Do voting rights matter: Evidence from the adoption of equity-based compensation plans

Sudhakar V. Balachandran
Columbia Business School
svb34@columbia.edu

Peter Joos
Sloan School of Management
Massachusetts Institute of Technology
pjoos@mit.edu

Joseph Weber*
Sloan School of Management
Massachusetts Institute of Technology
jpweber@mit.edu

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Abstract

This paper examines the value of shareholder voting rights by investigating the determinants of managers' decisions to adopt equity-based compensation plans without seeking shareholder approval and the effect of these plans on future firm performance. We find that managers of poorly performing firms, and managers of poorly governed firms are more likely to adopt plans without seeking shareholder approval. We also find that poorly governed firms that adopt equity-based compensation plans without shareholder approval perform worse (in terms of return-on-assets and operating income) than firms that adopt plans with shareholder approval. These results are consistent with recent regulatory concerns that, by adopting equity-based compensation plans without shareholder approval, managers were engaging in actions that benefited themselves without benefiting the firm. Thus, the new regulation requiring shareholders to vote on equity-based compensation plans is likely to make shareholders better off, especially the shareholders of poorly governed firms.

1. Introduction

In 2003 both NYSE and NASDAQ changed their listing requirements by mandating all firms listed on these exchanges obtain shareholder approval for equity-based compensation plans. These changes were adopted, in part, as a response to recent scandals, where managers were alleged to allow their self-interested behavior to harm the firm (for example Enron, Worldcom, or Tyco). Although the regulators actions appear to be an attempt to improve corporate governance, there remains a debate on whether requiring shareholders vote on important decisions, like the granting of equity-based pay, will lead to improvements in firm performance.

On the one hand, regulators have argued that "in order to provide checks and balances on the process of earmarking shares to be used for equity-based awards, and to provide shareholders a voice in the resulting dilution, we believe that all equity-based compensation plans, and all material revisions to such plans should be subject to shareholder approval."[1] On the other hand, critics argue that increasing the shareholder's role in the operations of the firm is not optimal, and that there are alternative and more efficient mechanisms to compel managers to act in the best interest of shareholders.[2] In the extreme, the critics argue that requiring shareholder participation in important decisions will lead to the destruction of shareholder wealth.[3] Specialization, expertise, and experience provide managers with the ability to determine the course of action that is optimal to the firm and to the firm's shareholders. Reducing the manager's say in the business by increasing shareholder voting rights is likely to lead to

[1] See the NYSE report entitled "New York Stock Exchange Corporate Accountability and Listing Standards Committee" dated June 6, 2002.
[2] For example, Camara (2003) describes how the power to oust directors, the design of executive compensation systems, product markets, labor markets, the market for corporate control, and the social norms of responsible conduct adequately deter directors incentives to act in their best interests.
[3] E.g., Berle (1926), Berle (1959), Easterbrook and Fischel (1983).

irrational decisions, decisions that destroy shareholder wealth, free rider problems, and campaign costs (Camara 2003 and Easterbrook and Fischel 1983).

The two opposing arguments are related to the managerial accounting problem on the tradeoffs that occur in the allocation of decision rights and the maintenance of decision control.[4] Agency theory argues that the principle is motivated to delegate decision-making authority to the agent because the agent's expertise provides her with an opportunity to make decisions that increase firm value. However, the agent also has incentives to take self-interested actions, which causes the principle to place limitations on the agent's ability to make decisions. In terms of the debate on the importance of shareholder voting rights, the regulators argument is that it is optimal to limit managerial actions in this setting by requiring shareholder approval on all equity-based compensation plans. The critics' point-of-view suggests that managers have both better skills and better information than owners; therefore, by restricting managers' ability to make decisions, regulators will cause future deteriorations in firm performance.

This paper provides evidence on the importance of shareholder voting rights in the context of equity-based compensation plans. Specifically, we focus on a time period when managers had the freedom to adopt equity-based compensation plans without shareholder approval and examine both the determinants of the decision to adopt plans without shareholder approval and the effects of these plans on firm performance.[5]

Based on the arguments made in the incomplete contracting and agency theory research we hypothesize that the manager's decision to obtain shareholder approval will depend on the firm's performance and/or the quality of the firm's system of corporate governance. We argue

[4] See Chapter 2 in Zimmerman (2003) for an in-depth discussion of this problem.
[5] As we discuss in section 2, regulatory changes over the period 1996-2002 and the explosion in the use of stock options both increased the incidences of managers adopting equity-based compensation plans without shareholder approval.

that managers of poorly performing firms are more likely to adopt equity-based compensation plans without shareholder approval because they believe the firm's poor performance will lead shareholders to reject the plan. The effect of corporate governance on the decision to adopt plans with or without shareholder approval is less clear. If the regulators are correct, then managers will be more likely to adopt non-approved plans when the firm has a weak governance structure. By contrast, if the critics are correct, then the quality of the corporate governance is unlikely to be associated with the manager's decision to adopt plans without shareholder approval.

Similarly, it is unclear whether the adoption of plans without shareholder approval will have a differential effect on the firm's future performance compared to the adoption of approved plans. If the regulators are correct, then the future performance of firms that adopt plans without shareholder approval will be worse than the performance of firms that adopt plans with shareholder approval. Alternatively, if the critics are correct, then the adoption of plans without shareholder approval will yield improvements in performance similar to those following the adoption of shareholder-approved plans.

To test our hypotheses, we take advantage of a new SEC regulation, effective July 2002, requiring firms to include a table of all equity-based compensation plans in their 10-Ks.[6] We search Lexis-Nexis for all 10-Ks and proxy statements between July and December 2002 to establish a sample of 479 firms that had adopted 1097 equity-based compensation plans between 1978 and 2002. Of these 1097 plans, 215 were adopted without shareholder approval. Consistent with commentators' observations, we find the adoption of non-approved equity-based compensation plans is a relatively recent phenomenon (e.g., Wagner and Wagner 1997; Thomas and Martin 2000). We find that prior to 1997, only 9% of equity-based compensation plans were

[6] To ensure financial statement users can easily identify the approval status of firms' equity-based compensation plans, firms must also identify which plans have been adopted with and without shareholder approval.

adopted without shareholder approval. The percentage increases to over 27% during the period 1997-2002.

To evaluate the determinants of a firm's decision to adopt non-approved equity-based compensation plans we estimate a probit model that compares the characteristics of firms with approved equity-based compensation plans to those of firms with non-approved equity-based compensation plans. By focusing our tests on a sample of firms with equity-based compensation plans, we control for the factors that lead firms to adopt equity-based compensation plans and isolate the determinants of the decision to adopt the plans without seeking shareholder approval.

We find systematic differences between both sets of firms. Specifically, we find that in the year of plan adoption firms adopting equity-based compensation plans without shareholder approval have a lower return on assets (*ROA*) than firms with approved plans. This finding supports the hypothesis that managers of poorly performing firms elect to adopt plans without shareholder approval because they fear that the shareholders will reject additional equity-based compensation plans. We also find firms with weak corporate governance being more likely to adopt equity-based compensation plans without shareholder approval. Specifically, we observe that firms with a higher number of insiders on the board, firms with a CEO who is also the chair of the board of directors, and firms with diffuse shareholdings (i.e., no large block shareholders (10%)) are more likely to adopt equity-based compensation plans without shareholder approval.

Next, to reexamine our hypotheses we identify a set of firms that over time adopted both types of plans. We control for firm-fixed effects and find the results of the analysis corroborate the role of performance; that is the *ROA* results remain qualitatively unchanged. Not surprisingly, given their time-invariance, the governance variables are no longer significant in this analysis. Taken together though, the evidence of both analyses is consistent with our

predictions that firm performance and firm governance are determinants of management's decision to adopt non-shareholder-approved compensation plans.

Our final analysis examines the extent to which shareholder approval of equity-based compensation plans affects future firm performance. We use two accounting-based measures to capture different aspects of firm performance (*ROA* and Operating Income) and examine whether firms that did not obtain shareholder approval for equity-based compensation plans perform worse than firms that obtained approval. Based on the arguments in Camara (2003), we control for the possibility that good corporate governance potentially reduces the value of voting rights.

We find that poorly governed firms that adopted equity-based compensation plans without shareholder approval perform worse than firms that obtain shareholder approval. When firms have good systems of corporate governance, the effect is attenuated. This result holds when we control for the endogeneity of the decision to adopt equity-based compensation plans without shareholder approval (using two different methodologies). Thus, consistent with the regulators' concerns, when managers of poorly governed firms adopt non-approved equity-based compensation plans, it appears they do so to make themselves better off rather than to improve the firm's financial performance.

