Firms’ Voluntary Recognition of Stock-Based Compensation Expense

DAVID ABOODY, * MARY E. BARTH, † AND RON KASZNIK †

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ABSTRACT

We investigate factors associated with firms’ decisions in 2002 and early 2003 to recognize stock-based compensation expense under Statement of Financial Accounting Standards (SFAS) No. 123. We find that the likelihood of SFAS 123 expense recognition is significantly related to the extent of the firm’s participation in capital markets, the private incentives of top management and members of the board of directors, the level of information asymmetry, and political costs. Although recognizing firms have significantly smaller SFAS 123 expense, we find no significant incremental relation between recognition likelihood and SFAS 123 expense magnitude after controlling for other factors that we expect explain the recognition decision. We also find positive and significant announcement returns for earlier announcing firms, particularly those stating that increased earnings transparency motivates their decision.

1. Introduction

The primary objective of this paper is to investigate the factors associated with firms’ decisions to recognize stock-based compensation expense as prescribed in Statement of Financial Accounting Standards (SFAS) No. 123 (FASB [1995]). SFAS 123 requires firms to calculate stock-based compensation expense based on the fair value of options granted, but permits

*Anderson Graduate School of Management, University of California at Los Angeles; †Graduate School of Business, Stanford University. We appreciate the helpful comments and suggestions from participants at the 2003 Journal of Accounting Research conference, especially Cathy Schrand, the discussant; two anonymous referees; and Philip Berger, the editor. We also appreciate the able research assistance of Yaniv Konchitchki and Julie Suh.

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firms to recognize the expense or to disclose in financial statement footnotes what net income would have been had the expense been recognized (hereafter, SFAS 123 expense). Although recognizing the expense is a voluntary accounting choice that has been available to firms since the issuance of SFAS 123 in 1995, until recently only a handful of firms had chosen to do so. In the summer of 2002, concurrent with the crisis of confidence in accounting following the financial reporting scandals of firms such as Enron and WorldCom, dozens of firms began to announce their intention to recognize SFAS 123 expense voluntarily. A unique feature of this accounting choice is that SFAS 123 expense is disclosed, and thus available, to market participants even without recognition. This raises the questions of why firms choose to recognize a disclosed amount and whether doing so has equity valuation effects.

Our first set of tests focuses on factors associated with the likelihood of SFAS 123 expense recognition. Primarily from press releases on Dow Jones News Retrieval and Lexis/Nexis, we identify 155 firms that elected to recognize the expense in 2002 and early 2003. Our tests use this sample of recognizing firms and a control sample of firms in the S&P 500, S&P 400 mid-capitalization, and S&P 600 small-capitalization indices.

First, we find that firms that are more active in the capital markets are more likely to recognize SFAS 123 expense. In particular, we find firms that issue equity and have high debt-to-equity and interest-coverage ratios are more likely to recognize SFAS 123 expense. However, we find no significant relation between the likelihood of expense recognition and a firm’s use of equity to acquire other firms. The positive association between expense recognition and capital market activity is consistent with our prediction that recognizing the expense can be a signal of favorable future firm prospects, and firms that are more active in the capital markets are more likely to reap benefits from such a signal. SFAS 123 expense recognition can be a credible signal of favorable future prospects because it unambiguously lowers net income in future periods. Because net income is commonly used in covenants in debt agreements and other contracts, we expect it is costly for firms without favorable future prospects to mimic those with favorable prospects.

We also find that likelihood of recognition is significantly associated with private incentives of top management and members of the board of directors. In particular, we find that firms with CEOs and outside directors who own more of the firm are more likely to recognize SFAS 123 expense. This positive association is consistent with our prediction that expense recognition is more likely when the CEO and board members benefit personally from any signaling benefits. We also find, as predicted, that firms with management bonus plans likely sensitive to reported earnings are less likely to recognize the expense.

Because any signaling benefits of expense recognition derive from information asymmetry, we predict that firms with more information asymmetry are more likely to recognize the expense. Our findings are consistent
with this prediction. In particular, we find that firms with less institutional ownership, which we expect to be associated with more information asymmetry, are more likely to recognize SFAS 123 expense. Because of the political debate surrounding the recognition of SFAS 123 expense, we also expect that firms with higher political costs are more likely to recognize it. Consistent with this prediction, we find that firm size is significantly and positively related to the likelihood of expense recognition. However, we find no significant relation between expense-recognition likelihood and firm profitability or the proportion of options granted to the top five executives. Additional analyses reveal that firms that are market leaders in their industries are more likely to recognize SFAS 123 expense.

Finally, although recognizing firms have significantly smaller SFAS 123 expense, we find no significant relation between the magnitude of SFAS 123 expense and the likelihood a firm recognizes SFAS 123 expense after controlling for other factors that we expect to explain the expense-recognition decision. We do not predict the sign of this relation because the magnitude of SFAS 123 expense is positively related to the costs and benefits associated with using expense recognition as a signal of favorable future prospects.

