority of the shares is voted in favor of the option that *maximizes shareholder value*.

At the broadest level, the appropriate goal of corporate law is to advance the general welfare of all who are affected by a firm's activities, including shareholders, employees, suppliers and customers.[20] In principle the efficiency of shareholder voting should therefore be measured in terms of general welfare. In practice, though, shareholders vote with a view to maximizing shareholder value, not general welfare. Remarkably, scholars whose view of corporate voting turns on information aggregation do not seem to view this as a problem. The reason is that implicitly or explicitly they subscribe to the widely held view that shareholder value maximization is the appropriate corporate objective.[21] This view is also held by the Delaware Chancery Court, which recently opined that '[w]hat legitimizes the stockholder vote as a decision-making mechanism is the premise that stockholders … are expressing their collective view as to whether a particular course of action serves the corporate goal of stockholder wealth maximization.'[22]

And yet, whether the pursuit of shareholder value is an effective means of advancing general welfare is a question on which reasonable minds can and do differ.[23] The classic law and economics argument for why shareholder value *is* an effective means is based on the earlier notion that shareholders are the residual claimants, whereas other stakeholders have fixed claims.[24] If shareholders are the residual claimants, they receive the surplus that remains after all fixed claims are paid; maximizing this surplus means maximizing total value, or so the argument goes.[25] Critics of this argument reject the notion that shareholders are the sole residual claimants. On the one hand, other stakeholders, notably employees, can also be characterized as residual claimants.[26] On the other hand, individual shareholders cannot always be considered residual claimants since they may, for example, hedge away their economic interest by using derivatives.[27] If the characterization of shareholders as sole residual claimants is inaccurate, this undermines the notion that maximizing shareholder value is an effective means of maximizing general welfare.[28]

For present purposes, it is not necessary to join the debate on whether shareholder value maximization is the appropriate corporate objective. That is because our purpose is to explore the mechanisms leading to a predefined notion of efficiency

rather than to define the notion of efficiency. To avoid overly complicating the analysis, the remainder of this paper assumes that shareholder value maximization is the appropriate objective.[29] Accordingly, voting is deemed efficient when a majority of the shares is voted in favor of the option that maximizes shareholder value.[30]

When we assume that shareholder value maximization is the appropriate objective, we are presented with the question of how shareholder value should be measured. Some proponents of a theory of corporate voting based on the Jury Theorem have used share price as a proxy for shareholder value, arguing that when voters face the question whether or not to approve a merger, the 'right' answer is the option that increases the share price.[31] In light of this paper's primary goal to examine mechanisms that affect the relative efficiency of voting, it is not necessary to measure voting efficiency in absolute terms. But in light of its secondary goal of providing a basis for future empirical research, it is important to at least acknowledge possible objections to a focus on market prices, objections that arise from the fact that market prices may deviate from fundamental values.[32]

In particular, it might be objected that asking shareholders to judge which option increases the share price introduces a degree of endogeneity. After all, the share price represents the judgment of the market about the value of the firm. Shareholders, then, are essentially asked to judge how the market, including they themselves, will value the firm if, for example, it makes an acquisition. This is different from asking shareholders to judge what the marginal value of the acquisition is, a question that has a fully exogenous answer.[33]

The difference is subtle but relevant. Suppose management proposes the acquisition of a hyped Internet company for a hefty premium. If shareholders who vote individually believe the project has a negative net present value but expect the market as a whole to optimistically believe it has a positive net present value, a focus on share price implies that they will vote to approve the acquisition, which, after all, is the option that increases the share price.[34] When shareholders ignore their private information, voting efficiency is undermined, a problem we return to later in the paper.

In sum, while this paper assumes that shareholder value maximization is the appropriate corporate objective and accordingly deems voting efficient when a majority of the shares is voted in favor of the option that maximizes shareholder value, two cautionary notes are in order. If voting is efficient in the sense that shareholder value is maximized this need not imply that general welfare is

maximized, nor need it imply that the share price is maximized. With this in mind, let us turn to the mechanisms of voting efficiency.

3.The Mechanisms of Voting Efficiency

Recall that the Jury Theorem states that where in a choice between two alternatives voters are more likely to be right than wrong, then as the number of voters increases, the probability that a majority vote is correct tends toward certainty. The reverse, however, is also true: if the average voter is *more likely to be wrong than right*, adding more voters drives group competence *down to zero*. This 'dark side' of the Jury Theorem, as Sunstein refers to it, raises the question of whether shareholders are indeed more likely to be right than wrong. This Part identifies and explores four mechanisms that increase the probability that shareholders are right, i.e., that collectively they vote for the option that maximizes shareholder value: *informed voting*, *rational voting*, *independent voting*; and *sincere voting*.

Informed Voting

The first reason why shareholders are more likely to be right than wrong is that they will generally base their voting decisions on one or more pieces of information. The amount of information that is available will depend on such factors as the stringency of issuer disclosure requirements, analyst following, media coverage and the ownership structure of the firm, given that large shareholders generally have a greater incentive to gather information.[35] It is easy to see that informed voting is a crucial engine of voting efficiency, just as informed trading is a crucial engine of market efficiency.[36] But we need to be specific. Informed voting is merely a necessary condition for efficient voting, not a *sufficient* condition, as scholars who have made prior attempts to study voting efficiency seem to suggest.[37] What if shareholders have information but fail to process it rationally? What if they have information that originates from the same source and paints an inaccurate picture? What if they have information but purposely ignore it? As we will see below, the mechanism of informed voting must be complemented by mechanisms addressing these concerns.

Rational Voting

For shareholders to make the right decisions, they need to process their information rationally. When it comes to investment decisions as well as voting decisions, information processing is not just important, it is extremely important. To see why, recall that we characterized investment decisions as judgments on the net present value of a firm's future cash flows and voting decisions as judgments on the net

present value of a real option. *Both judgments involve a prediction of the future.* Scott Page, who has written extensively on collective wisdom and is careful to distinguish between information aggregation and prediction, makes precisely this point when he notes that '[s]tock market prices and election outcomes are predictions by huge numbers of people.'[38]

Thus, when it comes to making investment decisions, it is not just a matter of reading the available information to determine whether the true state of the world is A (the firm is worth, say, more than $1bn) or B (the firm is worth less than $1bn). Rather, the available information, which will be incomplete, needs to be interpreted as part of the complicated task of predicting the probability that going forward, the firm will be able to generate cash flows the present value of which exceeds $1bn.[39] Similarly, when it comes to deciding whether or not to vote for a merger, it is not a matter of reading the available information to determine whether the true state of the world is A (the merger increases shareholder value) or B (the merger decreases shareholder value). Rather, the information is the starting point for an intricate assessment of the probability that going forward, management will be able to realize the projected synergies.

In this light, it is remarkable that most scholars simply assume that when voters have no information they will vote at random, and that when they have some information they will process it rationally and therefore be better than at random.[40] Condorcet himself, by contrast, acknowledged the possibility that voters may be *worse* than at random. The reason, he observed, 'can only be found in the prejudices to which this voter is subject.'[41] This observation leads us to what psychologists such as Daniel Kahneman and Amos Tversky have found, namely that people *do* suffer from prejudices, or cognitive biases, when making decisions.[42] A finding that serves as a building block for an entire discipline within the field of economics, behavioral finance, which seeks to understand how cognitive biases, or, more generally, bounded rationality, affects shareholders' investment decisions.[43] Drawing on this research as well as research on political voting, the remainder of this section explores how bounded rationality may affect shareholders' *voting* decisions. This is done by focusing on three expressions of bounded rationality: sample size neglect, optimism and attribution errors.

Sample Size Neglect

According to a recent empirical study, the merger wave that swept the markets in the 1990s destroyed a staggering $216 billion in value for the shareholders of the acquiring firms.[44] Who took the decision to make these acquisitions? Managers, to begin. Perhaps they suffered from the cognitive bias of overconfidence, which may

have led them to overestimate the accuracy of their valuations and their ability to create value.[45] But even if managers took the decision to make these acquisitions, *shareholders* will often have approved them.[46] Perhaps in doing so, they suffered from cognitive biases as well.

Overconfidence on the part of shareholders is unlikely to be the culprit, because overconfidence refers to confidence in one's own capabilities rather than the capabilities of someone else, such as management of the portfolio firm. But here is a cognitive bias that can lead people to put too much faith in someone else's capabilities: *sample size neglect*. Sample size neglect is caused by the so-called representativeness heuristic and generates the 'hot hand' phenomenon. This phenomenon can be witnessed when sports fans become convinced that a basketball player who has made three shots in a row is on a hot streak and will score again, even though there is no evidence of a hot hand in the data.[47]

Now substitute the scoring basketball player for a CEO who has made a number of successful prior acquisitions, and we can see how shareholders might be inclined to approve the next big deal presented to them *even if those prior acquisitions are not fully representative of management's ability to make the proposed acquisition a success*, for example because they were much smaller. The aforementioned study of large loss deals offers some evidence supporting this proposition: firms that made these deals, it turns out, were serial acquirers, and the acquisitions made in the two years prior to the large loss deal had created substantial shareholder value.[48]

Whether shareholders who approved the large loss deals were influenced by this positive track record is an empirical question, but it certainly seems plausible. One piece of anecdotal evidence stems from the $100bn-plus acquisition of ABN Amro by a consortium of three European banks, billed as the largest banking deal ever. The acquisition took place just before the financial crisis erupted in the fall of 2007. For one consortium member in particular, Fortis, the acquisition entailed significant risks. Apart from the risk inherent to splitting a large financial institution such as ABN Amro in three parts and then to successfully integrate it, there was significant financing risk, which becomes clear from the fact that Fortis needed to raise about $18bn in equity, an amount roughly corresponding to half of its own market capitalization. The risks were widely publicized at the time, and have arguably materialized as Fortis collapsed in 2008 and was nationalized to avoid a meltdown.[49]

And yet, the acquisition was approved by more than *90%* of Fortis shareholders.[50] Why? Possibly because they attached too much significance to management's

prior successes, which were emphasized by management in its attempts to sell the deal.[51] Indeed, one shareholder was quoted as saying that he voted in favor of the bid 'to support Fortis management' and that he had 'rock solid' confidence in management's plans.[52] More tellingly, many institutional investors were likely to have followed ISS's recommendation to vote in favor of the acquisition, which was based in part on the fact that Fortis had a strong record of prior – but smaller – acquisitions.[53]

Optimism

Few scholars have contributed more to our understanding of irrational investor behavior than Robert Shiller, and much of his insights on how psychological and cultural factors affect investment behavior are of direct use when studying voting behavior. Take Internet stocks. The fact that many of these stocks have turned out to be overpriced suggests that investors had an exaggerated view of their potential.[54] A possible explanation for this is what Shiller refers to as 'new era economic thinking': 'The arrival of the Internet in the mid-1990's was interpreted by many casual observers as a fundamental change that would boost the productivity of the economy, since the Internet is a communications and distribution system of fundamental importance.'[55] This new era thinking seems to have encouraged investors to invest in Internet stocks – until the bubble burst. The same thinking may well have encouraged them to vote in favor of proposed acquisitions of overpriced Internet companies.

The $3.5bn acquisition by toymaker Mattel of software maker The Learning Company, in 1999, arguably is a case in point. The acquisition proved a disaster as The Learning Co. was sold shortly thereafter for a mere $27.3m, *less than one-tenth of the acquisition price*. But when the acquisition was first announced it was heralded by management as an opportunity for Mattel to venture into the digital age.[56] The enthusiasm was shared by Mattel's largest shareholder, the venerable investment firm Thomas H. Lee Co., which was quoted in a press release as saying that '[t]he ability [of the] combination to build their global leadership position and to do it in all relevant distribution channels, particularly the Internet, positions them to create significant shareholder value.' [57] This optimistic view proved representative of shareholder sentiment: a majority of Mattel shareholders voted for the acquisition, only to see shareholder value evaporate shortly thereafter.[58]

Attribution Errors

As a final example of how bounded rationality may affect voting behavior, consider the following evidence from a study of gubernatorial elections. The study

explores the hypothesis that in deciding whether or not to vote for an incumbent governor who is up for re-election, rational voters will reward good economic outcomes that reflect the governor's actions, but filter from their assessment economic events that reflect influences outside the politician's locus of control.[59] The findings suggest the opposite: voters in oil-producing states tend to re-elect incumbent governors during oil price rises and vote them out of office when the oil price drops.[60] This suggests that voters 'make systematic attribution errors and are best characterized as quasi-rational.'[61]

Do shareholders make the same attribution errors, voting to re-elect, for example, directors of oil companies during oil price rises (when profits tend to rise) and vote them out of office when the oil price drops (and profits tend to decline)? More generally, do shareholders overly attribute a firm's results to management's performance and insufficiently to industry-specific trends? It certainly isn't hard to imagine. In fact, one empirical study of CEO-firings presents tentative evidence that shareholders tend to 'shoot the messenger' by dismissing managers for failures that cannot be attributed to them.[62]

To conclude, rational voting is an important mechanism of voting efficiency. In terms of the Jury Theorem, if individual shareholders do not vote rationally, the probability that they will vote for the correct option may drop below 0.5 in which case the Theorem predicts that a majority vote will fail to identify the correct option.[63] Meanwhile, behavioral finance suggests that investors have bounded rationality and political science suggests that voters have bounded rationality. This section has merely offered a glimpse into how bounded rationality may affect corporate voting; future research will hopefully deepen our understanding.

Independent Voting

Independent voting is a crucial engine behind the Jury Theorem.[64] Standard Jury Theorem variants simply assume independence, and advocates of the Theorem as a theoretical foundation for corporate voting have implicitly done the same.[65] But independence is by no means a given. According to one commentator, the main weakness of the Jury Theorem 'is that its assumption of independence is unreasonable. Independent voting requires that there be no opinion leaders, that voters do not communicate, and that they do not posses common information, culture, religion, beliefs, or other elements that could lead to correlated votes.'[66]

This quote suggests a number of issues that could compromise shareholder independence. One is communication between shareholders, or 'acting in concert', which is widely seen as a means to overcome collective action problems and

strengthen shareholder voice.[67] To be sure, deliberation might elicit perspectives and information and thus improve the judgment of the deliberating parties.[68] But it is unclear whether and to what extent deliberation compromises independence, and '[a]bsent any general account of this, the basic reach of the Jury Theorem is not well understood.'[69] More generally, it is unclear to what extent the condition of independence can be relaxed.[70]

Fortunately, the path breaking work of Lu Hong and Scott Page, which moves beyond the Jury Theorem, enables us to see why independent voting is so important. In the previous two sections we have looked at informed voting and rational voting, mechanisms that can be seen as building blocks of individual voter competency. Now, we need to look at how it can be achieved that by putting together individually competent voters we can have an *even more* competent group. In other words, we have to look at the circumstances that cause 1 plus 1 to equal 3. That's where independence comes in.

The core insight delivered by Hong and Page is that putting people together in a group can be a means to leverage their individual competence if and when people have diverse cognitive skills.[71] And the good news is: people generally do have diverse cognitive skills. We just need to ensure is that they apply those skills when making a prediction, for example about which option maximizes shareholder value. When they do, they can for present purposes be said to *independently* make a prediction – even if they did not initially receive 'independent signals' about which option maximizes shareholder value.