Summarizing, our findings highlight the importance of shareholder-voting rights. When firms have the choice of allowing shareholders to vote on equity-based compensation plans, they will avoid shareholder votes when they are poorly governed and when they perform poorly. Furthermore, when poorly governed firms adopt non-approved plans, they do not appear to improve future financial performance but rather perform worse than firms that obtain shareholder approval. However, consistent with Camara's (2003) arguments, well-governed firms that adopt equity-based compensation plans without shareholder approval do not perform worse than well-

governed firms that adopt shareholder-approved plans. Relating to the recent regulatory attention shareholder approval of equity-based compensation plans has received, our results suggest that the new NYSE and NASDAQ rules requiring shareholders to vote on equity-based compensation plans are likely to make shareholders of poorly governed firms better off.[7]

The rest of this paper is organized as follows: Section 2 discusses the theoretical and empirical literature on the importance of voting rights and the regulatory reform on shareholder voting rights. Section 3 develops hypotheses, and Section 4 describes our sample selection procedures. Section 5 develops our proxies and discusses the research design. Section 6 presents our results and Section 7 concludes.

2. Background and Motivation

2.1 Economics of the firm and voting rights

Agency theory views the firm as a 'nexus-of-contracts' and studies the conflict of interest between managers and owners of firms arising from the separation of ownership from control (see Coase 1937, Jensen and Meckling 1976, among others).[8] Within the agency theory framework, researchers focus specifically on the role and effect of managers' incentive mechanisms in the decision process of firms. As a guideline, Fama and Jensen (1983) model the decision process as having four steps: (1) Initiation – generation of proposals for resource utilization; (2) Ratification – selection of decisions to be implemented; (3) Implementation – execution of ratified decisions; and (4) Monitoring – measurement of performance of decision agents and implementation of rewards. They argue that both decision ratification and monitoring

[7] The NYSE and NASDAQ requirement provide formal voting rights to shareholders with respect to equity-based compensation plans. Shareholder voting on equity-based compensation plans therefore is not strictly a 'right' during the period we study, since managers have a choice to put a plan to a vote or not. By studying managers' choice though we can understand what constitutes the trade-off inherent in providing the shareholders with voting rights.

[8] A review of this literature is outside the scope of this paper, see Allen and Winton (1995) and Harris and Raviv (1992) for extensive overviews.

are control rights retained by the firm's owners.

Whereas a large body of empirical agency literature in accounting, economics and finance demonstrates the importance of monitoring in economic decision-making, relatively few studies focus on the role of decision ratification. Some exceptions are, for example, Lease et al. (1983), who examine firms with dual class stock and find shares with superior voting rights generally trade at a premium compared to shares with inferior voting rights. Similarly, DeAngelo and DeAngelo (1985) provide evidence that shareholder's voting rights are valuable by examining managers' stock holding decisions for firms with dual class stock. Also, Jarrell and Poulsen (1988) and Ruback (1988) provide evidence of a negative shareholder wealth effect associated with firms reducing voting rights through dual-class recapitalizations.

While providing evidence on the importance of voting rights, the early studies do not document what determines the importance of the voting rights or what the particular circumstances are under which voting rights become more valuable to shareholders. Recently however, the theoretical financial contracting literature, adopting the incomplete contracting framework developed by, among others, Grossman and Hart (1986) and Hart and Moore (1988, 1990), discuss more explicitly the role and importance of voting rights in corporate finance (see Hart 2001 for an overview).[9] In particular, the financial contracting literature investigates how voting rights address the problem that contracts typically cannot include all future contingencies that arise in the (dynamic) relation between managers and owners of the firm. One of the key questions in this literature is therefore how the right to make future decisions should be allocated between the managers and the owners of the firm.

[9] The financial contracting literature often phrases the problem in terms of the allocation of voting rights between the entrepreneur and investors, as opposed to manager and owners of the firm. The key features of the problem setting are the same though.

An important paper by Aghion and Bolton (1992) provides a theoretical framework to study this question. Aghion and Bolton (1992) analyze how voting rights shift between managers and owners as a function of the efficiency of a strict focus on cash flow as opposed to other benefits. Empirical work by Kaplan and Stromberg (2003) tests several theoretical predictions of the Aghion and Bolton (1992) framework focusing on the financial contracts that have been developed in the venture capital sector. They find empirical evidence that venture capital financing contracts allow separate allocation of cash flow and voting rights between entrepreneur and venture capitalists. More importantly, they also find that, consistent with the predictions of the Aghion and Bolton (1992) model, cash flow rights and voting rights are contingent on observable measures of financial performance: when the firm is performing poorly, the venture capitalists typically obtain full control, allowing them to terminate the project or remove the entrepreneur. As Hart (2001) argues, the shift of voting rights as a function of performance therefore makes the most efficient solution possible when events take a turn for the worst.

Summarizing, the economics literature suggests voting rights address the problem that incomplete contracts cannot include all future contingencies in the manager-owner relationship. Theoretical and empirical work shows evidence not only of separate allocation of cash flow and voting rights between managers/entrepreneurs and owners, but also of shifts in voting rights between managers and owners are a function of observable measures of financial performance. The evidence therefore suggests certain firm-institutional factors determine the importance of voting rights for either managers or owners. From the standpoint of the owners of the firm, the issue of interest is to identify under which circumstances and for which decisions voting rights become most important.

Our research extends previous work on the importance of voting rights by investigating their role in the context of the adoption of equity-based compensation plans. As we discuss below, management has considerable flexibility to design equity-based compensation plans. In particular, management can design plans in such a way that it need *not* present them to shareholders for approval. We argue the determinants of management's decision to present plans for shareholder approval will relate directly to the importance of voting rights for shareholders. By investigating what institutional factors lead to the decision to adopt equity-based compensation plans without shareholder approval and by evaluating the effects of approved vs. non-approved plans on future financial performance, we are able to assess the importance of voting rights for the firm's owners. Before we develop formal hypotheses, we review the regulatory context of the ratification of equity-based compensation plans in the US in recent years.

2.2 Regulatory context of ratification of equity-based compensation plans

Prior to the early 1980's, few formal regulations required a firm to submit its equity-based compensation plans to a shareholder vote. However, two forces prevented many firms from adopting plans without shareholder approval (Wagner and Wagner 1997). First, SEC rule 16b-3 required any compensation awarded to executives without shareholder approval to be subject to the SEC's short swing sale prohibition.[10] The restriction made non-approved plans costly by requiring managers to hold stock for 6 months after exercising their options and caused most firms to ask shareholders to ratify equity-based compensation plans (Thomas and Martin

[10] Thomas and Martin (2000) report that prior to 1996, Rule 16b-3 stated that an employee benefit plan was exempt from rule 16(b) if it had been approved "by the affirmative votes of the holders of a majority of the securities or by their written consent."

2000).[11] In addition to the SEC rules, the NYSE's requirements obliged listed firms to submit all plans to a shareholder vote unless they fall within the broad-based exception.

Amendments to both SEC and NYSE rules in recent years however greatly affected management's decisions to obtain shareholder's approval of equity-based compensation plans (Thomas and Martin 2000). Specifically, in 1996 the SEC changed their exceptions to the short swing sale rule (rule 16b-3) allowing equity-based compensation plans an exemption if the board of directors, a board committee, or the shareholders approves them. In addition, the NYSE controversially amended their listing requirements in 1998 to loosen the shareholder approval requirement. The amendment expanded the types of option plans that are exempt from shareholder approval and created a non-exclusive safe harbor for those plans in which 20% of the firm's employees, half of whom are neither officers nor directors, are eligible to participate. Despite opposition to the changes from institutional investors, the amendment remained intact until 2002.

Thus, during the period between 1996 and 2002, changes in SEC policy and NYSE listing requirements created a window of opportunity during which firms could relatively easily adopt equity-based compensation without shareholder approval. Recent regulatory changes though suggest firms will find it harder to adopt the non-approved plans in the future. In 2003, both NYSE and NASDAQ proposed and adopted modifications to their listing requirements in the wake of the corporate governance scandals in the US. As a result, all firms listed on the two exchanges are now required to submit all equity-based compensation plans to a vote, subject to a

[11] Another factor that potentially affects how often shareholders ratify option plans are state regulations that requires a shareholder vote to be taken on fundamental transactions if the shareholders have decided that the adoption of equity-based compensation is considered as such (Easterbrook and Fischel 1983).

few minor exceptions.[12] The SEC approved the modification and the new rules of NYSE and NASDAQ on June 30th, 2003 (SEC 2003).

Realizing the current disclosure requirements did not help shareholders identify the existence of plans adopted without shareholder approval, the SEC enacted regulatory changes to the disclosure format of equity-based compensation plans in the 10-K or proxy statement (SEC 2002). Beginning in July 2002, all firms that have unexercised options and/or options available for grant under an equity-based compensation plan must disclose the existence of their plans in a tabular format. Furthermore, the table must also disclose whether the firm's shareholders approved the plan.