Our second set of tests focuses on the market reaction to firms’ expense-recognition announcements. We presume that firms voluntarily adopt expense recognition when they perceive the benefits of doing so exceed the costs. Consistent with this, we find that firms that were the first to announce their recognition decision experienced significant and positive announcement abnormal returns, particularly firms that explicitly stated that increased financial reporting transparency motivated their decision. The announcement returns for the later announcing firms are not significantly different from zero. Combining our two sets of tests, we find that the announcement returns are significantly and negatively related to the estimated likelihood of expense recognition, as expected. These findings, together with several additional analyses, are consistent with the idea that recognition announcements by earlier announcing firms are interpreted as a signal of favorable future prospects, and recognition announcements by later announcing firms are interpreted as adoption of an accounting change that could become mandatory in the future.

This study relates to two streams of literature. The first is the literature studying firms’ voluntary accounting choices (e.g., see Holthausen and Leftwich [1983], Watts and Zimmerman [1986], Fields, Lys, and Vincent [2001]). We contribute to this literature by identifying a relatively powerful setting in which to investigate determinants of accounting choice and by integrating our accounting choice model with tests of the market reaction to firms’ expense-recognition announcements. The second is the literature investigating the effects of recognition versus disclosure (e.g., see Imhoff and Thomas [1988], Amir [1993], Imhoff, Lipe, and Wright [1993], Bernard and Schipper [1994], Aboody [1997], Barth, Clinch, and Shibano [2003]). This limited literature focuses on whether users interpret information that is only disclosed differently from information that is recognized. We
contribute to this literature by providing insights into the factors associated with firms’ choice between recognition and disclosure, a choice firms rarely have.\(^1\)

The remainder of the paper is organized as follows. Section 2 provides background on SFAS 123 and motivations for firms to recognize SFAS 123 expense. Section 3 develops our empirical predictions and research design, and presents findings relating to factors associated with the likelihood a firm will recognize stock-based compensation expense. Section 4 proceeds analogously for our tests relating to abnormal returns at the expense-recognition announcement. Section 5 summarizes and concludes.

2. Background and Motivation

2.1 BACKGROUND

Accounting for stock-based compensation is specified in Accounting Principles Board Opinion (APB) No. 25 (APB [1973]) and SFAS 123. Under APB 25, stock-based compensation expense is measured as intrinsic value—that is, the difference between the share price and the option exercise price—on the date both the number of options granted and the exercise price are known. For most firms, stock-based compensation expense under APB 25 equals zero because most firms grant employee stock options with a fixed exercise price that equals the stock price at the date of grant. Under SFAS 123, stock-based compensation expense is measured as the fair value of the options granted, recognized over the vesting period. Because options have time value in addition to intrinsic value (Black and Scholes [1973]), stock-based compensation expense under SFAS 123 does not equal zero.

The exposure draft of SFAS 123 proposed that stock-based compensation expense, calculated based on option fair values at grant date, be recognized as an expense. However, the debate surrounding the issuance of SFAS 123 is one of the most politically controversial in the FASB’s history. Opponents mounted a vigorous campaign against the recognition provisions of the exposure draft. Also, a bill was introduced into the U.S. House of Representatives, and Congressional hearings were held, to prevent the FASB

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\(^1\) Another related stream of literature investigates the timing of adopting mandatory accounting changes. Although SFAS 123 expense recognition is voluntary, it is possible that in the political climate of 2002, recognizing firms anticipated that the Financial Accounting Standards Board (FASB) would make recognition of stock-based compensation expense mandatory, and the firms perceived it as effectively mandatory. Relating to a mandatory accounting change, Amir and Ziv [1997] investigate firms’ timing of SFAS 106 adoption and document a larger market reaction for early adopters relative to late adopters, consistent with the prediction that firms with more favorable private information adopt earlier. Also, two concurrent studies focus on SFAS 123 expense recognition (Bastian, Rajgopal, and Venkatachalam [2003], Naveen, Kale, and Naveen [2003]) and find some evidence that firms with lower financial reporting costs and a greater need to build investor confidence are more likely to elect expense recognition. These studies provide mixed evidence relating to the market reaction to firms’ expense-recognition announcements.
from issuing a final standard requiring expense recognition. However, no accounting standard setter that has considered the issue has concluded that stock-based compensation is not a recognizable expense (e.g., see International Accounting Standards Board (IASB) [2002]). In fact, the basis for conclusions section in SFAS 123 makes clear that the FASB was unanimous in its view that recognizing stock-based compensation expense would be an improvement to financial reporting.

Largely because of this political pressure, the FASB modified its proposal to permit firms either to recognize the expense based on APB 25 and disclose what net income would have been had recognition been based on SFAS 123, or to recognize the expense based on SFAS 123. Until the summer of 2002, only 5 publicly traded firms elected to recognize the expense based on the measurement provisions in SFAS 123. Beginning in the summer of 2002, more than 150 firms voluntarily adopted the recognition provisions of SFAS 123.

2.2 MOTIVATIONS FOR SFAS 123 EXPENSE RECOGNITION

Our primary objective is to investigate the factors associated with firms’ decisions to recognize SFAS 123 expense voluntarily. We presume that firms make such accounting choices only when they perceive it is cost beneficial for them to do so. Thus, we expect that recognizing firms perceive a net benefit from recognizing SFAS 123 expense. To aid in identifying factors potentially associated with the recognition decision, in this section we identify potential benefits and costs of recognizing SFAS 123 expense. To this end, we consider several potential explanations for the decision, based on prior research and anecdotal evidence.