What do we mean by cognitive diversity? When there is cognitive diversity, it means that people facing an issue differ in the analytical steps they take to arrive at a prediction. They may look at different *dimensions* of the same issue; they may come to different *interpretations* of what they see even when they look at the same dimension; and by using different prediction models, they may come to different *predictions* even if they share an interpretation.[72]

To see why different predictions are beneficial, let's return to the ABN Amro case. The suggestion that Fortis shareholders may have attached too much weight to management's track record of prior acquisitions implicitly assumed that in making a prediction about whether the acquisition of ABN Amro would maximize shareholder value, *each* shareholder focused on management's track record. But when there is cognitive diversity that is not necessarily the case. While some shareholders may look at management's track record, others may look at different dimensions of the issue, for example the resulting financing burden. When an investor focuses on management's track record and sees a strong track record, he

may predict that the acquisition will be a success. But when an investor focuses on financing and sees a heavy burden, he may predict that the acquisition will be a failure. The predictions will be *negatively correlated*; when one investor is wrong, the other will be more likely to be right. Hong and Page demonstrate, mathematically, that negatively correlated individual judgments result in more accurate collective judgments.[73]

The bottom line is that in assessing independent voting as a mechanism of voting efficiency, we should focus on phenomena that may cause diversity breakdowns. The remainder of this section discusses three such phenomena: correlated biases, information cascades and opinion leaders.

Correlated Biases

In his classic paper, *Market Efficiency and the Bean Jar Experiment*, Jack Treynor reports on an experiment conducted in his class. Students were asked to guess the number of beans filling a jar. The purpose of the experiment was to determine how accurate the mean of the guesses was, and how more accurate it was than the average guess. The jar held 810 beans; the mean estimate turned out to be 841, remarkably close to the true value. Moreover, only two of 46 guesses were closer to the true value. Treynor uses this as an example to suggest that the accuracy of market prices 'comes from the faulty opinions of a large number of investors who err independently' and whose errors therefore cancel out.[74]

While this is an interesting insight in and of itself, Treynor's experiment is cited here because it forms the introduction to a second experiment that yields important insights for the analysis of independent voting. In that experiment, Treynor cautioned students to take into account, among other things, the fact that the jar was made of thin plastic rather than of thick glass, increasing storage capacity. This time, the mean guess was 952.6, far less accurate than the mean guess of 841 in the first experiment. This suggests that the warnings had caused a *systematic error*. The conclusion that emerges is that whereas independent errors don't matter because they cancel out, systematic errors can affect the accuracy of group estimates.[75]

In behavioral finance parlance, by issuing warnings, Treynor 'framed' the question, thereby creating a psychological anchor. His experiment illustrates that psychological anchors 'can have significance for the market as a whole only if the same thoughts enter the minds of many.'[76] For this reason, Gilson and Kraakman, who wrote their original piece on market efficiency in the 1980s, didn't seem overly concerned.[77] But subsequent research has revealed that in real life we *do* see

the same thoughts enter the minds of many, because 'judgment biases afflicting investors in processing information tend to be the same.'[78] As a result, when shareholders vote they may well make systematic errors, just like the students in Treynor's experiment.

Bryan Caplan, in his book *The Myth of the Rational Voter: Why Democracies Choose Bad Politics*, reaches the same conclusion with respect to citizens voting on political matters. He identifies several cognitive biases that voters suffer from including an 'anti-foreign' bias, which causes voters to irrationally prefer protectionism over free trade.[79] Caplan's main point is that these biases cause voters to make systematic errors. Figure 1 illustrates how this results in an outcome that deviates from the outcome that would be socially optimal.

FIGURE 1: THE MEDIAN VOTER MODEL: SYSTEMATIC ERROR
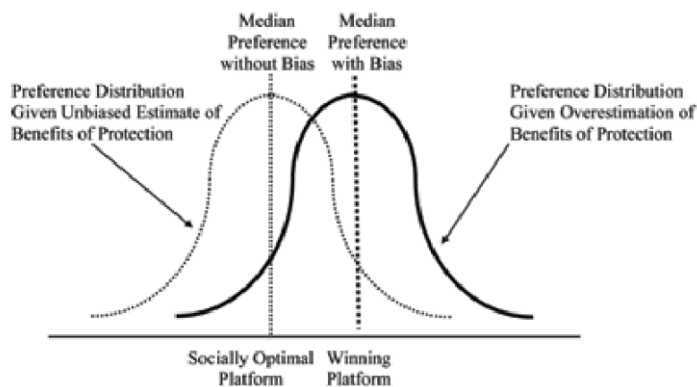
Source: Caplan (2007)[80]

To summarize, when biases are positively correlated, diversity breaks down and shareholders will tend to make the same predictions. This may cause them to collectively vote for the incorrect option.

Information Cascades

To illustrate the effect of information cascades, Shiller tells the story of two restaurants that open next door to each other.[81] One attracts increasing numbers of visitors merely because the first visitor made an essentially random choice to try this restaurant instead of the other. Subsequent visitors all choose the same restaurant, assuming that if earlier visitors chose this restaurant that must mean it's good. The other restaurant, meanwhile, stays empty. It may be the better one – who will ever know?

One way in which information cascades may influence investor behavior is analogous to the restaurant story: investors observe other investors' behavior and respond by adopting the same behavior. In stock markets, investors observe other investors' behavior through stock prices. This can create a feedback loop: price increases, via investor enthusiasm, feed back into further price increases.[82]

Investors may also observe other investors' behavior more directly, from the trading book and the stock exchange reporting system, and because securities laws require major share accumulations to be disclosed. When it becomes known that Warren Buffet has acquired a stake, the stock usually soars.[83] The reason is investors presume that he is well informed and his move must mean the stock is undervalued.[84] If Buffet is right, investors' copycat behavior will accelerate the process whereby the share price moves toward its fundamental value.[85] But what if he were wrong? In that case we are worse off because by copying his investment behavior, some investors will have ignored their private information and consequently the market system will have aggregated less information than available among investors.[86] As to those shareholders who didn't have any private information to begin with, their failure to make an effort to independently interpret public information will result in less diverse predictions and hence a less accurate group prediction.[87]

The ability to observe other investors' trades can influence investment behavior because trading is a sequential process. By contrast, one might argue, voting takes place simultaneously, since shareholders vote at the shareholders' meeting. On closer inspection however it becomes clear that shareholders *can* observe other shareholders' votes prior to making their own voting decision. Perhaps the clearest example is a proxy contest. The challenger will often hold a significant number of shares for otherwise he wouldn't be credible. In addition, it is not unusual for other large shareholders to publicly take sides prior to the actual vote, perhaps with the very purpose of influencing other shareholders. Again, if the other shareholders rely on the large shareholder's judgment and ignore their private information or fail to independently interpret public information, epistemic quality might suffer.

Even if shareholders do not observe each other's voting behavior, they may still make the same voting decisions because they base their decisions on the same information transmitted through a cascade. Again, it is easiest to see how this can happen when we look at investment decisions. After all, when markets soar, shoeshine boys notoriously offer stock tips, not voting recommendations. But the vehicles that can rapidly spread information that influences investment decisions – human conversation, the media, the Internet – can equally rapidly spread information that influences voting decisions. In fact, the information is often the

same. A popular story about a CEO's golden touch can either cause an investor to buy stock or, if he already owns the stock, to vote for a risky acquisition proposed by that CEO. Either way, the investor's move hardly reflects an independent judgment.

Notice that this kind of voting behavior, while perhaps not independent, may be perfectly rational. As long as an investor does not expect the cost of actively gathering information to outweigh the benefit of casting an informed vote, he might as well base his voting decision on information presented for free. Thus, as the ownership of a firm becomes increasingly dispersed and individual shareholders' expected influence on the outcome of the vote decreases, increasing numbers of shareholders might rationally engage in what is referred to as 'epistemic free riding.'[88] That is, *if they decide to vote at all*, for when shareholders do not expect to influence the outcome of the vote, it is rational for them to save themselves from not only the cost of gathering information but also the hassle of returning the proxy form.[89] This, indeed, is why most shareholders are rationally apathetic.

Opinion Leaders

As the reference to Warren Buffet suggests, information cascades often originate with opinion leaders. In stock markets, the main opinion leaders are analysts, whose status as experts is so undisputed it may lead investors to put aside their own views.[90] In terms of corporate voting, it is clear that if increasing numbers of shareholders base their voting decision on the judgment of a perceived expert, the probability that they collectively choose the correct option will increasingly depend on the probability that the *expert* chooses the correct option.[91]

The obvious expert that shareholders rely on is the board, which is generally perceived to have superior information as far as the firm is concerned. And of course, shareholders will be fully aware of the board's opinion. The mere fact that the board proposes a merger signals to shareholders that the board believes such merger would be beneficial. The board will next distribute proxy materials making the case for the merger, for example by projecting synergies. These synergies will often be difficult to verify. In the absence of counterfactual information, many shareholders will be inclined to rely on the board's recommendation and vote for the merger. Skeptics, meanwhile, may prefer to vote with their feet by selling shares instead of voting against the merger – prefer 'exit' over 'voice', in Albert Hirschman's terminology –, causing self-selection among voters.[92] Together, these insights may help to explain why shareholders almost never vote acquisitions down.[93]

If this explanation were correct it would be troubling from an epistemic perspective. As we have seen, boards too can sometimes be wrong. Their expert opinion may be skewed by overconfidence, their real motive to merge may be empire building, and so forth. To prevent a board's flawed judgment from translating to erroneous policies, it is key that shareholders vote on the basis of information obtained independently or at least processed independently, rather than blindly following the board's recommendation.

By now, the reader will have noticed there is something of a trade off between voter competence and voter independence. It may be possible to increase the accuracy of the average voter's prediction by, for example, publishing an expert's opinion. But this increase in average accuracy will come at the cost of a reduction in prediction diversity. Scott Page has formalized this trade off in his Diversity Theorem, which shows that average individual accuracy and prediction diversity are both equally important.[94] When it comes to corporate voting, it is difficult to measure average individual accuracy and also prediction diversity. Nevertheless, the Theorem is important for the analysis of voting efficiency because it cautions against overestimating the importance of accuracy and underestimating the importance of diversity.

The trade off becomes a real issue when policymakers have to decide, for example, to what extent they should facilitate participation by voters with relatively low competence. To see the issue, consider the role of retail investors in the stock market. The fact that they have relatively little information and suffer from bounded rationality suggests we might be better off excluding them from the market. After all, if retail investors invested solely through mutual funds, the competence of the average market participant, then by definition an institutional investor, would be higher (and retail investors wouldn't lose as much from trading on noise). At the same time, however, there would be less prediction diversity. Gregory La Blanc and Jeffrey Rachlinski, in their paper *In Praise of Investor Irrationality*, make essentially this point when they argue that excluding noise traders could result in less accurate prices because in a market consisting only of institutional investors there would be a greater risk of correlated biases.[95]

The competence of the average *voter* could similarly be increased by excluding retail investors from corporate governance. In a way, discrimination by competence already takes place when the right to put items on the agenda is restricted to large shareholders.[96] More subtly, policymakers could discourage retail shareholder participation by allowing practical barriers to the exercise of voting rights to persist.[97] The preceding analysis suggests that a downside to such a policy would be that prediction diversity is reduced. As a consequence, it is far

from clear that shareholders as a group would be right more often, and there is even a risk that on balance, epistemic quality would decrease.

Sincere Voting

The three mechanisms above imply that a shareholder has some information, processes that information rationally and independently arrives at a judgment on which option maximizes shareholder value. These mechanisms are completed by a fourth and final mechanism, which implies that shareholders actually vote in accordance with this judgment. When they do, they can be said to vote *sincerely*. Sincere voting is by no means a given, though. In this section, we address two variants of *in*sincere voting: conflicted voting and strategic voting.

Conflicted Voting

So far we have assumed that shareholders prefer the same outcome, namely the outcome that maximizes the firm's future cash flows. Under this assumption, shareholders merely have different judgments on the question of what the suitable means are to achieving this outcome. In practice, however, shareholders may have heterogeneous preferences. *Conflicted voting* occurs when a shareholder votes with the purpose of satisfying preferences that are different from the common preference to maximize future cash flows.

A benign case of conflicted voting is the use of the voting right to express concern over the well-being of others. In the 1980s, for example, shareholders used precatory votes to discourage firms from doing business in South Africa, which at that time was suffering under the apartheid regime.[98] Even shareholders of the world's first firm with dispersed ownership, the seventeenth century Dutch East-India Company (the VOC), showed signs of what behavioral economists nowadays refer to as bounded self-interest. Niall Ferguson relates how much of the VOC's success depended on the outcome of its battles with the Spanish and the Portuguese, and that by the time a truce was signed with Spain in 1608, the VOC had made more money from capturing enemy vessels than from trade.[99] Apparently, a major shareholder named Pieter Leijntjens 'was so dismayed by the company's warlike conduct that he withdrew from the Company in 1605.'[100]

In the greater scheme of things, it is encouraging that some shareholders use the voting right to express concern over the well-being of others. But to the extent the efficiency of shareholder voting is measured in terms of shareholder value maximization, it may be problematic. When the policy measure proposed to promote the well-being of others is detrimental to shareholder value, the

probability that shareholders who are sympathetic to the measure will vote for the 'correct' option will be lower than 0.5. The Jury Theorem (and simple logic) predicts that adding more shareholders of this kind will increase the probability that a majority of the shares is voted for the 'incorrect' option.

The nature of this problem becomes more pronounced when we consider a less benign case of conflicted voting: shareholders' use of the voting right to satisfy their *private interests*. In firms with concentrated ownership, a controlling shareholder might, for example, vote to approve a related party transaction that is not entered into at arm's length, or vote to appoint a director loyal to this interests rather than to the general interest of shareholders. Even in firms with dispersed ownership, individual shareholders may vote to satisfy their private interests, resulting in intra-shareholder conflicts. There is an emerging body of literature addressing these conflicts, and it is therefore not necessary to describe them here in detail.[101]

By way of example, consider the potential conflicts of interest arising between states as shareholders and ordinary shareholders. A few years ago, commentators expressed concerns about the rise of 'sovereign wealth funds', fearing they may be driven by strategic rather than financial motives.[102] The concern was that a, say, Chinese sovereign wealth fund would use its influence in a, say, US technology firm to engineer a merger (or some joint venture) between the firm and a Chinese company to enable that company to obtain access to the firm's technology. If the merger were put to a vote, the fund's voting behavior clearly wouldn't be aimed at maximizing future cash flows.[103]

Following the financial crisis, attention has shifted from sovereign wealth funds to Western governments, which have obtained significant influence over some firms as a result of providing financial support. Consider the case of carmaker Renault, in which the French state holds a large stake and which, in 2009, received a multibillion-dollar government loan to mitigate the impact of the crisis. As reported by the *Financial Times*, Renault was recently ordered by the French government to keep the production of its new Clio car in France rather than shift it to lower-cost Turkey.[104] If Renault shareholders were asked to elect directors, we might expect the government to vote in accordance with its belief on which nominee is most likely to protect French jobs rather than its belief on which nominee is best equipped to maximize future cash flows.[105] The larger the stake of the government, the greater the probability of a majority vote for the option that would fail to maximize shareholder value.[106] Thus, we can see how conflicted voting may affect voting efficiency.[107]

Strategic Voting

As the previous examples illustrate, conflicted voting occurs when a shareholder ignores his or her judgment on which option maximizes shareholder value because that shareholder has a different preference than shareholder value maximization. Interestingly, it may be rational for shareholders who do prefer shareholder value maximization to also ignore their own judgment on which option maximizes shareholder value. Before deciding how to vote, such shareholders take into account the expected voting behavior of other shareholders and then vote *strategically*.