When adopting this regulation, the SEC explicitly stated that the objective of the change in disclosure rules is to allow financial statement users to both easily identify firms with non-approved equity-based compensation plan and assess the full extent of the dilutive effects of firms' equity-based compensation plans (SEC 2002). The SEC motivates the need to change the regulation by acknowledging that both the relaxation in approval requirements for equity-based compensation plans and the rising opposition against equity-based compensation plans by shareholders has lead an increasing number of companies to adopt plans without shareholder approval (SEC 2002, section IV).

Summarizing, during the late 1990s when the use of equity-based compensation exploded, the regulatory requirements for the ratification of equity-based compensation plans were substantially relaxed. Recent scandals and calls for reforms in corporate governance prompted the stock exchanges and SEC to require managers to obtain shareholder approval for equity-based compensation plans and to disclose the existence of plans that were adopted

[12] The exceptions are plans of firms that were acquired in a merger, plans designed to give options to new hires, and plans associated with 401k's.

without shareholder approval. We take advantage of the relaxed constraints and the change in disclosure requirements to provide evidence on the value of shareholder voting rights in the context of the adoption of equity-based compensation plans.

3. Hypotheses

To provide evidence on the value of shareholder voting rights, we investigate the determinants of management's decision to seek shareholder ratification of equity-based compensation and how ratification affects future performance of the firm. Regulators assert that shareholder ratification is an important corporate governance tool that can be used to increase firm value. Critics suggest that there are other more effective mechanisms to protect shareholders, and involving the shareholder in the day-to-day operations of the firm will ultimately lead to deteriorations in firm performance. These opposing points of view suggest that there potentially exist systematic differences in the types of firms that adopt plans without obtaining shareholder approval, and these two types of plans potentially affect firm performance differently.

Referring to our earlier discussion, we predict two factors will affect management's decision to adopt equity-based compensation plans without shareholder approval. First, we expect that the probability that shareholders will reject the plan will affect the decision to put the plan to a vote. We hypothesize that shareholders will become more active during periods of poor performance, especially in matters concerning dilution of ownership and managerial compensation.[13] Therefore, we predict that managers, if they expect an increase in shareholder activism in times of poor firm performance, will be less likely to submit equity-based

[13] Thomas and Martin (2000) present anecdotal evidence in support of our argument. They show that one of the contributing factors that led Gymoree Corporation's shareholders to vote against the equity-based compensation plan in 1998 was the firm's poor performance in the quarter prior to the plan's adoption.

compensation plans to a vote when the firm is performing poorly.

Second, we expect the quality of the firms system of corporate governance will affect the decision to adopt plans without seeking shareholder approval. In the regulatory debate leading up to the new NYSE and NASDAQ listing requirements, the SEC and a number of commentators mention the need to improve corporate governance as an explicit objective of the requirement. For example, in a comment letter to the SEC in support of the proposed changes to the listing requirements, Mark Heesen, the president of the National Venture Capital Association (NVCA) argues there are "recent instances where stock options contributed to a misalignment of the interests of senior executives and long-term shareholders…" He goes on to state that the NCVA "now support(s) the view that shareholders' concerns about dilution can only be allayed by a shareholder vote on all stock option plans." These arguments imply that firms that adopt equity-based compensation plans without shareholder approval will exhibit worse corporate governance than firms that adopt plans with shareholder approval, all else equal. Alternatively, the critics point-of-view suggests that other features of the firm's system of corporate governance will align the manager's interests with the shareholders and there will be no difference in the types of firms that adopt equity-based compensation plans without shareholder approval.

After evaluating the determinants of management's decision to adopt equity-based compensation plans without shareholder ratification, we study the *ex post* effects of implementing plans without shareholder approval on performance of the firm. We do *not* formulate a one-sided hypothesis on the effects of approval of equity-based compensation plans on future firm performance since opinions are divided on whether shareholder voting necessarily leads to better decision making. Regulators, and supporters of regulatory reform, suggest that

requiring shareholder approval of equity-based compensation plans will improve firm performance. However, critics argue that requiring shareholders to vote on detailed matters of executive compensation will involve shareholders too much in the day-to-day operations of the firm.[14] Given both arguments, we therefore assess whether future firm performance varies as a function of the approval status of implemented compensation plans.

In our analysis we also examine how the interaction of corporate governance and shareholder approval of equity-based compensation plans affects the firm's future performance. Recall that the effectiveness of the firm's system of corporate governance is a critical part of the argument that expanding shareholder voting rights will not lead to improvements in firm performance. That is, the critics argue that other corporate governance mechanisms prevent managers from taking actions that do not benefit the firm (e.g., Camara 2003). By investigating the effects of corporate governance on the association between performance and shareholder approval we can determine whether good systems of corporate governance attenuate the influence of shareholder approval on firm performance.

4. Sample Selection

To identify firms that adopted equity-based compensation plans without shareholder approval, we rely on the recent SEC regulation requiring firms to disclose annually all equity-based compensation plans in their 10-K or their proxy statement. More specifically, the new regulation requires firms to provide a summary table of equity-based compensation, partitioned on approval status of the adopted plans: the summary table discloses the number of shares

[14] For example, Easterbrook and Fischel (1983) argue that, "Shareholders are unlikely to know better than the managers how to run the firms and thus cannot either make good decisions or recognize bad ones. The more shareholders govern, the more poorly the firms do in the marketplace." This view is supported by the director of the Employees Retirement System of Texas in her comment on the NYSE's proposal, where she argues that, "companies' compensation practices should not be micromanaged and that shareholder approval should be required only for plans that dilute ownership over a certain threshold" (SEC 2003).

available under the plan, the number of shares granted, and the average exercise price. We use the summary table to identify firms with equity-based compensation. Since the SEC regulation became effective on July 15, 2002, we begin our sample selection process by collecting all 10-K's and proxy statements filed with the SEC after the effective date and before December 15, 2002.[15] We then use a keyword search to identify firms that have equity-based compensation.[16] The process yielded 710 firms with equity-based compensation plans.

We then use the information disclosed in the equity-based compensation table and searched through the firm's 10-K's and proxy statements to find the specific adoption dates for the firm's equity-based compensation plans. 231 of the 710 firms that disclosed the existence of equity-based compensation plans did not provide enough information to allow us to determine exactly when/which plans were approved or not approved by shareholders. As a result, our sample size dropped to 479 firms, with a total of 1,097 adopted equity-based compensation plans.[17]

Note that the sample selection procedure we employ does not allow us to identify plans proposed by management but voted down by shareholders. To determine whether the firms in our sample had compensation plans voted down during our sample period, we conducted a keyword search on the FACTIVA database.[18] For our sample, we did not find any instances of plans that were placed to a shareholder vote and voted down. This result is not particularly

[15] By searching over this time period, our sample consists primarily of firms that do not have a December fiscal year end. This feature of our sample is likely to create some industry clustering, but otherwise is unlikely to cause any biases in the subsequent tests we perform.

[16] When the SEC adopted this regulation, they emphasized the need for uniformity in the disclosure format. We conducted a pilot study of 50 proxy statements, and found that all firms that had equity-based compensation plans had tables entitled "**Equity Compensation Plan Information".** We used this uniformity in disclosure requirements, and searched 10k's and proxy statement using the phrase "**Equity Compensation Plan Information"** to identify the firms in our sample.

[17] There were an additional 23 plans adopted that benefited firms consultants. We exclude these plans from our analysis. However, the inclusion of these plans does not qualitatively affect our results.

surprising, since firms that thought shareholders were likely to vote down compensation plans could simply adopt the plans without a shareholder vote.

Table 1 provides the aggregate data for the 479 firms in the initial sample. In Panel A, we compare the terms of the approved equity-based compensation plans to the terms of the non-approved plans. We find approved plans are generally larger and have higher exercise prices. Since stock options are generally issued with an exercise price equal to the stock price of the firm's stock at the date of grant, the table suggests that management adopts non-approved plans when the firm is performing poorly.[19]

Panel B of Table 1 provides descriptive evidence on the categories of employees who are being compensated with equity-based compensation plans in our sample. The largest category of plans covers all of the firm's employees with a total of 778 plans. Of these 778 plans, 142 (or about 18 percent) were issued without shareholder approval. Plans that benefit officers of the firm represent the highest category of plans to specific firm employees issued without shareholder approval: 41 percent of all plans to officers are non-approved. The percentages of non-approved plans to directors (employee or non-employee) are much lower (15 and 10 percent, respectively).

In Panel C of Table 1 we provide descriptive statistics regarding when plans were adopted, focusing on the adoption rate of approved and non-approved plans over our sample period. The Panel shows the adoption of equity-based compensation plans without shareholder approval is a relatively recent phenomenon. Over 85 percent of the non-approved plans were

[18] We used as search terms the companies name and the words "vote" and "compensation". We noted the press did mention numerous instances where compensation plans were approved, or compensation plans were being placed to a vote, but no instances of a plan being rejected.