In an efficient market, the decision to recognize a disclosed amount conveys no new information. In such markets, the recognition decision should not have equity valuation effects. However, in the presence of information asymmetry, even in an informationally efficient market, recognizing SFAS 123 expense can be an information signal with valuation effects. For example, Hughes and Levine [2003] develop a model in which even a nondissipative signal, such as the recognition of SFAS 123 expense, has valuation effects. In particular, Hughes and Levine assume that firms are capital rationed and seek to fund future operating activities by borrowing from competitive creditors. Because of adverse selection between firms and creditors, firms that publicly commit to conservative accounting choices credibly convey favorable private information about future cash flows by signaling that they expect to meet earnings-based thresholds typical in debt covenants and

\[2 \text{ Consistent with this, Aboody, Barth, and Kasznik [2004] find a significant and negative relation between share prices and returns and unrecognized SFAS 123 expense.}\]

\[3 \text{ Several studies (e.g., Hughes and Schwarz [1988]) model the signaling effect of financial reporting choices by characterizing the choices as money-burning devices. However, such models are not applicable to recognizing SFAS 123 expense because it has no direct cash flow effects.}\]
other accounting-based contracts. To the extent that technical violations of covenants and contracts are costly (e.g., DeFond and Jiambalvo [1994], Sweeney [1994]), firms with weaker prospects are deterred from mimicking this strategy. The signal relates to potential future commitments; it is not limited to providing information about firms’ ability to meet covenants in existing contracts.

Recognition of SFAS 123 expense is a conservative accounting choice consistent with that modeled in Hughes and Levine [2003] because it unambiguously lowers net income relative to the disclosure-only alternative. Also, the SFAS 123 expense-recognition choice is irreversible; because SFAS 123 states that the FASB regards recognition as preferable to disclosure, firms electing to recognize SFAS 123 expense may not switch back to only disclosing the expense. Thus, firms with more favorable future prospects can use SFAS 123 expense recognition to differentiate themselves from firms with less favorable prospects.

The ability of firms to recognize SFAS 123 expense has been available since the issuance of SFAS 123 in 1995. However, because only a handful of firms recognized the expense before the summer of 2002, we infer that firms perceived that the costs of doing so outweighed any benefits. However, it is likely that the benefits of SFAS 123 expense recognition increased during 2002. The collapse of the stock-compensation-intensive technology sector and the wave of accounting scandals focused investor, regulatory, and standard setter attention on accounting for stock-based compensation. During 2002, many market participants came to agree with standard setters that stock-based compensation results in costs to the firm that are appropriately expensed, and they began to question why firms were not recognizing SFAS 123 expense. This increased scrutiny of nonrecognition of SFAS 123 expense made it more visible and, thus, potentially more effective as an information signal.

Other events took place during 2002 that increased the potential benefits of recognizing SFAS 123 expense. In particular, public scrutiny of the use of employee and, particularly, executive stock options as compensation also increased. Thus, firms may also have used SFAS 123 expense recognition as a signal that they planned to focus on the cost effectiveness of their stock-based compensation plans and that they believed the benefits associated with their stock-based compensation exceeded the costs. If the market is informationally efficient, it is difficult to explain SFAS 123 expense recognition as a signal of stock-based compensation plan cost effectiveness. However, if managers believe that investors perceive recognition as associated with more focus on the cost effectiveness of their stock-based compensation plans, firms will elect to recognize it. It is costly for firms for which this is not the case to mimic because of potential future accounting-based contracts.

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4 This is consistent with empirical findings in Beaver et al. [1989] regarding recognition of provisions for credit losses, incremental to nonperforming loans.
Also, the crisis of confidence in the equity markets relating to accounting during this period increased investors’ focus on the quality of earnings and firms’ focus on the potential benefits of being perceived as having higher quality earnings, particularly earnings that are more transparent. If markets are informationally efficient, it also is difficult to explain SFAS 123 expense recognition as a signal of earnings quality. However, as with the signal relating to cost effectiveness of stock-based compensation plans, if managers believe that investors perceive recognition as associated with higher earnings quality, firms will elect to recognize it. If recognition increases investors’ perceptions of the firm’s earnings quality, it may reduce information asymmetry and the attendant information risk (Klein and Bawa [1977], Barry and Brown [1985, 1986], Easley and O’Hara [2003]). During 2002, many market participants came to believe that recognizing SFAS 123 expense was a signal of higher quality earnings.

Recognition of SFAS 123 expense also might have become more beneficial in the second part of 2002 because it has the potential to reduce political

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5 For example, Warren Buffet, CEO of Berkshire Hathaway Inc., argues that firms that recognize SFAS 123 expense will “develop a reputation for being believable, for not hyping things, and will be valued more than those whose CEO is flim-flamming [investors]” (BusinessWeek, July 29, 2002, p. 46). Buffet is a long-standing advocate of expense recognition. Of our 155 recognizing firms, Buffet is a member of the board of directors of or Berkshire Hathaway is an investor in 12. Our inferences relating to expense recognition likelihood are unaffected by excluding these firms.