Suppose that a shareholder holds a small stake and that all outstanding shares will be voted in a proxy contest. To see how this shareholder can increase the probability of a correct majority vote by voting strategically, consider that a shareholder's vote matters *only* if his vote is pivotal.[108] This implies that a rational voter should ask himself how he should vote in a state of the world were his vote is pivotal. In such a state, the shareholder should condition his voting decision on two different signals. The first is the private signal he would also receive in a state of the world where his vote is not pivotal, containing incomplete information on the value implications of the challenger winning the proxy contest. The second signal arises from being pivotal, which is that *almost half of the votes will have been cast in favor of the challenger.*

What information can the pivotal shareholder infer from the second signal? Suppose incumbent management holds 10% of the shares, which it can be expected to vote in its own support to secure private benefits. The shareholder will then be able to infer that five out of nine – i.e., *a majority* – of outside shareholders apparently possess information that leads them to believe that the challenger is best equipped to maximize shareholder value. In this state of the world, it is optimal to vote for the challenger.[109] In doing so, the shareholder effectively compensates the initial bias caused by the fact that the incumbents control 10% of the votes.

A recent empirical study of proxy contests has found evidence that is consistent with the theory that strategic voting can increase voting efficiency by mitigating biases.[110] But research on strategic voting is still in the early stages, and there are a number of issues that complicate the picture. One is the issue of preference distribution; in practice, the exact number of votes biased toward management may not always be known, which makes it difficult to infer useful information from hypothetically being the pivotal voter.[111] Most importantly for our purposes, an issue potentially arises when increasing numbers of shareholders vote strategically and in doing so ignore their own judgment on which option maximizes share

value.[112] At some point the initial bias may effectively be overcompensated and cause a bias in the opposite direction. While it goes beyond the scope of this paper to discuss the impact of strategic voting in further detail, it is clear that the issue represents an important area for future research.

To conclude, this Part has identified and explored four mechanisms that contribute to voting efficiency. In practice, none of the mechanisms will operate perfectly, nor would we necessarily want any of them to operate perfectly given the trade offs between the various mechanisms. If, for example, all shareholders would come to judgments independently, this could adversely affect the level of informed voting given that expert opinions would not be taken into account even if they convey useful information. If all shareholders would vote rationally, this could result in more accurate judgments but also in more epistemic free riding, more abstention and too much strategic voting. Thus, the taxonomy does not provide straightforward guidelines as to how voting efficiency can be promoted. But it does offer insight into the determinants of voting efficiency. As we will see later in the paper, this insight enables sophisticated analysis of the effects of current issues relating to shareholder voting.

4. Limits of Arbitrage

Arbitrage is a crucial mechanism of market efficiency because its effect is to bring prices to fundamental values.[113] This Part shows that arbitrage can similarly improve voting efficiency. Even if the initial distribution of information, skills and preferences among shareholders is such that a majority of the shares risks being voted in favor of the incorrect option, arbitrage can reallocate voting power in the hands of shareholders with superior information and skills and with appropriate incentives. This way, arbitrage increases the probability that a majority of the shares will be voted in favor of the correct option.

To be sure, there are differences between securities arbitrage and voting arbitrage that render the analogy imperfect. Perhaps the most striking difference concerns incentives. Securities arbitrage involves the exploitation of an opportunity to profit from the mispricing of a security by making money when the price of the security returns to its fundamental value. Because of this profit potential, the securities market 'creates a strong incentive for revelation of whatever information people actually hold.'[114] The profit potential from engaging in *voting* arbitrage is far less concrete. The shareholder's reward for spending resources to promote a correct voting outcome is that ultimately he should profit from an increase in the value of the firm if the correct option is chosen. The shareholder will not capture the full increase in firm value; he can only hope to receive, through a capital gain on his

shares, a pro rata share, while the other shareholders will receive their pro rata share.[115]

But let's put differences aside and focus on similarities. At a fundamental level, both securities arbitrage and voting arbitrage concern the removal of information asymmetry. From this perspective, there are three strategies that a shareholder with superior information about the correct option could deploy to leverage his information and increase the probability that a majority of the votes will be cast in favor of that option: (1) buying additional shares and thus voting rights, (2) soliciting proxies and (3) buying votes without the corresponding economic rights. The limits of voting arbitrage become clear as we focus on cost constraints and legal constraints to these strategies.

Share Trading

In the early 19th century, it was not uncommon for US firms to award only one vote per shareholder.[116] For individual shareholders of these firms it must have been difficult to leverage possession of superior information, other than through persuasion of other shareholders. Nowadays, the default rule is that each share conveys the right to exercise one vote. Consequently, a shareholder who wishes to leverage superior information can increase his influence simply by purchasing more shares and thus more votes.[117]

The clearest example of this strategy is the tender offer. By acquiring a majority of the shares and thereby, in principle, the majority of the votes, the shareholder who makes the tender offer will obtain the power to implement policies based on his superior information.[118] Yet, there is an important limitation to this arbitrage strategy: purchasing a majority of the shares of a public firm can be *very* costly.
A less costly alternative is the purchase of such a number of shares as needed to sway the vote, or at least to increase the probability that a majority of the shares will be voted for the correct option. Given that the average market capitalization of S&P 500 companies is approximately $21bn, the costs are still considerable.[119] If the expected voter turnout is 70%, an investor will have to buy some $147m worth of shares to obtain an additional 1% voting power, plus transaction costs. To the extent the investor ends up with a portfolio that is less diversified and thus riskier than prior to the purchase, the strategy will be even costlier.

There is, nevertheless, some empirical evidence suggesting that institutional investors do engage in this type of arbitrage, which may be worthwhile especially in firms with a relatively small market capitalization. Jennifer Bethel et al. recently studied the market for voting rights around 350 mergers and acquisitions between

1999 and 2005 and found that institutional investors are net buyers of shares around the voting record date, as shown in Figure 2. One possible explanation is that they buy shares to ensure that value-destroying mergers are rejected.[120]

FIGURE 2: NET BUYING BY INSTITUTIONAL INVESTORS AROUND VOTING RECORD DATES
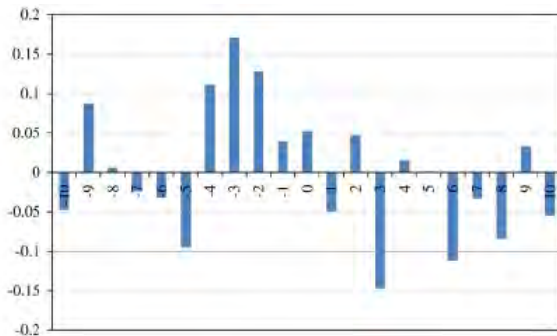
Source: Bethel et al. (2009)[121]

In terms of legal constraints, there are no direct constraints when purchasing shares in the spot market nor, as Delaware courts have recently confirmed, when purchasing shares through an off-exchange transaction.[122] There are significant *indirect* constraints, though. To name but a few: if the purchase results in more than 5% voting power, the shareholder may need to publicly disclose his position;[123] if the purchase results in more than 10% voting power, the shareholder becomes subject to short swing profit capture;[124] and if the vote buying results in more than 30% voting power, in certain jurisdictions such as European Union Member States the shareholder will run the risk of triggering a mandatory bid obligation. In light of these legal constraints and the cost constraints mentioned earlier, it is worthwhile exploring alternative arbitrage strategies such as proxy solicitation.

Proxy Solicitation

In theory, soliciting proxies from uninformed shareholders is an effective way of leveraging superior information. By soliciting sufficient proxies, the shareholder with superior information can ensure that the correct option is chosen by majority vote without having to purchase actual shares. [125] So if an overconfident management team proposes a merger that an informed shareholder knows will destroy value, he could solicit proxies to prevent the merger from being approved by a majority of the shareholders.

In practice, however, proxy solicitation appears to be an unattractive option. Among the issues discouraging the launch of a proxy contest are the significant costs associated with soliciting proxies, the uphill battle against incumbent management which can deploy corporate funds to solicit proxies and has an informational advantage, the risk that institutional investors may vote with management because of conflicts of interest, the problem that existing shareholders may be skeptical about the challenger's credibility (which effectively causes a pro-incumbent bias), and so forth.[126] As a result, proxy contests are rare. A study of contested solicitations in US firms between 1996 and 2005 identified only 74 contests not involving the election of directors, i.e., contests in which shareholders opposed the board on matters such as mergers.[127] This suggests that proxy solicitation is of limited use as an arbitrage strategy to leverage superior information, at least under the present rules of the game.

Vote Buying

The third and final arbitrage strategy examined here is vote buying. The potential of vote buying as a strategy to leverage superior information was recognized early on. In his classic 1962 essay, Henry Manne observed that the market for votes serves the critical function of causing votes to move in the hands of those shareholders 'who know how to use it most profitably.'[128] In a similar vein, Robert Clark noted that vote buying 'may be the cheapest or most feasible way for a person sincerely interested in shareholder welfare to achieve results that benefit the corporation as a whole.'[129] What are the cost and legal constraints to this strategy? The costs will largely depend on the consideration to be paid to the shareholder who agrees to vote as instructed. The consideration will be a function of the number of votes that need to be bought in order to become the pivotal voter or at least to significantly increase the probability that a majority of the shares is voted for the correct option. This, in turn, will depend on the number of shares initially held and other factors such as the likely turnout, the judgment of other shareholders on the question of which is the correct option, and the preference distribution. It appears that in absolute terms, the costs of buying votes, although not insignificant, need not be insurmountable either.[130] Whether it is worthwhile to incur the costs will depend on whether they are exceeded by the expected benefits, in the form of a capital gain on the shares initially held, if the correct option is chosen (adjusted for the probability that the correct option will not be chosen). This suggests that vote buying will generally be worthwhile only for shareholders with a sizeable stake.

Turning to *legal* constraints, courts have long harbored suspicions toward vote buying because, as the Delaware Chancery Court put it in the landmark case of

Schreiber v. Carney, 'vote buying is so easily susceptible of abuse.'[131] As in the debate on whether it is efficient that firms' capital structures reflect the principle of one share-one vote, the concern is that leveraged voting power enables shareholders to take self-serving actions to the detriment of other shareholders.[132] A shareholder may, for example, buy votes to secure shareholder approval of a transaction with a related party that has not been entered into at arm's length – an extension of the example of conflicted voting by a controlling shareholder offered in the previous section.

At the same time, courts have recognized that vote buying may be accomplished for laudable purposes, which is why vote buying is not always considered illegal per se.[133] Nevertheless, significant legal barriers remain. To begin, *Schreiber* implies that vote buying *will* be considered illegal per se if the vote buying agreement defrauds or disenfranchises the other shareholders.[134] Other shareholders will be considered disenfranchised when the bought votes deliver the swing votes.[135] This is problematic from an arbitrage perspective because the arbitrageur's very purpose will be to determine the outcome of the vote.

Even if the vote buying does not disenfranchise shareholders, *Schreiber* implies that the court will have to apply an intrinsic fairness test.[136] A recent decision of the Delaware Chancery Court suggests that the test boils down to the question whether the disproportionality between economic interest and voting interest resulting from the vote buying causes a misalignment between the vote buyer's interest and the general interest of the other shareholders, which is to maximize shareholder value.[137] This is encouraging from our perspective because the interest of the arbitrageur *will* be to maximize shareholder value.[138] Still, until courts have explicitly sanctioned vote buying with the purpose of increasing the probability that a majority of the shares is voted in favor of the correct option, the arbitrage strategy of vote buying entails significant litigation risk given the legal uncertainty and the interests at stake.

Overall, the conclusion that emerges is that opportunities to leverage superior information through voting arbitrage are limited. This is problematic in a world where shareholders have limited information, bounded rationality and heterogeneous preferences.

5. Policy Implications

This Part examines two phenomena that have recently captured the attention of the SEC and policymakers around the world: voting without a corresponding economic interest ('empty voting') and the major influence of proxy advisers such

as ISS. By using the taxonomy of mechanisms of voting efficiency as a framework for analysis, we can get the costs and benefits of these phenomena into sharper focus. This, in turn, enables the formulation of various policy options aimed at mitigating the costs while fostering the benefits.
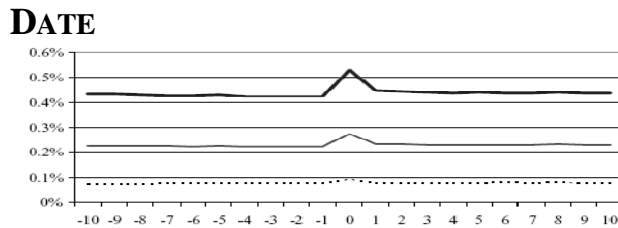
A. Empty Voting

In the previous section we assumed that votes are bought by agreeing with another shareholder that he or she will vote as instructed. But in modern financial markets, votes can effectively also be bought through a range of other techniques including borrowing shares (stock lending), reducing economic exposure through derivatives (hedging) and buying shares prior to the voting record date and selling them immediately afterwards (record date capture).[139] Vote buying has thus become relatively easy, and seems to be occurring more often.[140] To assess the impact of the new vote buying (or empty voting as it is referred to) on voting efficiency, it is again useful to look at the stock market. There, we find a cousin to empty voting: short selling. Both are strategies that can be used to leverage superior information. Both are facilitated by derivatives and securities lending. And both are commonly denounced by policymakers even if they carry the potential to enhance efficiency.

The potential of short selling to enhance efficiency lies in the fact that it can help to quickly incorporate new information into share prices. Empirical evidence suggests that short selling actually fulfills this role.[141] Policymakers have nevertheless long held a negative view of short selling.[142] Accordingly, they have responded to the recent financial crisis by imposing bans on short selling. The bans were largely driven by the concern that traders might seek to make a quick profit by selling short and driving the share price down either by increasing supply (and creating a negative feedback loop) or, less subtly, by spreading false stories. Theoretical as well as empirical studies of short-selling bans, however, suggest such bans slow down price discovery.[143] This suggests that we should be skeptical of limits on short selling.

By analogy, an analysis of empty voting should focus on its potential to enhance efficiency. Empty voting realizes this potential when it enables a shareholder with superior information to obtain greater voting power, thereby increasing the probability that a majority of the shares is voted in favor of the correct option. The new vote buying's potential to enhance efficiency is thus similar to that of conventional vote buying. This is recognized by scholars such as Susan Christoffersen et al., who examine stock lending activity and note that 'since the dispersion of information can be a poor match to the dispersion of shareholdings, vote trading can improve the aggregation of this information.'[144] Consistent with

this hypothesis, they document increased lending activity around voting record dates, as illustrated in Figure 3.

FIGURE 3: LOAN MARKET VOLUME AROUND VOTING RECORD DATE

Source: Christoffersen et al. (2007)[145]

As with other arbitrage strategies, we can explore the limits of empty voting as an arbitrage strategy by identifying cost and legal constraints. The costs will largely depend on the consideration that needs to be paid to the lender of the shares (in the case of stock lending), the counterparty to the derivative transaction (in the case of hedging), and, in the case of record date capture, to purchase shares in the market. As a general matter, these costs do not seem prohibitive. Indeed, they may be lower than the cost of conventional vote buying.[146] Moreover, finding a counterparty who is willing to lend money or shares or to take the long side in a derivative transaction will probably be easier than finding a shareholder willing to accept voting instructions against a payment.