[19] The conclusion is subject to the caveat that potentially systematic differences in the grant dates under the two different types of plans exist.

adopted during or after 1996.[20] The pattern suggests the SEC's amendment to rule 16b-3 in 1996 discussed earlier clearly affected firms' decisions to issue plans without shareholder approval. Note that legal scholars highlight that at the same time the regulator (and stock exchanges) relaxed shareholder approval requirements, companies faced increasingly stronger shareholder resistance to the exploding allocation of stock to these plans (e.g., Thomas and Martin 2000). The SEC ruling refers to studies by the Investor Responsibility Research Center that show an increasing number of negative votes on proposed equity-based compensation plans and even an increasing number of rejections of proposed plans in the late nineties and 2000 (SEC 2002, fn. 116). The pattern we find therefore is also consistent with management adopting more plans without shareholder approval as a response to the increased shareholder activism during this time-period.

Table 2 shows the industry composition of our sample using the industry classification from Barth et al. (1998) and compares it to the composition of the *Compustat* database. We observe that certain industries, and in particular the computer industry, are relatively over-represented in our sample, potentially mirroring the variation in the use of equity-based compensation across different industries. To control for the industry composition of our sample and the potential effects it has on the computation of our performance measures in the tests, we industry-adjust all measures in the tests below.

5. Research Design and Proxies

To investigate the determinants of the decision to adopt equity-based compensation plans without shareholder approval, we estimate a probit regression, with the dependent variable being

[20] The regulation only requires disclosure of active plans. Therefore, if there are systematic differences in the length of time that approved and non-approved plans remain active, then the statistic is biased. We are unable to obtain the data necessary to determine the extent of the potential bias.

one if shareholders are not asked to approve the plan and zero otherwise. The independent variables include measures of the performance of the firm, the quality of the firm's corporate governance system, and control variables for the other determinants of the decision to adopt plans without shareholder approval.

Our probit regression includes two proxies of firm performance. First, we use the firm's return-on-assets corrected for interest expense after tax and minority interest (*ROA*) in the fiscal period the plan was adopted.[21] Second, we include firm's return-on-assets for the fiscal-year end the year prior to the plan's adoption (*LAG_ROA*). We include both measures in the model since it is not unambiguously clear what performance horizon managers consider when deciding to put the plan to a vote or not. In addition, many firms disclose only the year and not the month of plan adoption: for plans adopted early during the year, *LAG_ROA* presumably will be of more relevance for management's decision, whereas for plans adopted later in the year *ROA* potentially affects the decision.

To measure the quality of a firm's corporate governance, we use three measures taken from Bushman et al. (2003). Our first variable captures the number of insiders on the board, measured as the ratio of the number of members of the board of directors that are insiders to the total number of members on the board (*INSRAT*). Our second measure captures the influence of block-holders, measured with an indicator variable that takes the value of one if the firm has at least one investor considered a beneficial owner by SEC insider rules, and zero otherwise (*BENOWN*). Note that the SEC insider rules classify any investor owning greater than 10% of

[21] We define *ROA* as income before extra-ordinary items and discontinued operations (annual *Compustat* data item #18) + net interest expense after tax ((data item #15 – data item #62) times (1 – effective tax rate), scaled by lagged assets (data item #6); the effective tax rate is income taxes (data item #16) divided by pre-tax income (data item #170). We re-estimate our analyses using 35% as the tax rate in the definition of *ROA* and find that none of our results change qualitatively.

the company's stock as a beneficial owner. Our third measure is an indicator variable that takes the value of one when the CEO is also the chairperson of the board, and zero otherwise (*CEOCHR*). We run the analysis including each of the measures of corporate governance individually, as well as with all three measures at once.

In addition to our main variables of interest, we also include a number of control variables for other characteristics that likely affect the decision to submit an equity-compensation plan to a shareholder vote. Specifically, we include indicator variables to control for the beneficiaries of the plans, namely the firm's directors or officers (*DIRECT*, *OFFICER*). We also control for the size of the equity-based compensation plan. Proponents of the changes in listing rules have argued that firms adopt large dilutive plans without shareholder approval. Alternatively, firms may elect to adopt small plans without shareholder approval. If firms adopt small plans to allow them to quickly provide equity-based compensation to new hires or promoted executives, then it would be costly and time consuming to place these plans to a vote. To measure the size of the plan, we define *SIZERAT* as the number of shares authorized for granting by a given option plan, divided by the number of share outstanding at the end of the year the plan was implemented.

We control for the firm's size by including the natural log of the firm's assets (i.e., annual *Compustat* data item #6 or *LNASSETS*). We also include indicator variables to control for the firm's listing status on NYSE or NASDAQ (*NYSE, NASDAQ*). Our last control variable is an indicator variable that takes the value of one if the firm acquired the equity-based compensation plans in a merger, and zero otherwise (*MERGER*) (see fn. 8).

In a second analysis, we focus on a subset of firms that adopt both approved and non-approved plans over the sample period. Within this sample we augment our probit regressions to

include firm-fixed effects to control for other potential omitted variables. By focusing on this sample and by including fixed firm-effects, we provide additional evidence on how performance and corporate governance affect the decision to adopt equity-based compensation plans without shareholder approval.

Next, we evaluate if the approval of equity-based compensation plans affects firms' future performance by examining the determinants of two performance measures for the fiscal year after plan adoption. Specifically, we focus on two accounting performance measures of firm performance: return on assets (*ROA* as defined before), operating return (*OPINC*, i.e., operating income scaled by lagged assets).[22] Since the two measures capture different aspects of firm performance, i.e., they include different income statement line items, our focus on the measures separately allows us to identify the areas management focuses its attention on to improve firm performance.

To examine the effects of shareholder approval on future performance, we include as independent variable in the model an indicator variable that takes on the value of one if the plan was not approved and zero otherwise (*NOT_APPROVED*). We also test if good corporate governance affects the association between plan approval and future performance by including a term in the models that captures the interaction between governance and plan approval. Our measure of good corporate governance, (*GOOD_GOV*) is an indicator variable that takes the value of 1 if the firm's board is below the median *INSRAT*, does not have a CEO as chair (i.e., *CEOCHR* is equal to zero), and has a beneficial owner (i.e., *BENOWN is* equal to one.) The indicator takes the value of zero if *any* of the preceding conditions is not met. We include both *GOOD_GOV* and the interaction of *NOT_APPROVED with GOOD_GOV* in the models.

[22] To be precise: *OPINC* = annual *Compustat* data item #13 scaled by lagged assets.

In addition to the variables capturing the approval status of the plans and the quality of corporate governance of the firm, we include current financial performance in the model (*ROA*, *OPINC*) to capture mean-reverting patterns of firm profitability at different levels in the income statement (see for example Nissim and Penman 2001).[23] Finally, we also include firm size *(LNASSETS*) as a proxy for omitted risk and growth factors that potentially determine future profitability.

We estimate three specifications of the future performance models. We first estimate a regular OLS specification of the performance models using the previously discussed variables. Since the potential endogeneity of the approval status variable *NOT_APPROVED* affects the OLS specification of the model, we estimate two additional specifications. First, we augment the OLS specification by including all exogenous determinants of the decision to put a compensation plan to a vote. Second, we carry out a two-stage estimation of the OLS model: in the first stage, we estimate a probit model of the decision to put a compensation plan to a vote as a function of all of the exogenous variables, and then use the predicted value from this estimation as a proxy for the exogenous component of *NOT_APPROVED* in the second stage OLS estimation.[24]

6. Results

6.1 Univariate Results

Table 3 presents descriptive statistics on the variables we include in the analysis.[25] We industry-adjust all accounting performance variables using industry medians and find that firms with plans approved by shareholders perform better than firms with non-approved plans. More

[23] Consistent with the previous literature focusing on the persistence of firm profitability, we estimate the time-series relation of firm profitability using a levels specification (see Sloan 1996, or for a more recent example Rajgopal et al. 2003).

[24] We also considered estimating using a self-selection correction. However, this methodology is not appropriate in this setting since we interact the choice variable (*NOT_APPROVED*) with *GOOD_GOV* in the model.

[25] We winsorize all continuous variables in our analyses at the 1st and 99th percentiles. In sensitivity analyses, we also winsorize the variables at the 5th and 95th percentiles and find the results do not change qualitatively.

specifically, relative to firms with non-approved plans, the mean and median *ROA* and *OPINC* for firms with approved plans are higher in the years before, during, and after plan adoption; the statistical significance of the differences is typically larger for the means than the medians. These results lend preliminary support to our hypothesis that poorly-performing firms, at least when measured using *ROA* or *OPINC*, are less likely to place option plans to a vote.