6 Also, Barth, Clinch, and Shibano [2005] find that because of costs associated with understanding footnote disclosures and aggregation, recognition can affect the extent to which accounting information is reflected in share prices. Thus, recognition can reduce information asymmetry, even in an informationally efficient market.

7 The article, “To Expense or Not to Expense,” in BusinessWeek, July 29, 2002, p. 44, links earnings quality and the recognition of stock-based compensation expense:

To many corporate governance experts, less-hyped earnings figures will boost confidence and bring back rattled investors. That’s why companies like Coke are reacting by giving the market what it seems to be demanding: more transparency. If Coke had expensed options in 2001, earnings-per-share would have dropped by only nine cents to $1.51 from $1.60. Because Coke is not a big user of options, it is relatively easy for the soft-drink company to look bold and make the switch. Indeed, stock option grants represent only about 1.8% of Coke’s 2.5 billion shares outstanding.

Other consumer goods, manufacturing, and retail companies, hoping for a reward from investors, may follow Coke’s lead. “It gives the company a good image in the investment community,” says Tim Drake, Senior Equity Analyst for Banc One Investment Management, which owns 8.4 million Coke shares. Coke’s share price rose 95 cents, to close at $52 on July 15, after its announcement. “Companies that convince their investors that they’re committed to clear, candid, and conservative accounting are going to win the race for capital,” says Nell Minow, a corporate governance activist.

Until recently, that race was won by the companies that boosted earnings at any cost, even if it meant exaggerating revenues, hiding losses, and fraudulently listing everyday expenses as capital expenditures. The new winners will be the companies that play by the rules.
costs. During this period, there was increased pressure from shareholder activists and capital market regulators to reform existing corporate governance practices in general (e.g., Sarbanes-Oxley Act of 2002), and rules governing firms’ stock option plans in particular. Senators Levin and McCain introduced into Congress a bill that would have prohibited firms from deducting from taxable income the cost of employee stock options unless the firm also recognized it as an expense for financial reporting purposes. Also, the IASB issued a draft of a global standard on stock-based compensation that proposed recognition of the expense. Because convergence between international and U.S. standards is a commitment shared by the IASB and the FASB, the IASB proposal provides the potential of modifying the recognition and disclosure rules of SFAS 123. Thus, in light of increased scrutiny by capital market regulators following the wave of accounting irregularities, firms more sensitive to political costs might recognize SFAS 123 expense to mitigate the costs.  

Thus far, we have focused on potential net benefits to the firm associated with SFAS 123 expense recognition. However, prior research indicates accounting choices often are influenced by personal incentives of managers making the choice (see Healy and Wahlen [1999] for a summary). Therefore, we expect the recognition decision to reflect the extent to which it affects top management and members of the board of directors because of the effect on compensation contracts of lower net income or the firms being perceived more favorably by investors.

As the preceding discussion makes clear, there are several explanations for why during 2002 and early 2003 many firms elected to recognize SFAS 123 expense. We cannot discriminate among these explanations. However, they have elements in common that motivate the variables we use in our tests in section 3 that are designed to explain the recognition decision. The net benefits for recognizing firms could result in positive equity valuation effects, to the extent they are not anticipated by the market, which motivates our returns tests in section 4.

3. Likelihood of Recognizing Stock-Based Compensation Expense

3.1 EMPIRICAL PREDICTIONS

The discussion in section 2 leads to several empirical predictions relating to the likelihood a firm will recognize SFAS 123 expense. As explained, we

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8 Microsoft’s decision to recognize SFAS 123 illustrates the potential effects of political costs (Gurley [2003]).

As a reward for its dominance, Microsoft currently enjoys remarkable operating margins of nearly 50%. These margins are not particularly supportive of the arguments made in anti-trust hearings that the company faces incredibly strong competition. As such, anything that helps reduce GAAP earnings could be deemed a positive. Secondly, and also relating to recent litigation events, it is certainly in the company’s best interest to appease Washington. As Congress is currently focused on these seemingly devilish things known as options, it would be in Microsoft’s political interest to play to its concerns.
presume that firms voluntarily adopt expense recognition only when they perceive it is cost beneficial for them to do so; to the extent that this is not the case, our expense-recognition-choice model is misspecified.

Our first set of predictions relates to firms’ activity in the capital market. As explained in section 2, firms can use SFAS 123 expense recognition as a signal of favorable future prospects because it results in lower net income, and earnings-based thresholds are typical in debt covenants and other accounting-based contracts. Thus, we expect that the benefits related to expense recognition are higher for firms that are more active in the capital markets, both equity and debt. Relating to equity markets, we predict that firms that issue equity or use equity as currency in business combinations are more likely to elect expense recognition. Thus, our proxies for equity market activity are ISSUE, an indicator variable equal to 1 if the firm issued equity during the last three fiscal years, and 0 otherwise, and ACQ, an indicator variable equal to 1 if the firm used equity to acquire another firm during the last three fiscal years, and 0 otherwise. Relating to debt markets, we predict that firms with a greater propensity to access the private and public debt markets are more likely to elect expense recognition. Our proxies for debt market activity are DEBT_EQ, the ratio of long-term debt to shareholders’ equity, and INT_COV, the ratio of interest expense to operating income.9