Moving to *legal* constraints, we have already seen that courts are suspicious of conventional vote buying because it is susceptible of abuse. This suspicion is also warranted with respect to the new vote buying. In the extreme case where a shareholder uses derivatives to build a net short position, his interests clearly conflict with those of other shareholders, as he will prefer an outcome (share price decrease) that is the opposite from that preferred by other shareholders (share price increase).[147] The conflicted shareholder will, to use our terminology, vote *insincerely*.

Interestingly, the Delaware Chancery Court recently addressed the question of whether the concept of vote buying as developed by the courts is broad enough to encompass the new vote buying. The answer is yes. When these techniques prove deleterious to stockholder voting, the court 'can and should provide a remedy.'[148] In the case at hand, the court found that the voting buying was *not* a legal wrong, because the shareholder did not have any competing economic or personal interests that might have created an overall negative economic ownership.[149] So again, it appears that a shareholder with superior information who engages in vote buying – this time, the new vote buying – to ensure that the correct option is chosen might survive judicial scrutiny, but also faces a litigation risk.

Contrary to the courts, policymakers have been slow to recognize that empty voting need not be deleterious per se, resulting in additional legal constraints. While ownership disclosure rules have not yet been updated across the board, they have been in a number of jurisdictions and will soon be in others.[150] There are sound reasons to do so, both from a point of view of market efficiency and of corporate governance.[151] Indeed, the benefits of increased transparency may well outweigh the costs deriving from imposing legal constraints on empty voting as an arbitrage mechanism. In respect of further-reaching measures aimed at curbing abuse, however, the cost-benefit analysis is ambiguous.

Henry Hu and Bernard Black propose several measures that would have the effect of restricting not only the possibility to engage in vote buying for abusive purposes, but also the possibility to use vote buying as an arbitrage strategy.[152] This suggests that even though they acknowledge that the net efficiency of the new vote buying is uncertain, they tend to focus on the risk that votes are bought for abusive purposes.[153] It is far from clear though from Hu and Black's overview of real world examples that in those cases empty voting led to an inefficient outcome, and indeed they make no such claim. So until the contrary is proven, we must at least be open to the possibility that the new vote buying is used more often for benign purposes than for abusive purposes.

At this point, it is useful to revisit the analogy with short selling. The findings of a recent study on short selling and the news suggest that traders who sell short and then spread false news play a significant role.[154] Conceptually, this is equivalent to shareholders who engage in vote buying with the purpose of promoting a majority vote for the option that fails to maximize shareholder value. In both cases, the arbitrageur's behavior is not driven by the possession of superior information and consequently his acts will not reduce information asymmetry. But the findings of the study also suggest the importance of traders who, by collecting and analyzing publicly available data, detect that an issuer's share price exceeds its fundamental value, sell short and then truthfully spread their conclusions. This is the functional equivalent of shareholders who engage in vote buying with the purpose of promoting a majority vote for the option that *does* maximize shareholder value. In both cases, the arbitrageur's behavior is driven by the possession of superior information, and his acts will reduce information asymmetry.

While research on short selling and the news is still in an early stage, the results so far offer no reason to assume that short sellers who spread false news are more prevalent than short sellers who spread true news.[155] If there is no reason to assume that there is more abusive short selling than beneficial short selling, why should we

assume that there is more abusive vote buying than beneficial vote buying? It's not obvious why we should, especially since the usual suspects who engage in short selling, hedge funds, are one and the same as those who are usually suspected of engaging in the new vote buying.[156]

The S.E.C. has recently issued a draft release through which it seeks to obtain insight into how empty voting should be regulated.[157] The preceding analysis suggests that, because empty voting can be used for both beneficial and abusive purposes, it generally makes sense to battle abusive empty voting through narrow ex post rules rather than through broad ex ante prohibitions of empty voting. This observation completes the analogy with short selling. Finance scholars are near unanimous in their disapproval of short selling bans, citing the unintended consequence of disabling the salutary effect of short sales increasing information efficiency.[158] The new vote buying should also not be illegal per se. Rather, if it is established after the fact that a shareholder engaged in empty voting not to leverage superior information but to further his private interests by profiting from a majority decision that fails to maximize shareholder value, courts should intervene, just as regulators will intervene if it is established after the fact that a trader engaged in short selling not to leverage superior information but to further his private interests by profiting from the market's response to false news.[159]

To enable ex post scrutiny, transparency is key. To begin, a disclosure obligation discourages empty voting driven by insincere motives, by increasing the risk of detection. Moreover, disclosure enables the market and the firm to detect actual abuse and commence litigation if need be.[160] In securities markets, to enable detection of abusive short selling it suffices to require disclosure to the regulator only. This way, the profit potential from short selling is not unduly restricted and incentives to search for fundamental information are preserved. But notice that in principle a shareholder who engages in empty voting with sincere purposes needn't be reluctant to disclose his increased voting power to the market. On the contrary, if such shareholder holds a significant economic stake, public disclosure sends a credible signal to other shareholders that the shareholder has superior information and thus offers a means to further leverage that information. In this sense, disclosure of empty voting positions may increase voting efficiency in the same way as disclosure of short selling may increase market efficiency, even if it induces a risk of herding behavior.[161]

B. Proxy Advisers

Proxy advisers play an increasingly prominent role in corporate governance. Earlier in the paper, ISS's recommendation to vote in favor of the acquisition of

ABN Amro by Fortis was mentioned as a possible explanation for why Fortis shareholders approved the deal. ISS's recommendation is also seen as the explanatory factor for why Hewlett-Packard shareholders approved the controversial acquisition of Compaq in 2002.[162] But instead of relying on anecdotal evidence, we can rely on a growing body of systematic evidence revealing ISS's influence on voting outcomes. A study using a sample of over 40,000 director elections, for example, finds that directors receiving a negative ISS recommendation received 19% fewer votes.[163] This suggests a significant influence.

How do proxy advisers affect voting efficiency? Or, more precisely, how do proxy advisers affect the operation of the various mechanisms of voting efficiency? To answer this question, we first need to take a closer look at the impact of proxy advisers on *individual* voting behavior.

While empirical evidence is scarce, one study has found that mutual funds have tended to vote in line with ISS recommendations across the board during the five recent proxy seasons.[164] Although this finding suggests that mutual funds follow ISS's recommendation instead of their independent judgment – which, as we have seen, could affect voting efficiency –, it does not provide conclusive evidence that they do. Because ISS typically consults with mutual funds prior to issuing its recommendations, it cannot be excluded that it tailors its recommendations to track mutual funds' voting preferences.[165]

Even if ISS recommendations merely track mutual fund preferences, however, they may still compromise voter independence, for two reasons. First, mutual fund managers consulted by ISS are unlikely to be unanimous in their beliefs. ISS's recommendation would thus necessarily deviate from at least some fund managers' beliefs. Some of these managers may be inclined to change their beliefs once ISS has issued its recommendation, assuming the recommendation is based on superior information, or simply to avoid criticism.[166]

Second, shareholders who are not subscribed to ISS's advisory services may also learn of ISS's recommendation prior to deciding on how to vote. Especially when shareholders votes are contentious, such as in proxy contests or takeovers, ISS's recommendations typically receive much attention from the financial press. When shareholders learn of the recommendation, again, they may be inclined to base their voting decision on ISS's recommendation.[167] In each case, shareholders would ignore their own beliefs.

Notice that a trade off emerges between independent voting and informed voting, for while ISS's recommendations may reduce voter independence they may also raise average competence, just as recommendations of other types of opinion leaders may do. Some evidence suggesting that ISS recommendations raise average competence is provided by a recent study that documents significant abnormal returns around ISS recommendations in proxy contests.[168] To explain these returns, the authors test the hypothesis that ISS recommendations are informative about the value that a dissident team would bring to a firm if victorious, and find that they are.[169] Apparently, the market perceives ISS as being extraordinarily competent. If this is correct, ISS recommendations can promote informed voting.

Whether it can be inferred from the market's response that ISS is indeed extraordinarily competent is questionable, though. Investors may not accurately perceive the information content of a recommendation.[170] A somewhat similar problem exists with respect to the judgments of credit rating agencies. Investors' responses to downgrades can be quite dramatic, as evidenced by the sharp declines in share prices following the rating agencies' downgrades of debt issued by Southern European countries such as Greece this spring.[171] This raises concern as to whether the market's response is proportionate to the information content of such a downgrading. Indeed, David Beers, head of sovereign ratings of Standard & Poor's, a major credit rating agency, was recently quoted as saying that 'people's perceptions are that a downgrade from AAA means that minutes later you default, but in fact it means only a slight increase in default risk.'[172]

Skepticism is also warranted when we turn our attention from ISS's proxy advise to its corporate governance ratings, which may indirectly influence voting behavior on, for example, proposed by-law amendments. The main thrust of criticism is that ISS' rating methodology fails to account for firm specific characteristics, i.e. that one size does not fit all.[173] Indeed, empirical evidence suggests that governance ratings have failed to adequately predict risks associated with governance structures – just as credit rating agencies have failed to adequately predict risks associated with financial structures.[174]

The trade off between the various mechanisms of voting efficiency may also indirectly involve conflicted voting. There is concern that ISS's consulting services to issuers may compromise its objectivity in rating their governance structures or in issuing proxy advise with respect to these issuers.[175] As to the rating of governance structures, the concern is mitigated by the recent launch of ISS's 'Governance Risk Indicators', which are both transparent and absolute.[176] But there remains widespread unease about potential agency problems.[177]

The preceding analysis has three implications for policymakers such as the S.E.C., which in its recent concept release also addresses the question of whether and how to regulate proxy advisors.[178] First, to promote informed voting, policymakers could require increased transparency of proxy advisers' methodologies, just as they are requiring increased transparency of credit rating agencies' methodologies.[179] Second, to promote independent voting, policymakers may wish to encourage institutional investors to make an independent judgment rather than exercising their voting rights solely on the basis of proxy advise, just as they have cautioned investors against overly relying on credit rating agencies.[180] Third and finally, to prevent conflicted voting, policymakers could consider to restrict the ability of proxy advisers to provide consulting services to issuers, just as they have restricted the ability of auditors to provide consulting services to issuers.[181] A less far-reaching option would be to require proxy advisers to take strict measures to avoid conflicts of interest, which measures could be similar to the ones credit rating agencies are required to take pursuant to the recent Dodd-Frank Act.[182]

Taking these measures is critical in light of pending reforms. Consider the reform in the area of executive compensation, on which proxy advisers have strict policies. Not only do shareholders in US firms now have broader powers with respect to executive compensation, the issue will also be qualified as a non-routine matter meaning brokers may vote only when instructed.[183] Since retail investors are least likely to instruct their brokers, the vote of institutional investors is likely to increase in relative weight. And given that institutional investors are the ones retaining proxy advise, it is ever more important that they vote on an informed and independent basis.[184] Lest some portfolio firms lose talent to rival firms because they are unable to offer competitive pay, the fear expressed by Countrywide's former CEO at the beginning of this paper.

6.Conclusion

This paper has drawn an analogy between stock trading and corporate voting and used insights on market efficiency to study voting efficiency. The result is a taxonomy of mechanisms of voting efficiency, including informed voting, rational voting, independent voting and sincere voting. The paper has also explored the limits of voting arbitrage through share trading, proxy solicitation and vote buying. This has provided a framework for analysis of two issues that are currently being studied by the SEC and policymakers around the world: empty voting and the major influence of proxy advisers. The analysis has shown why policymakers should refrain from addressing empty voting through further reaching measures than disclosure, except on an ex post basis in individual cases of abuse. In addition,

the analysis has shown that policymakers should consider specific measures relating to proxy advisers in order to enhance voting efficiency. These measures should be aimed at promoting informed voting and independent voting, and at preventing conflicted voting.

The framework also provides a roadmap for future empirical research by generating a number of testable hypotheses. Among these are: (1) sample size neglect causes shareholders of firms with strong track records of prior acquisitions to approve proposed acquisitions even if the prior acquisitions are not fully representative of management's ability to make the proposed acquisition a success; (2) optimism causes shareholders of firms to approve proposed acquisitions that purport to exploit opportunities arising in a new era, and to appoint directors who claim they will exploit such opportunities; (3) shareholders make attribution errors in director elections; (4) the presence of an opinion leader results in convergence of shareholder votes around the explicit or implicit recommendation of the opinion leader; (5) the greater the dispersion of share ownership, the greater the incentive to engage in epistemic free-riding and thus the greater the relative impact of an opinion leader; and (6) absent conflicted voting, the more significant the cost and legal constraints to voting arbitrage, the greater the risk that a majority of the shares in a firm with dispersed ownership will be voted for the incorrect, i.e. value decreasing, option.

To conclude, our understanding of voting efficiency may perhaps never equal our understanding of market efficiency given the unmatched wealth of data that the stock market churns out every minute. But the importance of voting efficiency for the efficient allocation of resources in the economy compels us to try to improve our current limited understanding. Here, the taxonomy of mechanisms of voting efficiency should prove a useful analytical tool.

Notes

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[1] James R. Hagerty, Rainmaker Mozillo Exits Under a Cloud, Wall Street Journal, June 28, 2008 (reporting that when Mozillo was asked in 2007 about proposals to give shareholders a nonbinding vote on compensation, 'he said that 'The shareholders have no clue' how much Countrywide needed to pay to attract talent.')

[2] *See* Eugene A. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. Fin. 383 (1969).

[3] Ronald J. Gilson & Reinier Kraakman, *The Mechanisms of Market Efficiency*, 70 Va. L. Rev. 549 (1984).

[4] *See generally* Nicholas Barberis & Richard H. Thaler, A Survey of Behavioral Finance, in ADVANCES IN BEHAVIORAL FINANCE VOL. II 1 (Richard H. Thaler ed., Princeton University Press 2003).

[5] Milton Friedman, *The Social Responsibility of Business is to Increase its Profits*, The New York Times Magazine, September 13, 1970; Frank Easterbrook & Daniel Fischel, *Voting in Corporate Law*, 26 J.L. & Econ. 395, 403 (1983).

[6] Dodd–Frank Wall Street Reform and Consumer Protection Act (Pub. L. 111-203, H.R. 4173), §951 (amending the Securities Exchange Act of 1934 to ensure that shareholders have 'say on pay'); section §971 (authorizing the S.E.C. issue to rules permitting the use by a shareholder of proxy solicitation materials supplied by an issuer for the purpose of nominating directors).

[7] *See* SIR DAVID WALKER, A REVIEW OF CORPORATE GOVERNANCE IN UK BANKS AND OTHER FINANCIAL INDUSTRY ENTITIES 71, 85 (2009) (noting that institutional investors appear to have been slow to act where issues of concern were identified in banks in which they were investors); FINANCIAL REPORTING COUNCIL, THE UK STEWARDSHIP CODE (2010), Principle 3 (investee companies should be monitored to determine when it is necessary to enter into an active dialogue with their boards).

[8] *See e.g.* Lucian Bebchuk, *The Case for Increasing Shareholder Power*, 118 Harv. L. Rev. 385, 847-8 (2005) (arguing that increasing shareholder power to intervene would improve corporate governance and shareholder value by addressing important agency problems afflicting public firms); Stephen M. Bainbridge, *The Case for Limited Shareholder Voting Rights*, 53 UCLA L. Rev. 601, 623 (2006) (arguing that vesting decisionmaking authority in a centralized nexus distinct from the shareholders is what makes the public firm feasible).