Focusing on our measures of corporate governance, we see a higher percentage of insiders on the board (*INSRAT)* of firms with non-approved plans than of firms with approved plans; also, firms with non-approved plans have fewer beneficial owners and are more likely to have a CEO who is also chairman of the board. Consistent with the results for the three corporate governance variables separately, a larger proportion of approved plan observations exhibit good governance (*GOOD_GOV*) relative to non-approved plan observations. Jointly the results suggest that firms with non-approved plans exhibit lower corporate governance quality than firms with approved plans.

The table further shows a higher proportion of non-approved plans relates to compensation for officers, whereas a lower proportion relates to directors. Finally, in terms of the control variables, approved plans are generally larger than non-approved plans, as measured by *SIZERAT*, but there does not appear to be a difference in the size of firms with approved and non-approved plans, as measured by the log of assets (*LNASSETS)*.

6.2 Determinants of the decision to place a plan to a shareholder vote.

Table 4 reports the results of the tests of the determinants to adopt equity-based compensation plans without shareholder approval. We estimate different specifications of the main model, varying the governance variables included. Focusing on the industry-adjusted performance variables in the models in Panel A, we find a negative and significant coefficient on

current *ROA* in all specifications, suggesting current poor performance leads management to avoid bringing the plan to a shareholder vote. *LAG_ROA* in contrast does not exhibit any association with the decision to put the plan to a shareholder vote. The results therefore suggest that, to avoid shareholder rejection of the plans, poorly-performing firms adopt equity-based compensation plans without bringing them to a shareholder vote.

The results further show that the quality of a firm's system of corporate governance affects the decision to adopt an equity-based compensation plan without shareholder approval. Specifically, we find that all three measures of corporate governance (*INSRAT, BENOWN, CEOCHR*) are statistically significant in the hypothesized direction. In Models I through III, we include each corporate governance variable separately in the equation and in Model IV we include all three variables. In each specification, the coefficients on the corporate governance variables are significant with the predicted sign. Focusing on the control variables, we find that plans used to pay the firm's officers are less likely to be placed to a shareholder vote (*OFFICER*) while plans that are used to compensate directors are more likely to be placed to a vote (*DIRECTOR*). We also find that smaller plans are less likely to be put to a shareholder vote (*SIZERAT*). The remaining control variables are never significant in the models.

Panel B of Table 4 shows the results of the specifications including firm-fixed effects. The coefficients on current *ROA* remain highly significant and negative in all specifications, re-affirming the role of firm performance for the decision to put a plan to a vote. Also, the coefficients on *LAG_ROA* are significant and positive. Together, the pattern of coefficients on lagged and current performance suggests that a *worsening* of performance determines management's decision to *not* put new equity-based compensation plans to a vote.

The results for the governance variables no longer appear in the firm-fixed effect

specification, a result that is not surprising given their time-invariance. Focusing on the control variables, we observe a stronger negative effect of the size of the plan (*SIZERAT*) in the firm-fixed effects specifications. With the exception of the loss of significance of the coefficients on *DIRECTOR* in the firm-fixed specifications, the results for the other control variables remain qualitatively the same as in Panel A.

Overall, the results of the analysis suggest that when firms are performing poorly and when they exhibit weak governance, they are more likely to adopt equity-based compensation plans without a shareholder vote.

6.3 Sensitivity Analyses

We carry out a number of (untabulated) sensitivity analyses to verify the robustness of our determinants tests. First, we replace our governance measures with a single measure obtained through factor analysis. We find the variable is statistically significant, in the hypothesized direction, suggesting that well-governed firms are less likely to adopt equity-based compensation plans without shareholder approval. We additionally estimate our determinants tests including *GOOD_GOV* as a summary governance measure and find results that are qualitatively similar to the ones reported in Table 4. Second, we replace our financial performance measures (*ROA*, *LAG_ROA*) with returns-based measures (equally-weighted and value-weighted returns). We find firms with lower equally-weighted and value-weighted returns in the year of plan adoption are more likely to adopt the plan without shareholder approval. Third, we estimate the determinants tests using non-industry adjusted *ROA* and find results are qualitatively similar (and in fact stronger). Finally, we re-estimate the regressions using post-1996 data alone focusing on the years when it became easier to issue non-approved plans and find our results hold. Summarizing, the set of robustness analyses confirm the findings of the

determinants tests in Table 4.

6.4 Does approval status affect subsequent performance?

In Table 5 we provide evidence on whether firms with approved plans perform better than firms with non-approved plans in the period subsequent to plan adoption. Focusing on two accounting measures, we estimate three specifications of the subsequent performance model. We do not predict the sign on the coefficient on *NOT_APPROVED* but predict that good governance will mitigate the potentially negative effects of managers adopting compensation plans without shareholder approval; in other words, we predict a positive coefficient on the interaction between *NOT_APPROVED* and *GOOD_GOV*.

Panel A of Table 5 presents the results of the OLS estimation of the performance models. The Panel shows evidence consistent with non-approved plans leading to relative worse future performance measured as *ROA* or *OPINC*. Additionally, we find evidence consistent with good governance mitigating the negative effect of non-approved plans on future performance, but only in the *ROA* specification.

Panel B of Table 5 reports the results of our second model specification that includes the determinants of the approval status of the plan as additional control variables. We find results similar to those in Panel A with the exception of the coefficient on *NOT_APPROVED* in the model using *OPINC*: although still negative, the coefficient is no longer significant at conventional levels.

Panel C of Table 5 reports the results of the estimations using the two-staged approach to estimate the exogenous part of the approval status variable. In a first stage we estimate a probit model of the decision to put a plan to a vote on the variables endogenous to both choices (i.e., the performance and governance variables). We then use the residual from this estimation as our

proxy for the exogenous component of the approval status variable in the performance models. The results of the second-stage estimation in Panel C are similar to the results in the other two Panels. Specifically, we find negative and significant coefficients on the approval status variable when we measure performance using *ROA* or *OPINC* and a positive coefficient on the interaction variable in the model using *ROA*.

In sum, focusing on the accounting performance measures we find results consistent with non-approved plans being associated with lower future *ROA* or *OPINC*. More importantly, our results underline the value of shareholder-voting rights and suggest that the use of non-approved equity-based plans is not particularly effective. At the extreme, the results suggest that managers that adopt equity-based compensation plans without shareholder approval are expropriating wealth from the shareholders.

Our results also highlight the role of good corporate governance: the positive coefficients on the interaction term in the *ROA* models in the three Panels of the Table suggest good corporate governance neutralizes potential negative effects on future *ROA* of management adopting non-approved plans. Since we do not observe the same result for the other models, in particular the *OPINC* model, the result implies that good governance specifically affects management's reporting of *non-operating* expenses in the presence of non-approved compensation plans.[26]

7. Conclusion

The recent scandals and corresponding regulatory changes have heightened both the academic communities and the public's interest in corporate governance issues. Academics have

[26] In untabulated analysis, we evaluate if future returns differ between firms that adopt shareholder-approved or non-approved plans. Our analyses find no difference in future returns between both sets of firms, potentially because the time-series pattern of returns does not sequentially reflect the effects of plan adoption. That is, it is possible that returns *concurrent* with plan adoption already reflect investors' interpretation of the adoption of the plans.

long argued that voting rights constitute a critical component of a system of corporate governance. Our paper provides evidence on the role and importance of shareholder voting in corporate governance by examining a situation where managers have the discretion to choose whether or not to have shareholders ratify their decisions, namely in the adoption of equity-based compensation plans.

Our analyses show there are systematic differences between firms that bring plans to a shareholder vote and the firms that avoid shareholder ratification. Specifically, the evidence is consistent with firms avoiding shareholder votes when the shareholders are likely to overturn managerial decisions because of poor firm performance and when the firm is poorly governed. We further find that firms that poorly governed firms that adopt equity-based compensation plans without shareholder approval report worse return on assets and operating income performance in the year subsequent to adoption than firms that obtain shareholder approval for their equity-based compensation plans, suggesting the use of non-approved equity-based plans is not effective. We also show though that good corporate governance neutralizes potential negative effects of non-approved plans when we measure performance as return on assets.

Overall, our results are consistent with shareholder voting rights being valuable and affecting management's behavior. Our findings suggest that, absent voting rights or good systems of corporate governance, shareholders are subject to greater losses caused by managerial expropriation of wealth using non-approved equity-based compensation plans.