Our second set of predictions relates to the private incentives of the firms’ top management and board of directors. In particular, to the extent management bonuses are based on reported earnings and compensation committees do not fully adjust for accounting method choices (Healy, Kang, and Palepu [1987]), we predict that firms that compensate their managers more with cash bonuses are less likely to recognize stock-based compensation expense. Our proxy for earnings-sensitive bonus plans is BONUS, the ratio of CEO cash bonus to total cash compensation.10 Because managers and directors with larger equity holdings in the firm personally benefit more from any valuation benefits related to SFAS 123 expense recognition, we predict that firms with such managers and directors are more likely to recognize the expense. Our proxy for top management’s equity-based incentives is CEO_OWN, the equity shares and options held by the CEO as a percentage of shares outstanding, and our proxy for directors’ equity-based incentives

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9 These predictions are based on viewing DEBT_EQ and INT_COV as indicators of firms’ propensity to access debt markets, not as indicators of the presence of existing debt covenants. However, if these variables capture the tightness of existing debt covenants, our tests are biased against finding results consistent with predictions for INT_COV because recognition decreases the interest-coverage ratio. Because recognition decreases the debt-to-equity ratio, the prediction for DEBT_EQ is the same under either interpretation.

10 Although the prior literature (e.g., Healy [1985]) demonstrates the importance of specific bonus plan parameters in understanding the association between management compensation and accounting choices, our tests do not consider them for several reasons. First, these parameters are not available for many of our sample firms. Second, the earnings implications of the recognition choice extend to many future periods. Therefore, the relevant question is whether the bonus plan would be in the money in subsequent periods rather than just in the adoption year. Third, measurement error resulting from omission of bonus plan details likely is relatively small (Smith and Watts [1982]).
is $OSDIR_{STK}$, the equity shares and options granted to outside directors as a percentage of shares outstanding.

As noted in section 2, using expense recognition as an information signal is only effective in the presence of information asymmetry between the firm and its outside capital providers. Thus, we predict that firms with more information asymmetry are more likely to recognize the expense. Our proxy for the extent of information asymmetry is $INSTIT$, the percentage of shares outstanding held by institutional investors as of the most recent fiscal quarter. We use $INSTIT$ as a proxy for information asymmetry because institutional investors are sophisticated; thus, firms with more institutional investors likely have less information asymmetry. Therefore, we predict a negative relation between SFAS 123 expense recognition and $INSTIT$.

Our next set of predictions relates to the effect of political costs on the recognition decision. In particular, our political cost proxies are a measure of firm size, $SIZE$, the logarithm of year-end market value of equity, and firm profitability, $PROFIT$, net income deflated by market value of equity. We expect that larger and more profitable firms are more sensitive to political pressure and thus predict a positive relation between the likelihood of SFAS 123 expense recognition and $SIZE$ and $PROFIT$.\footnote{To the extent that current profit predicts future profit, $PROFIT$ could also be positively related to the likelihood of expense recognition because it is less costly for higher profit firms to recognize the expense and commit themselves to lower future net income.} Firms with top executives receiving substantial option grants faced greater political pressure from investor groups during 2002. Thus, we also use the percentage of options granted to the top five executives, $\%OPT_{TOP5}$, as a proxy for political costs and predict that it is positively related to the likelihood of expense recognition.\footnote{Dechow, Hutton, and Sloan [1996] find that in comment letters on the exposure draft of SFAS 123, firms with more options granted to the top five executives were more likely to lobby the FASB against expense recognition. If these firms’ opposition to expensing persists, the relation between $\%OPT_{TOP5}$ and expense recognition could be negative, which biases against our finding evidence in support of our prediction. However, given that stock-based compensation expense has been disclosed in financial statement footnotes since 1995, it is not clear whether firms’ reasons for opposing the exposure draft in 1993 apply to firms’ expense-recognition decisions beginning in 2002. We expect that political costs associated with nonrecognition are higher for these firms, making it more likely they elect expense recognition.}

We also control for the magnitude of SFAS 123 expense. Our measure of the expense is $COMPEX$, the difference between reported net income and disclosed pro forma net income, which is what net income would have been had the firm recognized SFAS 123 expense, deflated by market value of equity. As explained in section 2, because expense recognition commits the firm to reporting lower earnings, currently and in the future, the larger the expense, the more costly it is for firms to recognize the expense. The magnitude of the expense also has been cited in the popular press as a reason for not expensing. However, signaling benefits associated with recognition also likely increase with the magnitude of the expense: the larger the expense,
the greater expected future prospects must be to overcome the effects of recognition. Thus, we do not predict the sign of the relation between the likelihood of expense recognition and COMPEX. Finally, because we expect that any signaling benefits from expense recognition derive from information asymmetry, we consider the interaction between INSTIT and COMPEX. However, because we do not predict the sign of the relation between COMPEX and the likelihood of expense recognition, we do not predict the sign of the interacted relation.