The 'law and finance' literature also approaches shareholder voting from an agency perspective (*see e.g.* Rafael La Porta, Florencio Lopez-de Silanes & Andrei

Shleifer, *Law and Finance*, 106 J. Pol. Econ. 1113 (1998)). To the extent this literature focuses on voting rights as a means of protecting investors against expropriation by managers, it is of limited relevance for present purposes because whereas the law and finance literature tries to measure the economic consequences of different levels of investor protection, in this paper we are interested in the economic consequences of differences in voting behavior *given a certain level of investor protection*. To the extent the law and finance literature focuses on voting rights as a means of protecting investors against expropriation by *dominant shareholders*, it is of relevance for present purposes; *see infra* note 101 and accompanying text.

[9] F.A. Hayek, *The Use of Knowledge in Society*, 35 Am. Econ. Rev. 519, 520, 526 (1945).

[10] Sanford Grossman, *On the Efficiency of Competitive Stock Markets Where Traders Have Diverse Information*, 31 J. Fin. 573, 581 (1976).

[11] This description is taken from Paul Edelman, *On Legal Interpretations of the Condorcet Jury Theorem*, 31 J. Legal Stud. 327, 328 (2002).

[12] This can be illustrated as follows. In a setting with three voters, A, B and C, who each vote for the correct answer with probability 0.7, the probability that they will all be correct is 0.7x0.7x0.7=0.343; the probability that A and B will be correct is 0.7x0.7x0.3=0,147; the probability that B and C will be correct is also 0.147, as is the probability that A and C will be correct. The majority will therefore be correct with probability 0.343+3x0.147=0.784, a higher probability than the probability that either individual voter will be correct.

[13] JAMES SUROWIECKI, THE WISDOM OF THE CROWDS: WHY THE MANY ARE SMARTER THAN THE FEW (London, Abacus 2005); CASS R. SUNSTEIN, INFOTOPIA: HOW MANY MINDS PRODUCE KNOWLEDGE (Oxford University Press 2006).

[14] *See* Shmuel Nitzan & Uriel Procaccia, *Optimal Voting Procedures for Profit Maximizing Firms*, 51 Public Choice 191, 197 (1986) (noting that 'as the number of consultants tends to infinity, the probability of identifying the 'correct' alternative under uncertainty tends to one'); Zohar Goshen, *Controlling Strategic Voting: Property Rule or Liability Rule?*, 70 S. Cal. L. Rev. 741 (1996) and, by the same author, *Voting (Sincerely) in Corporate Law*, 2 Theoretical Inquiries L. 815 (2001) (noting that 'underlying the voting mechanism is a statistical proposition that a majority vote for a corporate transaction represents the 'correct choice''); Saul Levmore, *Voting with Intensity*, 53 Stan. L. Rev. 111, 158 (2000) (noting with respect to corporate voting that 'there is something of a case to be made for the

applicability of the Condorcet Jury Theorem'); Robert B. Thompson & Paul H. Edelman, *Corporate Voting*, 62 Vand. L. Rev. 129, 149 (2009) (proposing a theory of corporate voting 'that turns on information aggregation and error correction' and referring to the Jury Theorem).

[15] The emphasis on increasing numbers of shareholders implies that the Jury Theorem is especially useful as a theoretical foundation for corporate voting in widely held (listed) firms. The Theorem is less useful as a theoretical foundation for corporate voting in closely held (non-listed) firms, even if the basic principles as described in this paper will continue to apply. Listed firms with a controlling shareholder form a peculiar case. Even if the total number of shareholders may be large, the fact that one shareholder de facto controls a majority of the votes means the effective number of voting shareholders is reduced to one. Moreover, there is a risk that the voting behavior of the controlling shareholder is guided by different interests than the interests of the minority shareholders; *see infra* notes 98-105 and accompanying text.

[16] Adrian Vermeule, *Many-Minds Arguments in Legal Theory*, 1 J. Legal Analysis 1, 4 (2009).

[17] Sunstein, *supra* note 13 at 121 (noting also that 'simply because purchasers are purchasers, and hence are willing to put their money where their mouth is, there is an increased likelihood that they will be right). *But see* Vermeule, *supra* note 16 at 10 (noting that '[t]he Condorcetian mechanism is a model of aggregated intentions, not an invisible-hand mechanism, whereas Hayek thinks that the aggregation of information must occur through the action of the invisible hand' and that '[i]n this sense, there can be no Condorcetian interpretation of Hayek.')

Note that this paper applies insights on market efficiency to voting efficiency in order to identify mechanisms of voting efficiency, not to assess how well voting aggregates information compared to share trading, as some other scholars have attempted to do. For theoretical approaches, *see e.g.* Paul H. Edelman & Randall S. Thomas, *Corporate Voting and the Takeover Debate*, 58 Vand. L. Rev. 453 (2005); Lucian A. Bebchuk & Oliver D. Hart, *Takeover Bids vs. Proxy Fights in Contests for Corporate Control* (2001). Harvard Law and Economics Discussion Paper No. 336. Available at http://ssrn.com/abstract=290584; Ronald J. Gilson & Alan Schwartz, *Sales and Elections as Methods for Transferring Corporate Control*, 2 Theoretical Inq. in Law 1 (2001). For an empirical approach, *see* Yair Listokin, *Corporate Voting vs. Market Price Setting* (2008). Yale Law & Economics Research Paper No. 362. Available at http://ssrn.com/abstract=1112671.

[18] NIALL FERGUSON, THE ASCENT OF MONEY: A FINANCIAL HISTORY OF THE WORLD 120 (New York: Penguin Press 2008).

[19] *See* Gilson & Kraakman, *supra* note 3 at 553 (proposing 'a general explanation for the elements that lead to – and limit market efficiency.')

[20] John Armour, Henry Hansmann & Reinier Kraakman, *What is Corporate Law*, in: THE ANATOMY OF CORPORATE LAW: A COMPARATIVE AND FUNCTIONAL APPROACH 5 (R. Kraakman et al. eds., Oxford University Press 2009) (noting also that the advancement of the general welfare should be understood as the pursuit of Kaldor-Hicks efficiency).

[21] *See* Levmore, *supra* note 14 at 158 (arguing that there is a case to be made for application of the Jury Theorem because there is the metric of value maximization.); Thompson & Edelman, *supra* note 14 at 155 (noting that 'the franchise is limited to shareholders because the law has decided that each corporation is best served by focusing on its own stock price, not overall social welfare'); Surowiecki, *supra* note 13 at 269 (contrasting the problem that in political voting there is no standard that allows us to judge a political decision to be 'right' or 'wrong' to the case of the corporation, 'where there is a simple and coherent definition of what's in 'the corporate interest'- namely, legally increasing the discounted value of the company's future free cash flows.') *See also* Goshen, *Controlling Strategic Voting*, *supra* note 14 at 745, 750 (defining the goal as assuring transaction-efficiency).

[22] *Kurz v. Holbrook*, C.A. No. 5019-VCL (Del. Ch. Feb. 9, 2010) at 66.

[23] Armour et al., *supra* note 20 at 29.

[24] Easterbrook & Daniel Fischel, *supra* note 5 at 403.

[25] Jill E. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy*, 31 J. Corp. L. 637, 658 (2005).

[26] *See e.g.* Lynn A. Stout, *Bad and Not-So-Bad Arguments for Shareholder Primacy*, 75 S. Cal. L. Rev. 1189, 1190, 1194 (2002); Bernard Black, *Corporate Law and Residual Claimants* (2001). John M. Olin Program in Law and Economics Working Paper No. 217. Available at http://www.ssrn.com/abstract=1528437.

[27] *See infra* note 139 and accompanying text. Another example is offered by the financial crisis. When governments step in to rescue firms deemed too big to fail, shareholders are effectively substituted as residual claimants by the government, and ultimately the taxpayer.

[28] Fisch, *supra* note 25 at 660. The notion is also undermined by other issues, such as the possibility that individual firm decisions may create negative externalities. *Id.*

[29] A focus on shareholder value also enables us to distinguish between voting as a mechanism for information aggregation and voting as a mechanism for *preference* aggregation. The latter is often – though not always – associated with political voting, where voters may prefer different outcomes. (For an epistemic approach to political voting, *see* Hélène Landemore, *Democratic Reason: Why the Many Are Smarter than the Few and Why It Matters* (2009). Available at http://yale.academia.edu/Helene-Landemore/Papers.) For example, some voters may prefer an outcome that maximizes economic growth, while others may prefer an outcome that minimizes social inequalities. To aggregate heterogeneous preferences and obtain transitive outcomes is challenging if not impossible, as Arrow's Theorem shows. This issue features prominently in social choice theory. Corporate constituencies such as employees and shareholders, too, have heterogeneous preferences, and arguments from social choice theory have therefore also been invoked in the scholarly debate on corporate voting. *See* Easterbrook & Fischel, *supra* note 5 at 405 (arguing that a consistent system of choices is only possible when voters hold the same ranking of choices (or when rankings are at least single peaked), and that shareholders form such a homogenous group because of their shared interest in profit maximization). *But see* Grant Hayden & Matthew Bodie, *Arrow's Theorem and the Exclusive Shareholder Franchise*, 62 Vand. L. Rev. 101, 118-27 (2009) (arguing that the likelihood of cyclical outcomes in case of corporate voting by multiple constituencies with heterogeneous preferences may not be that significant and questioning whether occasional transitivity would do much harm to organizations, at least when it comes to corporate board elections). By contrast, shareholders generally prefer the same outcome, namely the outcome that maximizes the firm's future cash flows. Later in the paper, we will see that shareholders do not *always* have homogenous preferences (*see infra* notes 98-106 and accompanying text). But starting from the assumption that they do, we can see how shareholders, based on the bits and pieces of information available to each of them, merely have different beliefs on what the most suitable means are to achieving the common goal of shareholder value maximization. Thus, it becomes clear that voting can serve as a mechanism for information aggregation.

[30] In the scholarly debate on market efficiency, a distinction is sometimes made between informational efficiency and fundamental efficiency. An informationally efficient market implies the absence of a profitable trading strategy based on

publicly available information, whereas fundamental efficiency implies that the market price represents the best current estimate of the present value of future cash flows. If the definition of voting efficiency used in this paper would need to be likened to one of these two interpretations of market efficiency, it would presumably be closest to fundamental efficiency. *But see* Ronald Gilson & Reinier Kraakman, *The Mechanisms of Market Efficiency Twenty Years Later: The Hindsight Bias*, 28 J. Corp. Law L. 715, 716 (2003) (expressing skepticism about the usefulness of the distinction between informational efficiency and fundamental efficiency).

[31] Thompson & Edelman, *supra* note 14 at 150.

[32] *See generally* ROBERT J. SHILLER, IRRATIONAL EXUBERANCE (New York: Broadway Books 2005).

[33] *See* Edelman, *supra* note 11 at 338 (noting that the information aggregation model requires an exogenous choice of the right answer).

[34] *See* Patrick Bolton, Jose Scheinkman & Wei Xiong, *Executive Compensation and Short-Termist Behavior in Speculative Markets*, 73 Rev. Econ. Stud. 577, 597 (2006) (modeling a market in which investors have heterogeneous beliefs and concluding that '[when] it is possible for future investors to overvalue the firm due to their optimism, it is in the interest of current shareholders to cater to such potential sentiment even at the expense of firm long-term fundamental value.')

Notice that this description of how shareholders make voting decisions tracks John Maynard Keynes' description of how shareholders make investment decisions, namely by 'anticipating what average opinion expects the average opinion to be.' JOHN MAYNARD KEYNES, THE GENERAL THEORY OF EMPLOYMENT, INTEREST, AND MONEY 151 (1935). Similar problems arise when *management* is asked to run the business with a view to maximizing the share price. *See e.g.* Michael Jensen, *Agency Costs of Overvalued Equity*, 34 Fin. Mgmt. 5 (2005) (arguing that when the firm's equity is overvalued, management will become desperate to meet the market's unrealistic expectations and engage in negative net present value investments that the market thinks will generate value); William B. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. Penn. L. Rev. 653 (2010).

[35] *See* Gilson & Kraakman, *supra* note 3 at 592 (identifying determinants of the amount of information available); Andrei Shleifer & Robert W. Vishny, *Large Shareholders and Corporate Control*, 94 J. Pol. Econ. 461 (1986) (discussing incentives of large shareholders).

[36] Gilson & Kraakman, *supra* note 3 at 569. *See also* Sam Peltzman, *How Efficient is the Voting Market?*, 33 J. L. & Econ. 27 (1990) (analyzing the relationship between informed voting and voting efficiency in the political context).

[37] *See* Thompson & Edelman, *supra* note 14 at 132, 150 (arguing that '[s]hareholder voting will satisfy the necessary requirements to gain the information advantage as structured in the Condorcet theorem. The theorem's premise that voters will expend effort to gather information is clearly satisfied by large shareholders who have an economic incentive to gather information'); Kevin A. Kordana & Eric A. Posner, *A Positive Theory of Chapter 11*, 74 N.Y.U L. Rev. 161, 168 (1999) (arguing that it is reasonable to assume that the individual creditor votes correctly with probability greater than 0.5 because 'a completely uninformed creditor who flipped a coin would vote correctly with a probability of 0.5; so if a creditor has any information, its probability will exceed 0.5.')

[38] SCOTT PAGE, THE DIFFERENCE: HOW THE POWER OF DIVERSITY CREATES BETTER GROUPS, FIRMS, SCHOOLS AND SOCIETIES 176 (Princeton University Press 2007).

[39] *See* Gilson & Kraakman, *supra* note 3 at 580, 581 (observing that the role of price 'resembles the role of consensus forecasts in polls of expert opinion' and that the price mechanism 'permits prices, in some circumstances, to reflect aggregate – or consensus – forecasts that are nearly optimal over the long run than those of any individual trader.') This observation is based in part on two earlier finance papers, S. SHEFFRIN, RATIONAL EXPECTATIONS 141-46 (Cambridge Surveys of Economic Literature 1983) and Robert E. Verrechia, *On the Theory of Market Information Efficiency*, 1 J. Acct. & Econ. 77 (1979). *See also* Page, *supra* note 38 at 177 (noting that 'stock markets encapsulate the predictions of a crowd of people about future dividend streams'); Michael J. Mauboussin, *Revisiting Market Efficiency: The Stock Market as A Complex Adaptive System*, 14 J. Applied Corp. Fin. 8 (2002).

[40] *See* references *supra* note 37. *See also* William P. Bottom, Krishna Ladha & Gary J. Miller, *Propagation of Individual Bias through Group Judgment: Error in the Treatment of Asymmetrically Informative Signals*, 25 J. Risk & Uncertainty 147 (2002) (noting that the emerging body of theory on the Jury Theorem 'is based on a model of individual judgment that recognizes limits on the information available to individuals though it does not address limitations on their ability to process information.')

[41] CONDORCET, SELECTED WRITINGS 62 (Keith Michael Baker ed., Indianapolis: Bobbs-Merrill 1976).

[42] For an overview and discussion of Kahneman and Tversky's work and its relevance to investor behavior, *see* Barberis & Thaler, *supra* note 4 at 12-22.

[43] The concept of bounded rationality goes back to Herbert Simon (*see e.g.*, *A Behavioral Model of Rational Choice*, 69 Quarterly J. Econ. 99 (1955)). For a somewhat different approach to the concept than that of Kahneman and Tversky (and that of behavioral finance generally), *see* Gerd Gigerenzer, Rationality for Mortals: How People Cope with Uncertainty (2008). For an explanation of the difference between the two approaches, *see* Barberis & Thaler, *supra* note 4 at 1 (note 1).