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Table 1
Descriptive Statistics: Summary of Approved and Non-approved Plans[1]

Panel A: Equity compensation plan information (for the 1097 plans for the 479 firms in our sample, number of shares in thousands)

	Number of Shares Represented		Average Exercise Price		Number of Securities Approved, but Not Issued	
Plans Approved by Shareholders	N=	882	N=	882	N=	882
	Mean	5,502	Mean	12.13	Mean	3,562
Plans Not Approved By Shareholders	N=	215	N=	215	N=	215
	Mean	3,142	Mean	10.47	Mean	874

Panel B: Plans by grantee (number of plans above, percent of category below)

Grantee	Number of Approved Plans	Number of Non-approved Plans	Total
Directors	51	9	60
	(85%)	(15%)	
Non-Employee Directors	53	6	59
	(90%)	(10%)	
Officers	54	37	91
	(59%)	(41%)	
Employees	636	142	778
	(82%)	(18%)	
Other	6	6	12
	(50%)	(50%)	
SubTotal	800	200	1,000
	(80%)	(20%)	
Missing Data	82	15	97
Total	882	215	1,097

Panel C: Plans by year of implementation

Year	Approved Plans	Non-approved Plans
1978	2	0
1979	1	0
1983	2	0
1984	6	0
1985	4	1
1986	11	0
1987	16	1
1988	16	0
1989	14	4
1990	22	0
1991	19	1
1992	57	4
1993	46	6
1994	56	6
1995	71	6
1996	80	14
1997	97	23
1998	85	29
1999	80	22
2000	85	39
2001	67	32
2002	38	26
Sub Total	**875**	**214**
Year not reported	7	1
Total	**882**	**215**

[1] We hand-collect all 10-K's and proxy statements filed with the SEC between July 15th and December 15th 2002 and use a keyword search to identify firms that have equity-based compensation. Using the information disclosed in the equity-based compensation table, we identify the specific adoption dates for the firm's equity-based compensation plans. Based on this sampling process, we identify 479 firms with a total of 1,097 adopted equity-based compensation plans.

Table 2
Industry Composition of Firms in The Sample[1]

Industry[2]	*Number of Firms*	*Percent of Sample*	*Average Percent of Compustat Firms*
Mining and Construction	12	2.51	7.73
Food	17	3.55	2.34
Textiles, Printing, Publishing	18	3.76	5.14
Chemicals	8	1.67	1.82
Pharmaceuticals	20	3.76	2.84
Durable Goods	118	24.63	20.13
Computers	101	21.09	9.84
Transportation	9	1.88	5.73
Utilities	6	1.25	2.44
Retail	62	12.94	10.93
Financial Institutions	48	10.02	11.54
Real Estate	13	2.71	8.54
Service	34	7.10	9.85
Other	15	3.13	1.13
Total	479	100%	100%

[1] We hand-collect all 10-K's and proxy statements filed with the SEC between July 15th and December 15th 2002 and use a keyword search to identify firms that have equity-based compensation. Using the information disclosed in the equity-based compensation table, we identify the specific adoption dates for the firm's equity-based compensation plans. Based on this sampling process, we identify 479 firms with a total of 1,097 adopted equity-based compensation plans.

[2] We define our industry groups based on four-digit SIC codes following the name convention used in Barth et al. (1998).

Table 3
Descriptive Statistics: Comparison of Approved and Non-approved Plans

Variable	Approved Plans	Non-approved Plans	Difference
	Mean (Median)	Mean (Median)	
Performance Variables			
LAG_ROA	-0.044 (0.005)	-0.089 (-0.002)	0.045 * (0.008)
ROA	-0.033 (0.008)	-0.094 (-0.001)	0.061 ** (0.009)
FUT_ROA	-0.021 (0.010)	-0.084 (0.001)	0.063 *** (0.009)*
LAG_OPINC	-0.012 (0.023)	-0.055 (0.001)	0.042 * (0.021)*
OPINC	-0.008 (0.015)	-0.064 (0.002)	0.055 ** (0.013)
FUT_OPINC	0.001 (0.017)	-0.058 (0.000)	0.058 *** (0.017)*
Governance Variables			
INSRAT	0.203 (0.143)	0.246 (0.176)	-0.043 ** (-0.043) ***
BENOWN	0.547 (1.000)	0.447 (0.000)	0.100 *** (1.000) ***
CEOCHR	0.188 (0.000)	0.259 (0.000)	-0.071 ** (0.000) **
GOOD_GOV	0.227 (0.000)	0.158 (0.000)	0.070 ** (0.000)
Plan Characteristics			
DIRECTOR	0.202 (0.000)	0.135 (0.000)	0.068 ** (0.000) **
OFFICER	0.061 (0.000)	0.177 (0.000)	-0.116 *** (0.000) ***
Control Variables			
SIZERAT	0.201 (0.099)	0.113 (0.032)	0.089 *** (0.067)***
LNASSETS	4.460 (4.364)	4.824 (4.62)	-0.364 *** (-0.026)
NYSE	0.206 (0.000)	0.223 (0.000)	-0.017 (0.000)
NASDAQ	0.455 (0.000)	0.409 (0.000)	0.045 * (0.000) *
MERGER	0.024 (0.000)	0.097 (0.000)	-0.074 *** (0.000)***

*,**,*** indicate two-tailed significance at the 10, 5 and 1 percent level in a t-test (Wilcoxon rank sum test).

Variable Definitions:

ROA Income before extra-ordinary items and discontinued operations (annual *Compustat* data item #18) + net interest expense after tax (data item #15 – data item # 16) times (1 – effective tax rate), scaled by lagged assets (data item #6); the effective tax rate is income taxes (data item #16) divided by pre-tax income (data item #170);

LAG_ROA ROA, as defined above, the fiscal year before the plan was adopted.

FUT_ROA ROA, as defined above, the fiscal year after the plan was adopted.

OPINC Annual *Compustat* data item #13 scaled by lagged assets;

LAG_OPINC OPINC, as defined above, the fiscal year before the plan was adopted.

FUT_OPINC OPINC, as defined above, the fiscal year after the plan was adopted.

INSRAT The number of managers in the company on the board of directors divided by the total number of board members;

BENOWN An indicator variable equal to 1 if the firm has an investor that is considered a beneficial owner by SEC insider rules, and zero otherwise. SEC insider rules classify any investor owning greater than 10% of the company's stock as a beneficial owner.

CEOCHR An indicator equal to 1 if the CEO of the firm is also the Chairman of its Board of Directors, and 0 otherwise.

GOOD_GOV An indicator variable equal to 1 if the firm's board is below the median *INSRAT*, has a *CEOCHR* equal to zero, and *BENOWN* equal to one. The indicator takes the value of 0 if any of the proceeding conditions are not met.

DIRECTOR An indicator variable equal to 1 if the option plan provides options to be granted to the members of the board of directors of the company, and 0 otherwise.

OFFICER An indicator variable equal to 1 if the option plan provides options to be granted to the officers of the company, and 0 otherwise.

SIZERAT The number of shares authorized for granting by a given option plan, divided by the number of share outstanding at the end of the year (Compustat Annual Data Item #25) the plan was implemented.

LNASSETS The natural log of total assets (Compustat Annual Data Item #6).

NYSE An indicator variable equal to 1 if the firm's stock is traded on the New York Stock Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

(*NASDAQ*) An indicator variable equal to 1 if the firm's stock is traded on the NASD Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

MERGER An indicator variable equal to 1 if a given plan was implemented in a company that was subsequently merged into the company represented in the observation.

Table 4
Determinants of Approved and Non-Approved Plans[1]

Model I: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 INSRAT_j + b_4 DIRECTOR_j + b_5 OFFICER_j + b_6 SIZERAT_j + b_7 LNASSETS_j + b_8 NASDAQ_j + b_9 NYSE_j + b_{10} MERGER_j + e_j$

Model II: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 BENOWN_j + b_4 DIRECTOR_j + b_5 OFFICER_j + b_6 SIZERAT_j + b_7 LNASSETS_j + b_8 NASDAQ_j + b_9 NYSE_j + b_{10} MERGER_j + e_j$

Model III: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 CEOCHR_j + b_4 DIRECTOR_j + b_5 OFFICER_j + b_6 SIZERAT_j + b_7 LNASSETS_j + b_8 NASDAQ_j + b_9 NYSE_j + b_{10} MERGER_j + e_j$

Model IV: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 INSRAT_j + b_4 BENOWN_j + b_5 CEOCHR_j + b_6 DIRECTOR_j + b_7 OFFICER_j + b_8 SIZERAT_j + b_9 LNASSETS_j + b_{10} NASDAQ_j + b_{11} NYSE_j + b_{12} MERGER_j + e_j$