3.2 RESEARCH DESIGN AND DESCRIPTIVE STATISTICS

To test our predictions, we estimate equation (1), using maximum likelihood estimation:

$$RECOGNIZE_j = \sum_{N=1}^{26} \beta_0 N \text{INDN}_j + \beta_1 \text{ISSUE}_j + \beta_2 \text{ACQ}_j + \beta_3 \text{DEBT_EQ}_j + \beta_4 \text{INT_COV}_j + \beta_5 \text{BONUS}_j + \beta_6 \text{CEO_OWN}_j + \beta_7 \text{OSDIR_STK}_j + \beta_8 \text{INSTIT}_j + \beta_9 \text{SIZE}_j + \beta_{10} \text{PROFIT}_j + \beta_{11} \% \text{OPT_TOP}_5_j + \beta_{12} \text{COMPEX}_j + \beta_{13} \text{COMPEX}_j \times \text{INSTIT}_j + \varepsilon_j.$$ (1)

The dependent variable, $RECOGNIZE$, equals 1 (0) for recognizing (control) firms. $\text{INDN}_j$ is an indicator variable that equals 1 if the firm is in industry $N$ based on the industry classification in table 1, and 0 otherwise. We include $\text{INDN}_j$ to control for the potential effects of omitted variables associated with industry membership.

The control firms are the 1,090 firms in the S&P 500, S&P 400 mid-capitalization, and S&P 600 small-capitalization indices that (1) disclose stock-based compensation expense under SFAS 123 but had not elected expense recognition as of March 2003, (2) are from the same industries as at least one recognizing firm, and (3) have available data required for our analyses. We select this control group because most of the recognizing firms are included in these indices and these are the firms covered by the ExecuComp database, from which we obtain the executive compensation and share ownership variables.\textsuperscript{13} For recognizing firms not included in ExecuComp, we hand collect these variables from proxy statements. We obtain most financial statement and market data from Compustat, data to calculate $\text{ISSUE}$ and $\text{ACQ}$ from the Securities Data Corporation database.

\textsuperscript{13} We identify 156 recognizing firms, but eliminate one that concurrently announced recognition and a takeover; its announcement abnormal return exceeded 30%. Eliminating this firm has no effect on our inferences relating to expense recognition likelihood. Of the remaining 155 recognizing firms, 40 are not included in the S&P indices we use to construct our control sample. Our inferences are unaffected by excluding these 40 firms from our tests.
and data to calculate \textit{INSTITT} from the CDA/Spectrum Institutional (13-F) Holdings database. Most variables are as of the end of the firm's 2001 fiscal year. Equation (1) is a logit specification.

Table 1, panel A presents the industry classification for recognizing and control firms. It reveals that the recognizing firms represent many industries, although financial services firms (i.e., banks and insurance services firms) constitute 34.8% of the recognizing firms but only 8.9% of the control firms. Section 3.4 considers the effects on our inferences of possible industry effects. Table 1 also reveals that electrical equipment and business services constitute 3.2% and 2.6%, respectively, of the recognizing firms, but 10.0% and 12.0% of the control firms.

Table 1, panel B presents descriptive statistics for the variables used in our analyses, partitioned by recognizing and control firms. It also presents \textit{p}-values from \textit{t}-tests and Wilcoxon \textit{Z}-tests for differences in means and medians between the two sets of firms. Many differences are consistent with

\begin{table}
\centering
\caption{Industry Classification and Descriptive Statistics for Recognizing and Control Firms}
\begin{tabular}{lrrrr}

\hline
Industry & Recognizing Firms & & Control Firms & \\
\hline
Agriculture, mining & 4 & 2.6 & & 49 & 4.5 \\
Construction & 1 & 0.7 & & 18 & 1.6 \\
Food, tobacco & 1 & 0.7 & & 28 & 2.6 \\
Textile, apparel & 2 & 1.3 & & 21 & 1.9 \\
Lumber, furniture & 6 & 5.9 & & 14 & 1.3 \\
Paper & 1 & 0.7 & & 18 & 1.6 \\
Printing & 2 & 1.3 & & 26 & 2.4 \\
Chemicals & 6 & 5.9 & & 98 & 9.0 \\
Rubber, plastics & 6 & 3.9 & & 17 & 1.6 \\
Metal & 1 & 0.6 & & 63 & 5.8 \\
Machinery & 3 & 1.9 & & 88 & 8.1 \\
Electrical equipment & 5 & 3.2 & & 109 & 10.0 \\
Transportation equipment & 4 & 2.6 & & 30 & 2.8 \\
Transportation services & 3 & 1.9 & & 38 & 3.5 \\
Communications & 7 & 4.5 & & 22 & 2.0 \\
Utilities & 10 & 6.5 & & 69 & 6.3 \\
Durables—Wholesale & 1 & 0.6 & & 31 & 2.8 \\
Nondurables—Wholesale & 2 & 1.3 & & 16 & 1.5 \\
Retail & 7 & 4.5 & & 26 & 2.4 \\
Eating and drinking & 1 & 0.6 & & 18 & 1.6 \\
Misc. retail & 1 & 0.6 & & 25 & 2.3 \\
Banks & 36 & 25.2 & & 48 & 4.4 \\
Insurance services & 18 & 11.6 & & 49 & 4.5 \\
Lodging & 1 & 0.6 & & 11 & 1.0 \\
Business services & 4 & 2.6 & & 131 & 12.0 \\
Other & 22 & 14.2 & & 27 & 2.5 \\
Total & 155 & 100.0 & & 1,090 & 100.0 \\
\hline
\end{tabular}
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our predictions, but some are not. For example, consistent with predictions, DEBT_EQ and INT_COV are significantly larger for the recognizing firms than for the control firms.\footnote{We use the term \textit{significant} to denote statistical significance at the 5\% level or less.} However, %OPT_TOP5 is larger for control firms than for recognizing firms, although only significantly so at the median. Also, consistent with assertions in the popular press that firms with lower SFAS 123 expense are more likely to elect to recognize it, table 1, panel B reveals that both the mean and median of COMPEX are significantly smaller for recognizing firms. However, the comparisons in table 1, panel B are univariate; our primary tests rely on multivariate relations that consider together all of the factors that we posit to be associated with the likelihood of expense recognition.