[44] Sara B. Moeller, Frederik P. Schlingemann & Rene Stulz, *Wealth Destruction on a Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave*, 60 J. Fin. 757 (2008). The authors arrive at this number by measuring returns over the 3-day window surrounding announcement of the acquisition. Note that the losses in share value do not necessarily imply a corresponding loss in firm value, since the market may have overreacted and the acquisitions may have led the market to reconsider the stand-alone valuations of the announcing firms. *Id.* at 781.

[45] *See* Richard Roll, *The Hubris Hypothesis of Corporate Takeovers*, 59 J. Bus. 197, 200 (1986); Ulrike Malmendier & Geoffrey Tate, *Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction*, 89 J. Fin. Econ. 20 (2008).

[46] To be sure, not all of these acquisitions will have been subject to shareholder approval. Deals can be structured in a number of ways, and whether shareholder approval is required will often depend on the chosen structure. Still, it is reasonable to assume that at least some of the deals that caused large losses were, in fact, approved by shareholders. *See* Moeller et al., *supra* note 44 at 777 (finding that equity is used more often with large loss deals than with other deals, which increases the probability that at least some of these deals required shareholder approval); Ehud Kamar, *Does Shareholder Voting Matter?*, 15 (2006) (discussing deal structures and empirically studying non-hostile acquisitions by listed US firms announced between 1995 and 2003, and finding that that 666 public target acquisitions required approval and 217 did not). Available at http://law.bepress.com-/cgi/viewcontent.cgi?article-=1799&context=alea.

[47] T. Gilovich, R. Vallone & A. Tversky, *The Hot Hand in Basketball: On the Misperception of Random Sequences*, 17 Cognitive Psychology 295 (1985). *See also* Nassim Nicholas Taleb, Fooled by Randomness: The Hidden Role of Chance in the Markets and Life (New York: Thomson Texere 2004).

[48] Moeller et al., *supra* note 44 at 777.

[49] To be sure, the global financial crisis was a major if not the most important cause of Fortis's demise, but nevertheless the acquisition of ABN Amro, in particular the financing burden, is widely seen as having contributed to its demise. *See* VERLOREN KREDIET: FINAL REPORT OF THE DUTCH PARLIAMENTARY INQUIRY INTO THE FINANCIAL CRISIS, *Kamerstukken* 31 980, nrs. 3-4, 85 (2010); Vidya Ram, Fortis Suffers ABN Pain, Forbes.com, June 26, 2008. For a detailed account of the events preceding and following the acquisition of ABN Amro by Fortis, *see* STEFAAN MICHIELSEN & MICHAEL SEPHIHA, BANKROET (Tielt, Terra Lannoo 2009).

[50] Julia Werdigier, Fortis Shareholders Back ABN Amro Bid, New York Times, August 7, 2007.

[51] *See e.g.* Fortis, RBS and Santander Proposed Offer for ABN AMRO, Press release dated 29 May 2009 at 14 (emphasizing strong track record of successful integrations of acquired businesses, including delivery of promised transaction benefits).

[52] Werdigier, *supra* note 50.

[53] Reuters, Support Seen for Fortis Share Issue, August 1, 2007; Fortis Krijgt Steun Adviesbureaus voor Overname ABN, Het Financieele Dagblad, August 1, 2007. The same bias might help to explain the overwhelming support for the acquisition of ABN Amro by the shareholders of another member of the bidding consortium, The Royal Bank of Scotland (RBS). RBS was led by Sir Fred Goodwin, who also had a strong track record of prior acquisitions. Again, this track record played a major role in securing shareholder support, and again, RBS suffered greatly following the acquisition of ABN Amro. Said one commentator, 'Fred had never failed until he failed.' Scots On The Rocks, The Economist, February 27, 2010.

[54] Shiller, *supra* note 32 at 123. *See also* GEORGE AKERLOF & ROBERT J. SHILLER, ANIMAL SPIRITS (Princeton University Press 2009).

[55] *Id.* at 106, 120.

[56] Mattel, Cutbacks in Retailer Buying; Mattel and The Learning Company Agree to Merge, Press release dated December 14, 1999 (quoting CEO Jill Barad as saying that '[t]he combined company has a hidden strategic asset. … we are positioned to create a unique on-line connection with our consumers.')

[57] *Id.*

[58] Mattel, Shareholders Approve Merger of Mattel and The Learning Company, Press release dated May 7, 1999.

[59] Justin J. Wolfers, *Are Voters Rational? Evidence From Gubernatorial Elections* 1 (2006). Stanford GSB Working Paper No. 1730. Available at http://ssrn.com/abstract=305740.

[60] *Id.* at 17 (finding also that voters in procyclical states 'are systematically fooled into re-electing incumbets during national booms, only to dump them during national recessions.')

[61] *Id.*

[62] Raymond J. Fisman, Rakesh Khurana & Matthew Rhodes-Kropf, *Governance and CEO Turnover: Do Something or Do the Right Thing?* (2005) (examining 139 CEO firings between 1980 and 1996 and obtaining results suggesting that 'in circumstances where the CEO might be expected to be dismissed based on previous performance, but was retained, subsequent performance is stronger in firms with entrenched boards that may have been able to resist shareholder pressure to dismiss the CEO.') Harvard Business School Working Paper, No. 05-066. Available at http://ssrn.com/abstract=656085. Additional evidence suggesting that attribution errors are made in the corporate context is presented by a study of the behavior of directors charged with rewarding CEO's, which concludes that the average Forbes-500 firm rewards its CEO 'as much for luck as it does for a general movement in performance.' Marianne Bertrand & Sendhil Mullainathan, *Are CEOS Rewarded for Luck? The Ones Without Principals Are*, 116 Quart. J. Econ. 901, 908 (2001) (studying the pay and performance for the 51 largest American oil companies between 1977 and 1994 and finding that pay changes and oil changes correlate quite well, which is suggestive of pay for luck, and examining a broader dataset to determine whether the observations can be generalized and finding that they can).

[63] The three examples of bounded rationality suggest it is unlikely that each shareholder votes for the correct answer with a probability exceeding 0.5. Some might argue that this need not undermine the usefulness of the Jury Theorem as a theoretical foundation for corporate voting since the Theorem also holds if the *average* competence level exceeds 0.5 (*see* Thompson & Edelman, *supra* note 14 at 32). While this may be true as a statistical matter, applied to corporate voting it confronts us with the problem that we really have no reliable way of measuring investors' competence levels, and thus to determine whether the average competence level exceeds 0.5. To illustrate this point, imagine a company with three shareholders, two biased retail shareholders and one rational institutional shareholder. How do we assign probabilities of voting for the correct answer? If

we deem retail investors to vote for the correct answer with probability 0.4 and the institutional investor to vote for the correct answer with probability 0.8, the average competence level exceeds 0.5. But if we deem the retail investors to vote for the correct answer with probability 0.3 and the institutional investor to vote for the correct answer with probability 0.7, the average competence level is *below* 0.5. In the absence of suitable criteria, the task of assigning probabilities remains somewhat arbitrary in nature. And although it might be objected that the example doesn't correspond to reality because the majority of the shares in public firms are not held by retail investors but by institutional investors, this only shifts our attention to a second problem, which is that institutional investors too may be irrational voters. *See* Shiller, *supra* note 32 at 33 (noting that 'professional investors are not immune from the effects of popular investing culture that we observe in individual investors, and many [cultural and psychological factors] no doubt influence their thinking as well.')

[64] Vermeule, *supra* note 16 at 6.

[65] Nicholas R. Miller, *Information, Individual Errors, and Collective Performance: Empirical Evidence on the Condorcet Jury Theorem*, 5 Group Decision and Negotiation 211, 214 (1996) ('noting that standard Jury Theorem variants assume that individual choices are statistically independent'); Thompson & Edelman, *supra* note 14 at 150 (referring to the condition of voter independence but not explaining why this condition is fulfilled in the case of voting shareholders. In a footnote, Thompson & Edelman refer to a study by Krishna Ladha (cited *infra* note 66) suggesting that one can relax the independence of the voters to allow for some level of correlation, but they do not offer an argument for why we can assume that voting shareholders are sufficiently independent).

[66] Krishna K. Ladha, *The Condorcet Jury Theorem, Free Speech, and Correlated Votes*, 36 Am. J. Pol. Sc. 617, 621 (1992).

[67] *See e.g.* OECD PRINCIPLES OF CORPORATE GOVERNANCE 38 (2004) (shareholders should be encouraged to co-operate and co-ordinate to overcome collective action problems).

[68] Sunstein, *supra* note 13 at 54. *See also* Jeremy Waldron, *The Wisdom of the Multitude: Some Reflections on Book III Chapter 11 of the Politics*, 23 Pol. Theory 563 (1995) (discussing the epistemic benefits of deliberation as described by Aristotle). The idea of the wisdom of the multitude resonates in one court's characterization of shareholder resolutions as the 'fruit of deliberation.' Netherlands Supreme Court, 15 July 1968, NJ 1969, 101 (*Wijsmuller*).

[69] Vermeule, *supra* note 16 at 6, 18-23. *See also* Sunstein, *supra* note 13 at 54 at 78-80 (discussing positive and negative effects of deliberation on judgments); Miller, *supra* note 65 at 214 (noting that 'deliberation and mutual influence can be thought of as having two effects: first, they increase average competence …, and second, they reduce the 'effective number' of group members. The first effect increases collective competence, while the second reduces it, so the net effect is difficult to predict.'); Page, *supra* note 38 at 213 (demonstrating that deliberation acts as a double-edged sword by increasing individual accuracy but reducing diversity within the group).

[70] What we do know is that the Jury Theorem requires statistical independence, not causal independence. This means that voter A and voter B's judgments are allowed to both depend on the same exogenous factor (such as the judgment of an opinion leader), as long as their judgments do not depend on each other. If their judgments do depend on each other, for example, if B always bases his vote on how A votes, statistical independence is lost. *See* David M. Estlund, *Opinion Leaders, Independence, and Condorcet's Jury Theorem*, 36 Theory & Decision 131, 132-135 (1994). Unfortunately, we have limited understanding of whether and when causal dependence undermines statistical independence. *See* Vermeule, *supra* note 16 at 6.

[71] Lu Hong & Scott E. Page, *Problem Solving by Heterogeneous Agents*, 97 J. Econ. Theory 123 (2001). *See also* Page, *supra* note 38 at 197 (offering a detailed explanation).

[72] This is a simplification of Hong and Page's sophisticated account of cognitive diversity, which deserves a more detailed discussion than is possible within the space constraints of this paper.

[73] Lu Hong & Scott E. Page, *Interpreted and Generated Signals*, 144 J. Econ. Theory 2174 (2009) (establishing the negative correlation result for independent interpreted signals). *See also* Page, *supra* note 38 at 197-235.

[74] Jack L. Treynor, *Market Efficiency and the Bean Jar Experiment*, 43 Fin. Analysts J. 50 (1987). *See also* Gilson & Kraakman, *supra* note 3 at 581 (noting that '[a]lthough each trader's own forecasts are skewed by the unique constraints on his or her own judgment, other traders will have offsetting constraints. As trading proceeds, the random biases of individual forecasts will cancel one another out, leaving price to reflect a single, best-informed aggregate forecast.')

[75] Treynor, *supra* note 74 at 76.

[76] Shiller, *supra* note 32 at 156. *See also id.* at 157 (noting that '[i]f the millions of people who invest were all truly independent of each other, any faulty thinking would tend to average out, and such thinking would have no effect in prices. But if less-than-mechanic or irrational thinking is in fact similar over large numbers of people, then such thinking can indeed be the source of stock market booms and busts.')

[77] Gilson & Kraakman, *supra* note 3 at 582 (noting, with respect to the problem that shared prejudice among traders would render individual forecasting errors mutually reinforcing, that '[c]omplete independence, of course, is unlikely in real markets, but so is widespread mutual dependence where it contradicts the independent judgments of many traders.')

[78] Andrei Shleifer & Lawrence H. Summers, *The Noise Trader Approach to Finance*, 4 J. Econ. Perspectives 19, 23 (1990).

Careful observers have pointed out that even if investors suffer from the same cognitive biases, this doesn't necessarily mean they make the same mistakes. Michael Mauboussin notes that even if investors are overconfident in their own trading skills and start trading when it would be rational to refrain from doing so, as long as degrees of overconfidence are spread randomly across the buyers and sellers of a security, the effects offset each other. Michael J. Mauboussin, *Capital Ideas Revisited: the Prime Directive, Sharks, and the Wisdom of the Crowds* (Legg Mason Capital Management), March 30, 2005 at 10. But notice that the biases identified earlier as potentially affecting individual voting behavior are unlikely to be spread randomly across shareholders who vote for the proposed acquisition and shareholders who vote against. Rather, each bias is likely to steer voting behavior in a particular direction.

[79] BRYAN CAPLAN, THE MYTH OF THE RATIONAL VOTER: WHY DEMOCRACIES CHOOSE BAD POLICIES 36 (Princeton University Press 2007).

[80] *Id.* at 11.

[81] Shiller, *supra* note 32 at 160.

[82] *Id.* at 70.

[83] David Hirshleifer & Siew Hong Teoh, *Herding and Cascading in Capital Markets: A Review and Synthesis*, 9 European Fin. Manage. 25, 48 (2003).

[84] *Id.* at 47 (discussing the endorsement effect).

[85] *See* Gilson & Kraakman, *supra* note 3 at 572 (casting derivate trading as a mechanism of market efficiency). *See also* Michael C. Schouten, *The Case for*

Mandatory Ownership Disclosure, 16 Stan. J. L. Bus. & Fin. 123, 140 (2010) (explaining how ownership disclosure rules enable derivative trading).

[86] *See* Gilson & Kraakman, *supra* note 3 at 582 (noting that '[w]idespread trade or price decoding would violate the independence condition.')

[87] *See* Shiller, *supra* note 32 at 160 (noting that cascades theories 'are theories of the failure of information about true fundamental value to be disseminated and evaluated.')

[88] Vermeule, *supra* note 16 at 28. *See also* Shiller, *supra* note 32 at 160 (noting that according to cascade theories, 'the popular notion that the level of market prices is the outcome of a sort of vote by all investors about the true value of the market is just plain wrong. Hardly anyone is really voting. Instead people are rationally choosing not to, as they see it, waste their time and effort in exercising their judgment about the market, and thus choosing not to exert any independent impact on the market.')

[89] *See* Easterbrook & Fischel, *supra* note 5 at 402 (noting that 'none of the voters has the appropriate incentive at the margin to study the firm's affairs and vote intelligently.') *See also* ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY (New York: Harper 1957).

[90] Shiller, *supra* note 32 at 44, 169 (noting that '[t]here is a willingness to free-ride here – to suppose that the experts have thought trough the apparent contradictions and therefore to assume that the experts know why they are not in fact contradictions at all.')

[91] On the impact of opinion leaders, *see* Bernard Grofman, Guillermo Owen & Scott Feld, *Thirteen Theorems in Search of the Truth*, 15 Theory & Decision 261, 273 (1983); Kai Spiekermann & Robert E. Goodin, *Courts of Many Minds* (2010). Available at http://ssrn.com/abstract=1644530; Estlund, *supra* note 70.