Panel A: Probit parameter estimates

		Model							
Variable	***Sign***	**I**		**II**		**III**		**IV**	
		bi	p-value[1]	bi	p-value[1]	bi	p-value[1]	bi	p-value[1]
INTCPT	?	-1.077	(0.000)	-0.885	(0.000)	-0.937	(0.000)	-0.964	(0.000)
LAG_ROA	-	0.077	(0.607)	0.025	(0.836)	0.048	(0.729)	0.079	(0.586)
ROA	-	-0.559	(0.002)	-0.557	(0.001)	-0.547	(0.003)	-0.577	(0.001)
INSRAT	+	0.558	(0.010)	---	---	---	---	0.495	(0.023)
BENOWN	-	---	---	-0.148	(0.093)	---	---	-0.171	(0.068)
CEOCHR	+	---	---	---	---	0.273	(0.023)	0.206	(0.073)
DIRECTOR	?	-0.443	(0.009)	-0.419	(0.018)	-0.424	(0.018)	-0.403	(0.017)
OFFICER	?	0.625	(0.004)	0.549	(0.002)	0.574	(0.001)	0.675	(0.000)
SIZERAT	?	-1.096	(0.006)	1.148	(0.000)	1.171	(0.000)	-1.075	(0.001)
LNASSETS	?	0.055	(0.156)	0.053	(0.146)	0.431	(0.267)	0.041	(0.300)
NYSE	?	0.124	(0.518)	0.095	(0.474)	0.077	(0.683)	0.121	(0.531)
NASDAQ	?	0.057	(0.673)	0.083	(0.658)	0.050	(0.707)	0.041	(0.759)
MERGER	?	0.216	(0.476)	0.169	(0.169)	0.177	(0.547)	0.282	(0.358)
N (Not Approved)		154		156		156		154	
N (Approve)		507		520		520		507	
Model fit relative to intercept only		39.3%		37.3%		37.5%		39.3%	

[1] p-values are one-sided where we predict the direction of the effect and two-sided otherwise.

Variable Definitions:

ROA Income before extra-ordinary items and discontinued operations (annual *Compustat* data item #18) + net interest expense after tax (data item #15 – data item # 16) times (1 – effective tax rate), scaled by lagged assets (data

item #6); the effective tax rate is income taxes (data item #16) divided by pre-tax income (data item #170);

LAG_ROA ROA, as defined above, the fiscal year before the plan was adopted.

FUT_ROA ROA, as defined above, the fiscal year after the plan was adopted.

INSRAT The number of managers in the company on the board of directors divided by the total number of board members;

BENOWN An indicator variable equal to 1 if the firm has an investor that is considered a beneficial owner by SEC insider rules, and zero otherwise. SEC insider rules classify any investor owning greater than 10% of the company's stock as a beneficial owner.

CEOCHR An indicator equal to 1 if the CEO of the firm is also the Chairman of its Board of Directors, and 0 otherwise.

DIRECTOR An indicator variable equal to 1 if the option plan provides options to be granted to the members of the board of directors of the company, and 0 otherwise.

OFFICER An indicator variable equal to 1 if the option plan provides options to be granted to the officers of the company, and 0 otherwise.

SIZERAT The number of shares authorized for granting by a given option plan, divided by the number of share outstanding at the end of the year (Compustat Annual Data Item #25) the plan was implemented.

LNASSETS The natural log of total assets (Compustat Annual Data Item #6).

NYSE Indicator variable equal to 1 if the firm's stock is traded on the New York Stock Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

NASDAQ An indicator variable equal to 1 if the firm's stock is traded on the NASD Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

MERGER An indicator variable equal to 1 if a given plan was implemented in a company that was subsequently merged into the company represented in the observation.

Table 4
Determinants of Approved and Non-Approved Plans[1]

Model I: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 INSRAT_j + b_4 DIRECTOR_j + b_5 OFFICER_j + b_6 SIZERAT_j + b_7 LNASSETS_j + b_8 NASDAQ_j + b_9 NYSE_j + b_{10} MERGER_j + e_j$

Model II: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 BENOWN_j + b_4 DIRECTOR_j + b_5 OFFICER_j + b_6 SIZERAT_j + b_7 LNASSETS_j + b_8 NASDAQ_j + b_9 NYSE_j + b_{10} MERGER_j + e_j$

Model III: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 CEOCHR_j + b_4 DIRECTOR_j + b_5 OFFICER_j + b_6 SIZERAT_j + b_7 LNASSETS_j + b_8 NASDAQ_j + b_9 NYSE_j + b_{10} MERGER_j + e_j$

Model IV: $P(\text{Plan Not Put to Shareholder Vote}) = a_j + b_1 LAG\_ROA_j + b_2 ROA_j + b_3 INSRAT_j + b_4 BENOWN_j + b_5 CEOCHR_j + b_6 DIRECTOR_j + b_7 OFFICER_j + b_8 SIZERAT_j + b_9 LNASSETS_j + b_{10} NASDAQ_j + b_{11} NYSE_j + b_{12} MERGER_j + e_j$

Panel B: Probit estimations with fixed-firm effects using only firms with both approved and non-approved plans:

		Model							
Variable	**Sign**	**I**		**II**		**III**		**IV**	
		bi	p-value[1]	bi	p-value[1]	bi	p-value[1]	bi	p-value[1]
LAG_ROA	-	1.175	(0.041)	1.075	(0.050)	1.048	(0.062)	1.126	(0.053)
ROA	-	-0.806	(0.042)	-0.808	(0.041)	-0.804	(0.041)	-0.789	(0.042)
INSRAT	+	0.425	(0.353)					0.311	(0.271)
BENOWN	-			0.141	(0.673)			0.160	(0.763)
CEOCHR	+					0.227	(0.272)	0.192	(0.302)
DIRECTOR	?	-0.283	(0.483)	-0.360	(0.353)	-0.371	(0.343)	-0.321	(0.441)
OFFICER	?	1.012	(0.010)	0.972	(0.012)	1.003	(0.014)	0.999	(0.012)
SIZERAT	?	-2.980	(0.001)	-3.013	(0.001)	-2.974	(0.001)	-2.940	(0.001)
LNASSETS	?	0.155	(0.332)	0.174	(0.273)	0.166	(0.292)	0.149	(0.353)
NYSE	?	-0.225	(0.873)	-0.230	(0.872)	-0.084	(0.954)	-0.300	(0.634)
NASDAQ	?	-0.429	(0.694)	-2.981	(0.783)	0.247	(0.813)	-0.549	(0.842)
MERGER	?	-0.081	(0.474)	-1.126	(0.864)	-0.068	(0.921)	-0.043	(0.951)
N (Not Approved)		126		127		127		126	
N (Approve)		137		138		138		137	
Model fit relative to intercept only		55.4%		55.1%		55.2%		55.4%	

[1] p-values are one-sided where we predict the direction of the effect and two-sided otherwise.

Variable Definitions:

ROA Income before extra-ordinary items and discontinued operations (annual *Compustat* data item #18) + net interest expense after tax (data item #15 – data item # 16) times (1 – effective tax rate), scaled by lagged assets (data item #6); the effective tax rate is income taxes (data item #16) divided by pre-tax income (data item #170);

LAG_ROA ROA, as defined above, the fiscal year before the plan was adopted.

FUT_ROA ROA, as defined above, the fiscal year after the plan was adopted.

INSRAT The number of managers in the company on the board of directors divided by the total number of board members;

BENOWN An indicator variable equal to 1 if the firm has an investor that is considered a beneficial owner by SEC insider rules, and zero otherwise. SEC insider rules classify any investor owning greater than 10% of the company's stock as a beneficial owner.

CEOCHR An indicator equal to 1 if the CEO of the firm is also the Chairman of its Board of Directors, and 0 otherwise.

DIRECTOR An indicator variable equal to 1 if the option plan provides options to be granted to the members of the board of directors of the company, and 0 otherwise.

OFFICER An indicator variable equal to 1 if the option plan provides options to be granted to the officers of the company, and 0 otherwise.

SIZERAT The number of shares authorized for granting by a given option plan, divided by the number of share outstanding at the end of the year (Compustat Annual Data Item #25) the plan was implemented.

LNASSETS The natural log of total assets (Compustat Annual Data Item #6).

NYSE Indicator variable equal to 1 if the firm's stock is traded on the New York Stock Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

NASDAQ An indicator variable equal to 1 if the firm's stock is traded on the NASD Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

MERGER An indicator variable equal to 1 if a given plan was implemented in a company that was subsequently merged into the company represented in the observation.

Table 5
Performance after Implementation of Approved vs. Non-Approved Plans[1]

Model I: $ROA_{(T+1)} = a_j + b_1 Not\_Approved_j + b_2 Good\_Gov_j + b_3 not\_Approved*Good\_Gov_j + b_4 ROA_j + b_5 LnAssets_j + e_j$

Model II: $OPINC_{(T+1)} = a_j + b_1 Not\_Approved_j + b_2 Good\_Gov_j + b_3 not\_Approved*Good\_Gov_j + b_4 OPINC_j + b_5 LnAssets_j + e_j$

Panel A: OLS estimation

		Model I		Model II	
Variable	Sign	bi	p-value[1]	bi	p-value[1]
Intercept	?	- 0.038	(0.03)	- 0.066	(0.00)
NOT_APPROVED	+/-	- 0.039	(0.02)	- 0.029	(0.03)
GOOD_GOV	?	0.008	(0.66)	0.012	(0.42)
NOT_APPROVED *GOOD_GOV	+	0.069	(0.04)	0.009	(0.38)
ROA	+	0.558	(0.00)	---	---
OPINC	+	---	---	0.557	(0.00)
LNASSETS	?	0.007	(0.02)	0.018	(0.00)
Number of Obs		633		631	
Adj, R-Square		45.5%		57.6%	

[1] p-values are one-sided where we predict the direction of the effect and two-sided otherwise.