3.3 PRIMARY FINDINGS RELATING TO LIKELIHOOD OF EXPENSE RECOGNITION

Table 2 presents summary statistics from estimating equation (1). They generally support our predictions. In particular, of the 11 coefficient
Summer of 2002, the firm announced its intention to recognize SFAS 123 expense on factors posited to explain the recognition decision. Sample comprises 155 recognizing firms and 1,090 control firms from the S&P 500, S&P 400 mid-capitalization, and S&P 600 small-capitalization indices. The dependent variable, RECOGNIZE, equals 1 (0) for recognizing (control) firms. ISSUE is an indicator variable equal to 1 if the firm issued equity during the last three fiscal years, and 0 otherwise; ACQ is an indicator variable equal to 1 if the firm used equity to acquire another firm during the last three fiscal years, and 0 otherwise; DEBT_EQ is the ratio of long-term debt to shareholders’ equity; INT_COV is the ratio of interest expense to operating income; BONUS is the ratio of CEO cash bonus to total cash compensation; CEO_OWNP is equity shares and options held by the CEO as a percentage of shares outstanding; OSDIR_STK is equity shares and options granted to outside directors as a percentage of shares outstanding; INSTIT is the percentage of shares outstanding held by institutional investors as of the most recent fiscal quarter; SIZE is the logarithm of year-end market value of equity; PROFIT is net income deflated by market value of equity; %OPT_TOP5 is the percentage of options granted to the top five executives; and COMPEX is the difference between reported net income and disclosed pro forma net income, which is what net income would have been had the firm recognized SFAS 123 expense, deflated by market value of equity. The model includes indicator variables denoting the firm’s industry membership based on the industry classification in table 1. The industry-specific intercepts are untabulated. All financial statement and market variables are as of the end of the firm’s 2001 fiscal year. The p-values are based on one-tailed tests when the prediction is directional, and on two-tailed tests otherwise.

Table 2

<table>
<thead>
<tr>
<th>Prediction</th>
<th>Coefficient Estimate</th>
<th>Z-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISSUE</td>
<td>+</td>
<td>0.41</td>
<td>1.93</td>
</tr>
<tr>
<td>ACQ</td>
<td>+</td>
<td>−0.37</td>
<td>−1.69</td>
</tr>
<tr>
<td>DEBT_EQ</td>
<td>+</td>
<td>0.05</td>
<td>2.18</td>
</tr>
<tr>
<td>INT_COV</td>
<td>+</td>
<td>0.71</td>
<td>2.35</td>
</tr>
<tr>
<td>BONUS</td>
<td>−</td>
<td>−0.86</td>
<td>−2.05</td>
</tr>
<tr>
<td>CEO_OWNER</td>
<td>+</td>
<td>2.40</td>
<td>1.77</td>
</tr>
<tr>
<td>OSDIR_STK</td>
<td>+</td>
<td>0.79</td>
<td>2.83</td>
</tr>
<tr>
<td>INSTIT</td>
<td>−</td>
<td>−2.63</td>
<td>−4.33</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.53</td>
<td>6.64</td>
</tr>
<tr>
<td>PROFIT</td>
<td>+</td>
<td>−0.15</td>
<td>−0.39</td>
</tr>
<tr>
<td>%OPT_TOP5</td>
<td>+</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>COMPEX</td>
<td>?</td>
<td>−3.92</td>
<td>−0.29</td>
</tr>
<tr>
<td>COMPEX+INSTIT</td>
<td>?</td>
<td>−0.26</td>
<td>−0.01</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>1.245</td>
<td></td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td></td>
<td>0.27</td>
<td></td>
</tr>
</tbody>
</table>