[92] ALBERT O. HIRSCHMAN, EXIT, VOICE AND LOYALTY: RESPONSES TO DECLINE IN FIRMS, ORGANIZATIONS AND STATES (Harvard University Press 1970). *See also* Vermeule, *supra* note 16 at 27 (discussing endogenous effects of numbers on competence).

[93] *See* Kamar, *supra* note 46 at 42 (studying 666 public target acquisitions requiring shareholder approval and finding that shareholders voted the proposal acquisitions down only once); Timothy R. Burch, Angela G. Morgan & Jack G. Wolf, *Is Acquiring-Firm Shareholder Approval in Stock-for-Stock Mergers Perfunctory?*, 33 Fin. Manage. 45, 51 (2004) (examining 209 acquiring-firm merger proxy votes during 1990-2000 and finding approval rate of 98%).

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[94] *See* Page, *supra* note 38 at 208. *See also* Vermeule, *supra* note 16 at 24 (noting that 'a suitably specified decision would, in principle, trade off the benefits of increased competence against the cost of increased correlation, in order to maximize the epistemic power of the notional group whose majority view is to be taken into account.')

[95] Gregory La Blanc & Jeffrey J. Rachlinski, *In Praise of Investor Irrationality*, in: THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR 545 (Francesco Parisi & Vernon Smith eds., Stanford University Press 2005).

[96] *See e.g.* article 6 of the European Shareholders' Rights Directive (allowing Member States to require shareholders to hold a minimum stake of up to 5% before they are entitled to put an item on the agenda).

[97] *See* Michael C. Schouten, *The Political Economy of Cross-Border Voting in Europe*, 16 Colum. J. Europe. L. 1 (2009 (discussing barriers to cross-border voting in Europe and offering an interest group explanation for policymakers' failure to remove these barriers).

[98] For a survey of the literature on social activism, *see* David Yermack, *Shareholder Voting and Corporate Governance*, 2 Ann. Rev. of Fin. Econ. (forthcoming 2010).

[99] Ferguson, *supra* note 18 at 131.

[100] *Id.*

[101] *See e.g.* Andrei Shleifer & Robert Vishny, *A Survey of Corporate Governance*, 52 J. Fin. 737, 758 (1997); Iman Anabtawi, *Some Skepticism About Increasing Shareholder Power*, 53 UCLA L. Rev. 1, 31 (2006); Grant M. Hayden & Matthew T. Bodie, *One-Share One-Vote and the False Promise of Shareholder Homogeneity*, 30 Card. L. Rev. 445, 477-98 (2008).

[102] *See e.g.* EUROPEAN COMMISSION, A COMMON EUROPEAN APPROACH TO SOVEREIGN WEALTH FUNDS 4, 9 COM (2008) 115 final (expressing concern that sovereign wealth fund investment in certain sectors could be used for ends other than for maximising return).

[103] To prevent this from happening, some commentators have suggested that voting rights of sovereign wealth funds be limited. *See* Ronald J. Gilson & Curtis J. Milhaupt, *Sovereign Wealth Funds and Corporate Governance: A Minimalist Response to the New Mercantilism*, 60 Stan. L. Rev. 1345, 1352 (2008).

[104] Ben Hall, Paris Piles Pressure on Renault, Financial Times, January 13, 2010.

[105] *See also* Marcel Kahan & Edward Rock, *When the Government is the Controlling Shareholder* (2010) (describing potential conflicts of interest). New York University Law & Economics Research Paper No. 10-20. Available at http://ssrn.com/abstract=1616266.

[106] For a statistical model of group decision making when voters have heterogeneous preferences, *see* Miller, *supra* note 65 and Nicholas Miller, Information, Electorates, and Democracy: Some Extensions and Interpretations of the Condorcet Jury Theorem, in INFORMATION POOLING AND DECISION MAKING (Bernard Grofman & Guillermo Owen, eds. 1986). *See also supra* note 29 (contrasting information aggregation against preference aggregation).

[107] There is some indirect evidence supporting the notion that conflicted voting affects voting efficiency. Empirical research shows that outside investors discount the shares of firms with controlling shareholders, taking into account (1) the extent to which the risk of private benefit extraction is exacerbated by disproportionate voting power (*see* Stijn Claessens, Simeon Djankov, Joseph P.H. Fan & Larry H.P Lang, *Disentangling the Incentive and Entrenchment Effects of Large Shareholdings*, 57 J. Fin. 2741 (2002)) and (2) the extent to which it is mitigated by protective legal rules (*see* Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer & Robert Vishny, *Investor Protection and Corporate Valuation*, 57 J. Fin. 1147 (2002)). These findings should be interpreted with some caution in view of the criticism the law and finance literature has been subject to, even if most of the criticism seems to have focused on the claims that law matters for stock market development and that legal origins explain differences in legal protection across countries rather than the claim that law matters for firm valuation. *See, e.g.* John Armour, Simon Deakin, Prabirjit Sarkar, Mathias Siems & Ajit Singh, *Shareholder Protection and Stock Market Development: An Empirical Test of the Legal Origins Hypothesis*, 6 J. Emp. L. Stud. 359 (2009).

[108] The following example is taken from Bilge Yilmaz, *Strategic Voting and Proxy Contests* (1999). Rodney L. White Center for Financial Research Working Paper No. 05-00. Available at http://ssrn.com/abstract=228457.

[109] Yilmaz, *supra* note 108. *See also* Jorgen Wit, *Rational Choice and the Condorcet Jury Theorem*, 22 Games and Economic Behavior 364, 375 (1998) (modeling strategic voting and showing that in equilibrium, the 'less' informed types strategically compensate the bias created by the information structure, which allows 'more' informed types to put more weight in the collective decision).

[110] E. Maug & K. Rydqvist, *Do Shareholders Vote Strategically? Voting Behavior, Proposal Screening, and Majority Rules*, 13 Rev. Fin. 47 (2009).

[111] Gilson and Schwarz refer to the group of shareholders that is biased toward management as the 'management group', which is composed of incumbent managers and those who would do better if the share maximizing option were defeated including possibly unions, suppliers and customers. Gilson & Schwartz, *supra* note 17 at 15, 25. The management group may also include brokers, who tend to vote in line with management. *See e.g.* Jennifer E. Bethel & Stuart L. Gillan, *The Impact of the Institutional and Regulatory Environment on Shareholder Voting*, 31 Fin. Manage. 29, 42, 44 (2002) (studying a sample of 1500 S&P 500 during the 1998 proxy season and finding that 'routine' management proposals received, on average, 8% more votes favorable to management than 'non-routine' proposals).

[112] *See* Ernst G. Maug, *How Effective is Proxy Voting? Information Aggregation and Conflict Resolution in Corporate Voting Contests* (1999) (showing that strategic voting can improve information aggregation but noting that some information is lost since shareholders may ignore their own information and base their decisions only on the information collected by other shareholders). Available at http://ssrn.com/abstract=157693. On the dual effect of strategic voting, *see also* David Austen-Smith & Jeffrey S. Banks, *Information Aggregation, Rationality, and the Condorcet Jury Theorem*, 90 Am. Pol. Sc. Rev. 34 (1996); Timothy Feddersen & Wolfgang Pesendorfer, *Voting Behavior and Information Aggregation in Elections with Private Information*, 65 Econometrica 1029 (1997), and Spiekermann & Goodin, *supra* note 91.

[113] *See* Andrei Shleifer & Robert W. Vishny, *The Limits of Arbitrage*, 1 J. Fin. 35 (1997).

[114] Sunstein, *supra* note 13 at 106.

[115] Thus, free rider problems do not only limit incentives for shareholders to invest in monitoring but also to engage in arbitrage.

[116] Colleen A. Dunlavy, *Social Conceptions of the Corporation: Insights from the History of Shareholder Voting Rights*, 63 Wash. & Lee L. Rev. 1347, 1354 (2006).

[117] *See* Levmore, *supra* note 14 at 143 (noting that 'corporate shareholders can purchase stock … in order to demonstrate their preferences.') *See also* Sunstein, *supra* note 13 at 130 (noting that '[o]ne reason for the current success rate [of prediction markets] is that that accurate answers can emerge even if only a small percentage of participants have good information … Deliberating groups often

operate on a principle of 'one person, one vote'; but in a prediction market, intense preferences, based on really good information, can be counted as such.')

[118] *See* Sanford J. Grossman & Oliver D. Hart, *The Allocational Role of Takeover Bids in Situations of Asymmetric Information*, 36 J. Fin. 253, 254 (1982) (noting that '[i]f an outsider has information which indicates that a profit could accrue from a change in managerial decisions … [t]he only way he can make a profit from his information may be to buy the firm and change the production decision.')

[119] Standard & Poor's 500 Factsheet, March 31, 2010.

[120] Jennifer E. Bethel, Gang Hu & Qinghai Wang, *The Market for Shareholder Voting Rights Around Mergers and Acquisitions: Evidence from Institutional Daily Trading and Voting*, 15 J. Corp. Fin. 129 (2009). The study shows that institutions buy shares in firms whose prices fall the most when the deals are announced, and shows a positive relation between buying by institutions and voting turnout and a negative relation between buying by institutions and investor support for merger proposals. *Id.* at 140. Although the data does not allow attribution of causality, one possible interpretation of these results is that institutional investors buy shares to influence the voting process such that proposals to enter into value destroying mergers are rejected. *Id.* at 135.

[121] *Id.* at 136. The figure reports the difference in percentages between trading activity on each day (relative to shares outstanding) and the average daily trading activity for the 20-day period surrounding the voting record date.

[122] *Kurz v. Holbrook*, *supra* note 22 at 69 (holding that 'Delaware law does not restrict a soliciting party from buying shares … to bolster the solicitation's chance of success.') Aff'd, *Crown Emak Partners v. Kurz*, No. 64, 2010 at 22 (Del. Supr. Court April 21, 2010).

[123] Exchange Act Rule 13d-1(a), 17 C.F.R. § 240.13d-1 (2005).

[124] Exchange Act Rule 16a-2, 17 C.F.R. § 240.16a-2 (2005). Under this rule, company insiders (officers, directors or shareholders with a stake that exceeds 10%) are required to return any profits made from the purchase and sale of company stock if both transactions take place within a six-month period.

[125] *See* Douglas R. Cole, *E-Proxies For Sale? Corporate Vote Buying in the Internet Age*, 76 Wash. L. Rev. 793, 808 (2001) (noting that proxy solicitation gives shareholders with superior information a method for distributing it to other shareholders).

[126] *See generally* Bebchuk & Hart, *supra* note 17; Gilson & Schwarz, *supra* note 17; Lucian A. Bebchuk, *The Myth of the Shareholder Franchise*, 93 Va. L. Rev. 675, 668 (2007).

[127] Bebchuk, *id.* at 684. Other types of contests were also rare. *Id.* at 686.

[128] Henry Manne, *Some Theoretical Aspects of Share Voting*, 64 Col. L. Rev. 1427, 1444 (1962).

[129] Robert C. Clark, *Vote Buying and Corporate Law*, 29 Case W. Res. L. Rev. 776, 797 (1979). *See also* Thomas J. Andre, Jr., *A Preliminary Inquiry Into the Utility of Vote Buying in the Market for Corporate Control*, 63 S. Cal. L. Rev. 533 (1990) (examining how a bidder might purchase votes as the first step toward acquiring the entire equity interest in its target and concluding that 'assuming that [the bidder] increases share values, vote buying can lead to additional gains, the bulk of which are captured by the public shareholders'); Richard L. Hasen, *Vote Buying*, 88 Cal. L. Rev. 1323, 1349-1353 (2000) (acknowledging the potential of efficiency gains from facilitating corporate vote buying); Levmore, *supra* note 14 at 138 (noting that an ability to purchase voting rights 'can provide a useful safety valve where defensive tactics go too far in blocking desirable takeovers'); Zvika Neeman & Gerhard O. Orosel, *On the Efficiency of Vote Buying When Voters Have Common Interests*, 26 Int'l Rev. L. & Econ. 536 (2006) (building a model to examine the conditions under which vote buying may promote efficiency in an environment where voters have identical preferences and producing results suggesting that vote buying may prove beneficial in the market for corporate control).

[130] Understandably, there is no empirical evidence on the cost of buying votes from other shareholders by instructing them how to vote, and much will depend on the specifics of the case. In addition to the consideration, the arbitrageur will have to incur the cost of finding one or more shareholders willing to sell their votes as well as transaction costs.

[131] *Schreiber v. Carney,* 447 A.2d 17 (Del. Ch. 1982). In this section we focus on legal constraints imposed by case law, but the above legal constraints imposed by federal securities laws apply equally. *See supra* notes 123, 124 and accompanying text.

[132] *See* Mike Burkart & Samuel Lee, *One Share-One Vote: the Theory*, 12 Rev. Fin. 1, 3 (2008) (noting that '[l]everaging a blockholder's voting power … enables her to take self-serving actions, such as diverting corporate resources for less productive private purposes'); *In re IXC Commc's, Inc. S'holders Litig.*, 1999 WL 1009174, at 8 (Del. Ch. Oct. 27, 1999) (stating that 'generally speaking, courts

closely scrutinize vote-buying because a shareholder who divorces property interest from voting interest (…) fails to serve the 'community of interest' among all shareholders, since the 'bought' shareholder votes may not reflect rational, economic self-interest arguably common to all shareholders.')

In a recent decision, the District Court of the Southern District of New York has expressed the same concern in the context of bankruptcy, when shareholders are substituted for creditors when it comes to voting on key issues. The court found that DISH Network Corporation, a Chapter 11 debtor of communication company DBSD North America, '[d]id not purchase and vote its claim in order to gain financially by way of a distribution in this case. Rather … its purpose was as a strategic investor'. Accordingly, the court concluded that DISH's votes, cast to reject the restructuring plan, should be disregarded per section 1126 (e) of the Bankruptcy Code. *In re DBSD North America, Inc.*, 421 B.R. 133 (Bankr. S.D.N.Y. 2009). Aff'd, *In re DBSD North America, Inc.*, No. 09-CV-10156, Docket Item No. 55 (S.D.N.Y. Mar. 24, 2010).

[133] *Schreiber v. Carney*, *supra* note 131.

[134] *Id.* at 10. Notice that the court in Schreiber refers to voting agreements with 'the object or purpose' to defraud or disenfranchise other shareholders. Later courts seem to have focused less on intent and more on actual result. *See e.g. Kurz v. Holbrook*, *supra* note 22 at 65 ('[v]ote buying is disenfranchising when it delivers the swing votes.')

[135] *Kurz v. Holbrook*, *supra* note 22 at 65.

[136] *But see* Kevin C. Cunningham, *Examination of Judicial Policy on Corporate Vote Buying in the Context of Modern Financial Instruments*, 64 N.Y.U. Ann. Surv. Am. L. 293, 315 (2008) (noting that 'intrinsic fairness as an inquiry in many recent cases has faded to the point that it is not even mentioned.')

[137] *Kurz v. Holbrook*, *supra* note 22 at 72 (finding that Kurz had no reason to vote 'other than in the manner he thinks would best maximize the value of EMAK as a corporation' and concluding that the voting of the relevant shares therefore is not a legal wrong).

[138] The Delaware Supreme Court approves of Vice-Chancellor Laster's general treatment of vote buying in *Kurz*, but seems to take a somewhat less nuanced approach in holding that in the case at hand there was no improper vote buying (merely) 'because the economic interests and the voting interests of the shares remained aligned since both sets of interests were transferred' by the vote buying agreement. *Crown Emak Partners v. Kurz*, *supra* note 122 at 28.