Variable Definitions:

$ROA_{(T+1)}$ Income before extra-ordinary items for the fiscal year after the plan was adopted. Measured as discontinued operations (annual *Compustat* data item #18) + net interest expense after tax (data item #15 – data item # 16) times (1 – effective tax rate), scaled by lagged assets (data item #6); the effective tax rate is income taxes (data item #16) divided by pre-tax income (data item #170);

$OPINC_{(T+1)}$ Annual *Compustat* data item #13 scaled by lagged assets;

Not_Approved An indicator variable equal to 1 if the adopted an equity-based compensation plan without obtaining shareholder approval; 0 otherwise.

GOOD_GOV An indicator variable equal to 1 if the firm's board is below the median *INSRAT*, has a *CEOCHR* equal to zero, and *BENOWN* equal to one. The indicator takes the value of 0 if any of the proceeding conditions are not met.

ROA ROA, as defined above, for the fiscal year that the plan was adopted.

OPINC OPINC, as defined above, for the fiscal year that the plan was adopted.

Table 5
Performance after Implementation of Approved vs. Non-Approved Plans[1]

Model I: $ROA_{(T+1)} = a_j + b_1 Not\_Approved_j + b_2 Good\_Gov_j + b_3 not\_Approved*Good\_Gov_j + b_4 ROA_j + b_5 LnAssets_j + b_6 DIRECTOR_j + b_7 OFFICER_j + b_8 SIZERAT_j + b_9 LNASSETS_j + b_{10} NASDAQ_j + b_{11} NYSE_j + b_{12} MERGER_j + e_j$

Model II: $OPINC_{(T+1)} = a_j + b_1 Not\_Approved_j + b_2 Good\_Gov_j + b_3 not\_Approved*Good\_Gov_j + b_4 OPINC_j + b_5 LnAssets_j + b_6 DIRECTOR_j + b_7 OFFICER_j + b_8 SIZERAT_j + b_9 LNASSETS_j + b_{10} NASDAQ_j + b_{11} NYSE_j + b_{12} MERGER_j + e_j$

Panel B: OLS estimation, including determinants of decision to put plans to a vote

		Model I		**Model II**	
Variable	Sign	bi	p-value[3]	bi	p-value[3]
Intercept	?	-0.020	(0.41)	0.006	(0.71)
NOT_APPROVED	+/-	-0.032	(0.10)	-0.015	(0.20)
GOOD_GOV	?	-0.010	(0.61)	-0.022	(0.08)
NOT_APPROVED *GOOD_GOV	+	0.074	(0.04)	0.040	(0.07)
ROA	+	0.436	(0.00)	---	---
OPINC	+	---	---	0.732	(0.00)
LNASSETS	?	0.001	(0.83)	-0.001	(0.80)
LAG_ROA	?	0.177	(0.00)	---	---
LAG_OPINC	?	---	---	0.036	(0.24)
DIRECTOR	?	-0.002	(0.91)	-0.003	(0.79)
OFFICER	?	0.027	(0.26)	0.028	(0.07)
SIZERAT	?	0.031	(0.36)	0.231	(0.29)
NYSE	?	0.039	(0.09)	0.020	(0.17)
NASDAQ	?	0.000	(0.99)	-0.003	(0.72)
MERGER	?	-0.107	(0.01)	-0.045	(0.09)
Number of Obs		541		538	
Adj, R-Square		46.8%		76.3%	

[1] p-values are one-sided where we predict the direction of the effect and two-sided otherwise.

Variable Definitions:

$ROA_{(T+1)}$ Income before extra-ordinary items for the fiscal year after the plan was adopted. Measured as discontinued operations (annual *Compustat* data item #18) + net interest expense after tax (data item #15 – data item # 16) times (1 – effective tax rate), scaled by lagged assets (data item #6); the effective tax rate is income taxes (data item #16) divided by pre-tax income (data item #170);

$OPINC_{(T+1)}$ Annual *Compustat* data item #13 scaled by lagged assets;

NOT_APPROVED An indicator variable equal to 1 if the adopted an equity-based compensation plan without obtaining shareholder approval; 0 otherwise.

GOOD_GOV An indicator variable equal to 1 if the firm's board is below the median *INSRAT*, has a *CEOCHR* equal to zero, and *BENOWN* equal to one. The indicator takes the value of 0 if any of the proceeding conditions are not met.

ROA ROA, as defined above, for the fiscal year that the plan was adopted.

OPINC OPINC, as defined above, for the fiscal year that the plan was adopted.

LNASSETS The natural log of total assets (Compustat Annual Data Item #6).

LAG_ROA ROA, as defined above, for the fiscal year prior to the year the plan was adopted.

LAG_OPINC OPINC, as defined above, for the fiscal year prior to the year the plan was adopted.

DIRECTOR An indicator variable equal to 1 if the option plan provides options to be granted to the members of the board of directors of the company, and 0 otherwise.

OFFICER An indicator variable equal to 1 if the option plan provides options to be granted to the officers of the company, and 0 otherwise.

SIZERAT The number of shares authorized for granting by a given option plan, divided by the number of share outstanding at the end of the year (Compustat Annual Data Item #25) the plan was implemented.

NYSE Indicator variable equal to 1 if the firm's stock is traded on the New York Stock Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

NASDAQ An indicator variable equal to 1 if the firm's stock is traded on the NASD Exchange and 0 otherwise (Compustat Annual Data Item *ZLIST*).

MERGER An indicator variable equal to 1 if a given plan was implemented in a company that was subsequently merged into the company represented in the observation.

Table 5
Performance after Implementation of Approved vs. Non-Approved Plans

Model I: $ROA_{(T+1)} = a_j + b_1 Ex(Not\_Approved)_j + b_2 Good\_Gov_j + b_3 Ex(Not\_Approved)*Good\_Gov_j + b_4 ROA_j + b_5 LnAssets_j + e_j$

Model II: $OPINC_{(T+1)} = a_j + b_1 Ex(Not\_Approved) + b_2 Good\_Gov_j + b_3 Ex(Not\_Approved)*Good\_Gov_j + b_4 OPINC_j + b_5 LnAssets_j + e_j$

Panel C: Two-stage estimation of performance model

		Model I		Model II	
Variable	Sign	bi	p-value[1]	bi	p-value[1]
Intercept	?	-0.022	(0.35)	-0.047	(0.02)
Ex(NOT_APPROVED)	+/-	-0.033	(0.06)	-0.024	(0.08)
GOOD_GOV		-0.037	(0.43)	0.024	(0.52)
*Ex(NOT_APPROVED) *GOOD_GOV*	+	0.051	(0.09)	-0.005	(0.87)
ROA	+	0.544	(0.00)	---	---
OPINC	+	---	---	0.572	(0.00)
LNASSETS	?	0.009	(0.00)	0.017	(0.00)
Number of Obs		633		631	
Adj, R-Square		43.3%		57.5%	

[1] p-values are one-sided where we predict the direction of the effect and two-sided otherwise.

Variable Definitions:

ROA$_{(T+1)}$ Income before extra-ordinary items for the fiscal year after the plan was adopted. Measured as discontinued operations (annual *Compustat* data item #18) + net interest expense after tax (data item #15 – data item # 16) times (1 – effective tax rate), scaled by lagged assets (data item #6); the effective tax rate is income taxes (data item #16) divided by pre-tax income (data item #170);

OPINC$_{(T+1)}$ Annual *Compustat* data item #13 scaled by lagged assets;

EX(NOT_APPROVED) Calculated to be the exogenous portion of the decision to adopt a plan without shareholder approval. Obtained by first estimating the probit models in Table 4 on the exogenous variables. The predicted value from this model is then used as a proxy for the exogenous portion of the decision to adopt an equity-based compensation plan without obtaining shareholder approval.

GOOD_GOV An indicator variable equal to 1 if the firm's board is below the median *INSRAT*, has a *CEOCHR* equal to zero, and *BENOWN* equal to one. The indicator takes the value of 0 if any of the proceeding conditions are not met.

ROA ROA, as defined above, for the fiscal year that the plan was adopted.

OPINC OPINC, as defined above, for the fiscal year that the plan was adopted.

LNASSETS The natural log of total assets (Compustat Annual Data Item #6).