[139] *See* Shaun Martin & Frank Partnoy, *Encumbered Shares*, 2005 U. Ill. L. Rev. 775 (2005); Henry T. Hu & Bernard S. Black, *The New Vote Buying: Empty Voting and Hidden (Morphable) Ownership*, 79 S. Cal. L. Rev. 811 (2006).

[140] *Id.*

[141] *See e.g.* Ekkehart Boehmer, Charles M. Jones & Xiaoyan Zhang, *Which Shorts are Informed?*, 63 J. Fin. 491 (2008) (results are strongly consistent with the notion that short sellers possess important information and that their trades are important contributors to more efficient stock prices).

[142] *See* EDWARD CHANCELLOR, A SHORT HISTORY OF THE BEAR (London, David Tice & Co. 2001).

[143] *See* Douglas W. Diamond & Robert E. Verrecchia, *Constraints on Short-Selling and Asset Price Adjustment to Private Information*, 18 J. Fin. Econ. 227 (1987); Arturo Bris, William N. Goetzmann & Ning Zhu, *Efficiency and the Bear: Short Sales and Markets around the World*, J. Fin. (forthcoming); Allessandro Beber & Marco Pagano, *Short-Selling Bans around the World: Evidence from the 2007-09 Crisis* (2010). Available at http://ssrn.com/abstract=1502184.

[144] Susan E. K. Christoffersen, Christopher C. Geczy, David K. Musto & Adam V. Reed, *Vote Trading and Information Aggregation*, 62 J. Fin. 2897 (2007). *See also* Bruce H. Kobayashi & Larry E. Ribstein, *Outsider Trading as an Incentive Device*, 40 U.C. Davis L. Rev. 21, 44 (2006) (arguing that the new vote buying can be viewed as a way for the control rights associated with the votes to flow to the person with the most reliable information); Onnig H. Dombalagian, *Can Borrowing Shares Vindicate Shareholder Primacy?*, 42 U.C. Davis L. Rev. 1231, 1289 (2009) (arguing that facilitating empty voting by committed shareholders may alleviate collective shareholder action problems and that a market for borrowing public shares could improve shareholder decision-making).

[145] *Id.* at 2910. The number of shares loaned by the author's data provider, as a percentage of shares outstanding, is on the vertical axis. The sample is 6,764 record dates of CSRP (Centre for Research in Equity Prices) stocks from 1998 to 1999 and broken into all shares in the CSRP (middle line), all shares in the Russel 3000 (top line) and those shares in the CSRP but not the Russel 3000 (bottom line). Consistent with the findings of the study by Bethel et al. discussed *supra* note 120 and accompanying text, Christoffersen et al. find that vote trading corresponds to opposition to management proposals. *Id.* at 2922. They find that vote trading grows as information asymmetry (as proxied by the bid-ask spread) increases, which is consistent with their hypothesis that the misdistribution of information

across investors is an important incentive to rearrange votes across investors. *Id.* at 2915.

[146] *See supra* note 130 and accompanying text.

[147] *See* Martin & Partnoy, *supra* note 139 at 809 (noting that '[t]he assumption that arbitrageurs and other shareholders share the same incentives permits arbitrageurs to profit by encouraging or advancing suboptimal economic arrangements that destroy the value of shares.') *See also* Levmore, *supra* note 14 at 139 (pointing at the risk that shareholders sell their votes too cheaply in the absence of competing buyers).

[148] *Kurz v. Holbrook*, *supra* note 22 at 64. The same principle presumably applies in the context of bankruptcy, where the new vote buying enables empty creditor voting (*see* Henry Hu & Bernard Black, *Equity and Debt Decoupling and Empty Voting II: Importance and Extensions*, 156 U. Penn. L. Rev. 625, 728 (2008)). A creditor may, for example, hedge his financial exposure through credit default swaps. Using the same logic as the court uses in DBSD (*see supra* note 132), votes cast by empty creditors who vote insincerely risk being disregarded just like votes cast by empty voters who vote insincerely. *See* Patrick D. Fleming, *Credit Derivatives Can Create a Financial Incentive for Creditors to Destroy a Chapter 11 Debtor: Section 1126(e) and Section 105(a) Provide a Solution*, 17 Am. Bankr. Inst. L. Rev. 189 (2009).

[149] *Kurz v. Holbrook*, *supra* note 22 at 71. *See also id.* at 71, 72 (noting that 'Kurz's only interest lies in how EMAK performs' and that 'Kurz has no countervailing short interest; he is overwhelmingly long EMAK's stock.')

[150] *See* Michael C. Schouten & Mathias M. Siems, *The Evolution of Ownership Disclosure Rules Across Countries* (forthcoming, J. Corp. L. Stud. 2010). Centre for Business Research (CBR) of the University of Cambridge Working Paper 393. Available at http://ssrn.com/abstract=1434144.

[151] *See* Schouten, *supra* note 85.

[152] Hu & Black, *supra* note 148 at 697 (proposing, among others, to permit firms to modify their charters to limit voting rights based on a shareholder's economic ownership and that major shareholders be required to attest when voting that the voted shares do not exceed their economic ownership by a specified percentage).

[153] Henry T.C. Hu & Bernard Black, *Debt, Equity, and Hybrid Decoupling: Governance and Systemic Risk Implications*, 14 Eur. Fin. Manage. J. 663, 668 (2008) (noting that '[t]here are both pro- and anti-efficiency arguments specific to empty voting.')

[154] Merritt B. Fox, Lawrence R. Glosten & Paul Tetlock, *Short Selling and the News: A Preliminary Report on an Empirical Study* (2010). Columbia Law School Working Paper No. 364. Available at http://ssrn.com/abstract=1543855.

[155] *Id.* at 57 (noting the current absence of evidence concerning the relative roles of false-news-spreading short selling versus true-news-spreading short selling).

[156] A recent theoretical study on empty voting by Alon Brav and Richmond Mathews also suggests that we should focus not only on abusive vote buying but also – and perhaps especially – on beneficial vote buying. Their model is heavily stylized, but the finding that trading between record and voting dates can improve efficiency despite the fact that traders sometimes end up selling short and then vote to decrease firm value is broadly consistent with the above evidence suggesting that short selling can improve efficiency despite the fact that apparently short sellers sometimes sell short and then spread false news to decrease firm value. Brav and Mathews correctly observe that there is '[a] trade off between increased information efficiency and the cost of possible manipulations via empty voting,' and absent systematic evidence to the contrary there is no reason to believe that the costs of possible manipulations via empty voting exceed the benefits from increased information efficiency. Alon Brav & Richmond D. Mathews, *Empty Voting and the Efficiency of Corporate Governance*, 2 (2009). AFA 2009 San Francisco Meetings Paper. Available at http://ssrn.com/abstract=1108632.

[157] SECURITIES EXCHANGE COMMISSION, CONCEPT RELEASE ON THE U.S. PROXY SYSTEM 136, No. 2010-122 (July 14, 2010).

[158] *See* references *supra* note 143.

[159] *See also* Thompson & Edelman, *supra* note 14 at 166 (advocating judicial review of empty voting to safeguard the principle that voting requires a basic alignment with the collective interest); Kobayashi & Ribstein, *supra* note 145 at 45 (doubting the efficiency of broad substantive regulation of vote buying because vote buyers may have interests consistent with those of other shareholders).

[160] *See* Hu & Black, *supra* note 139 at 864; Marcel Kahan & Edward B. Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 U. Pa. L. Rev. 1021, 1077 (2007); Thompson & Edelman, *supra* note 14 at 156; Schouten, *supra* note 85 at 175. *See also* EUROPEAN CORPORATE GOVERNANCE FORUM, STATEMENT ON EMPTY VOTING AND TRANSPARENCY OF SHAREHOLDER POSITIONS 2 (noting that transparency may spur appropriate behaviour).

[161] *See* Schouten, *supra* note 85 at 145; Emilios Avgouleas, *A New Framework for the Global Regulation of Short Sales*: *Why Prohibition is Inefficient and Disclosure Insufficient*, 16 Stan. J. L. Bus. & Fin. [58] (2010). Some regulators have explicitly cited this as a reason to require transparency of short sales. *See* FINANCIAL SERVICES AUTHORITY, EXTENSION OF THE SHORT SELLING DISCLOSURE OBLIGATION 9 (CP 09/15) (2009) (noting that 'transparency of significant short positions and the identity of significant short sellers … provides insight into short sellers' price movement expectations and can improve pricing efficiency (if the information is correctly interpreted)'); COMMITTEE OF EUROPEAN SECURITIES REGULATORS, MODEL FOR A PAN-EUROPEAN SHORT SELLING DISCLOSURE REGIME 12 (March 2010) (noting the same beneficial effect as well as the risk that disclosure leads to an increase of short selling due to herding).

[162] *BusinessWeek*, March 18, 2002 at 62.

[163] Jie Cai, Jacqueline L. Garner & Ralph A. Walkling, *Electing Directors*, 5 J. Fin. 2389, 2401 (2009). *See also* Stephen J. Choi, Jill E. Fisch & Marcel Kahan, *Director Elections and the Influence of Proxy Advisors*, 49 (2008) (estimating the overall marginal (i.e., controlling for the underlying factors that investors would take into account anyway) impact of an ISS withhold recommendation at 14.37%). NYU Law and Economics Research Paper No. 08-22. Available at http://ssrn.com/abstract=1127282.

[164] James F. Cotter, Alan R. Palmiter & Randall S. Thomas, *ISS Recommendations and Mutual Fund Voting on Proxy Proposals*, 90 (2009). Vanderbilt Law and Economics Research Paper No. 09-20. Available at http://ssrn.com/abstract=1477564.

[165] *Id.* at 3, 108.

[166] *See* Cotter et al. *supra* note 164 at T-6 (noting that mutual funds, 'knowing they must disclose their actual votes may tend to herd, on the theory that only voting outliers can be subject to criticism.')

[167] In fact, they are very likely to do so given the incentives to engage in epistemic free-riding. *See supra* note 88 and accompanying text.

[168] Cindy R. Alexander, Mark A. Chen, Duane J. Seppi & Chester S. Spatt, *The Role of Advisory Services in Proxy Voting*, 18 (2009) (finding that recommendations for dissidents are associated with positive abnormal returns of 3.76%). NBER Working Paper No. w15143. Available at http://ssrn.com/abstract=1434658.

[169] *Id.* at 25-30. *See also* Alon Brav, Wei Jang, Frank Partnoy & Randall Thomas, *Hedge Fund Activism, Corporate Governance and Firm Performance*, 4 J. Fin. 1729, 1744 (2008) (offering favorable ISS recommendations as a possible explanation for the high success rate of activist hedge funds).

[170] Choi et al., *supra* note 163 at 167 (finding that proxy advisers use different factors in making their recommendations and noting that to the extent investors are not aware of the factors, 'investors may not accurately perceive the information content [of a recommendation].')

[171] *See* Jack Ewing & Jack Healy, Cuts to Debt Rating Stir Anxiety in Europe, New York Times, April 28, 2010.

[172] Judging the Judges, THE ECONOMIST, June 26, 2010, at 13. This goes back to the earlier observation that market prices may deviate from fundamental values; *see supra* notes 31-34 and accompanying text.

[173] *See* Paul Rose, *The Corporate Governance Industry*, 32 J. Corp. L. Vol. 887, 917 (2007) (noting that 'the imposition of governance metrics … compels a rigid set of acceptable practices in a context where flexibility should be a goal'); Lucian A. Bebchuk & Assaf Hamdani, *The Elusive Quest for Global Governance Standards*, 157 U. Penn. L. Rev. 1263 (2009) (arguing that the methodology fails to take into account the governance implications of differences in ownership structure). *See also* Sanjai Bhagat, Brian Bolton & Roberta Romano, *The Promise and Peril of Corporate Governance Indices*, 108 Colum. L. Rev. 1803 (2008) (explaining the differences between commercial- and academic corporate governance indices).

[174] Robert Daines, Ian D. Gow & David F. Larcker, *Rating the Ratings: How Good are Commercial Governance Ratings?* (2009). Stanford Law and Economics Olin Working Paper No. 360. Available at http://ssrn.com/abstract=1152093.

[175] *See* Rose, *supra* note 173 at 906.

[176] The indicators are used to measure 'the degree to which a company's governance structures may meet, or fall short of, best practices in a particular market.' RiskMetrics, RiskMetrics Group to Launch Governance Risk Indicators on March 17, Press release dated March 10, 2010.

[177] *See* Tamara C. Belinfanti, *The Proxy Advisory and Corporate Governance Industry: The Case for Increased Oversight and Control*, 14 Stan. J. Law, Bus. & Fin. 384 (2009).

[178] SECURITIES EXCHANGE COMMISSION, *supra* note 157 at 103. *See also* ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), CORPORATE GOVERNANCE AND THE FINANCIAL CRISIS 30, February 24, 2010 (calling upon authorities to ensure a competitive market for proxy advisory services and monitor the management of conflicts of interest by advisors); COMMITTEE OF EUROPEAN SECURITIES REGULATORS (CESR), PUBLIC STATEMENT OF THE MARKETS PARTICIPANTS CONSULTATIVE PANEL 2, July 10, 2010 (announcing that proxy advisors will be the subject of a work stream on corporate governance); FINANCIAL REPORTING COUNCIL, THE UK STEWARDSHIP CODE (2010) (requiring institutional investors to disclose how they make use of proxy advisory services).

[179] *See* Belinfanti, *supra* note 177 at 434. For the regulation of credit rating agencies, *see* §932 of the Dodd-Frank Act, *supra* note 6 (requiring credit rating agencies to disclose information that can be used by investors and other users of credit ratings to better understand credit ratings); EC REGULATION ON CREDIT RATING AGENCIES, ¶ 25 and art. 6 (No 1060/2009) (requiring credit rating agencies to disclose information to the public on the methodologies, models and key rating assumptions to enable users to perform their own due diligence).

[180] The SEC has made a cautious move in this direction. S*ee* Belinfanti, *supra* note 177 at 437, n237. *See also* Principle 1 of the UK's Code on the Responsibilities of Institutional Investors (2009) (requiring institutional investors to disclose how they make use of proxy advise); EC REGULATION ON CREDIT RATING AGENCIES, ¶ 10 (stating that '[t]he users of credit ratings should not rely blindly on credit ratings but should take utmost care to perform own analysis.')

[181] *See* Millstein Center for Corporate Governance and Performance, Voting Integrity: Practices for Investors and the Global Proxy Advisory Industry, 18 (2009) (proposing a ban on a vote advisor performing consulting work for any company on which it provides voting recommendations or ratings). *See also* Financial Reporting Council, Consultation on A Stewardship Code For Institutional Investors (2010) (asking whether voting services agencies should be encouraged to commit to the spirit of the UK's Code on the Responsibilities of Institutional Investors). For the regulation of auditors, *see* §201 of the Sarbanes-Oxley-Act (amending section 10-A of the Securities Exchange Act of 1934 (U.S.C. 78j-1)).

[182] Dodd-Frank Act, *supra* note 6, §932.

[183] *Id.*, §957.

[184] *See also* Eric Hilfers, Say on Pay with Teeth: Important New Provision in Senate Finance Reform Bill (April 8, 2010) (warning that the proposed reforms will increase the influence of ISS). Available at http://www.boardmember.com.