Summary statistics are from logit regression of an indicator variable denoting whether, beginning in the summer of 2002, the firm announced its intention to recognize SFAS 123 expense on factors posited to explain the recognition decision. Sample comprises 155 recognizing firms and 1,090 control firms from the S&P 500, S&P 400 mid-capitalization, and S&P 600 small-capitalization indices. The dependent variable, RECOGNIZE, equals 1 (0) for recognizing (control) firms. ISSUE is an indicator variable equal to 1 if the firm issued equity during the last three fiscal years, and 0 otherwise; ACQ is an indicator variable equal to 1 if the firm used equity to acquire another firm during the last three fiscal years, and 0 otherwise; DEBT_EQ is the ratio of long-term debt to shareholders’ equity; INT_COV is the ratio of interest expense to operating income; BONUS is the ratio of CEO cash bonus to total cash compensation; CEO_OWNP is equity shares and options held by the CEO as a percentage of shares outstanding; OSDIR_STK is equity shares and options granted to outside directors as a percentage of shares outstanding; INSTIT is the percentage of shares outstanding held by institutional investors as of the most recent fiscal quarter; SIZE is the logarithm of year-end market value of equity; PROFIT is net income deflated by market value of equity; %OPT_TOP5 is the percentage of options granted to the top five executives; and COMPEX is the difference between reported net income and disclosed pro forma net income, which is what net income would have been had the firm recognized SFAS 123 expense, deflated by market value of equity. The model includes indicator variables denoting the firm’s industry membership based on the industry classification in table 1. The industry-specific intercepts are untabulated. All financial statement and market variables are as of the end of the firm’s 2001 fiscal year. The p-values are based on one-tailed tests when the prediction is directional, and on two-tailed tests otherwise.

estimates for which we have signed predictions, 9 are consistent with our predictions and 8 are significantly different from zero. Neither coefficient estimate with an unpredicted sign is significantly different from zero.

More specifically, relating to capital markets activity, ISSUE is significantly and positively related to the likelihood of expense recognition (p-value = .027), indicating that firms active in the capital markets by issuing equity are more likely to recognize SFAS 123 expense. Also consistent with predictions, DEBT_EQ and INT_COV are significantly and positively related to recognition likelihood (p-values = .014 and .009, respectively), indicating that firms more active in debt markets are more likely to elect expense recognition. However, inconsistent with predictions, ACQ is negatively related to expense recognition, indicating that firms using stock as acquisition currency are less likely to elect expense recognition, although the negative relation is only marginally significant (p-value = .092).

Relating to top management’s and directors’ private incentives to recognize SFAS 123 expense, as predicted, BONUS is significantly and negatively
related to likelihood of recognition \((p\text{-value } = .020)\), indicating that managers whose compensation plans are sensitive to earnings are less inclined than others to recognize the expense. Also as predicted, the coefficients on \textit{CEO\_OWN} and \textit{OSDIR\_STK} are significantly and positively related to likelihood of expense recognition \((p\text{-values } = .038\text{ and } .002, \text{ respectively})\), indicating that top management and directors perceive more benefits from expense recognition when they hold larger equity positions in the firm.

Relating to information asymmetry, \textit{INSTIT} is significantly and negatively related to likelihood of expense recognition \((p\text{-value } = .001)\), consistent with our prediction that firms with more institutional investors, which indicates a more sophisticated investor base, are less likely to recognize SFAS 123 expense to mitigate information asymmetry. Relating to political costs, consistent with predictions, \textit{SIZE} is significantly and positively related to the likelihood of expense recognition \((p\text{-value } = .000)\). However, we find no evidence that \textit{PROFIT} or \%\textit{OPT\_TOP5} is related to the likelihood of expense recognition \((p\text{-values } = .694\text{ and } .472, \text{ respectively})\). Thus, we have no evidence that political pressure associated with profitability or the proportion of options granted to the top five executives affects firms’ recognition decisions.

Relating to the magnitude of stock-based compensation expense, table 2 reveals that \textit{COMPEX} is not significantly related to the likelihood of expense recognition \((p\text{-value } = .775)\).\(^{15}\) This finding indicates that the other factors expected to explain firms’ recognition decision also explain the significant difference in \textit{COMPEX} between recognizing and control firms evident in table 1, panel B. Thus, after controlling for these other factors, we find no significant incremental relation between the magnitude of stock-based compensation expense and likelihood of expense recognition.\(^{16}\) We also find no significant relation between likelihood of expense recognition and the interaction between \textit{COMPEX} and \textit{INSTIT} \((p\text{-value } = .994)\).

### 3.4 Industry Effects

To investigate the potential effects of industry membership, table 3, panel A presents findings from estimating equation (1) using firm- and industry-level explanatory variables. The firm-level variables, denoted by the subscript \(F\), are measured as differences from industry medians; the industry-level variables, denoted by the subscript \(I\), are measured as industry medians. The findings are consistent with those in table 2, but they provide insights into

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\(^{15}\) In equation (1), \textit{COMPEX} is stock-based compensation expense deflated by market value of equity. Our inferences are unaffected by deflating stock-based compensation expense by total assets, sales, total compensation, net income before extraordinary items, or net income.

\(^{16}\) Untabulated findings from estimating the table 2 specification, but omitting the fixed industry effects, reveal the same inferences as those revealed by table 2. The only difference is that the coefficient on \textit{ACQ} is insignificantly different from zero. The pseudo \(R^2\) from the untabulated specification is 0.17, indicating that including the industry fixed effects increases substantially the regression’s explanatory power.
### Table 3
Likelihood of SFAS 123 Expense Recognition and Industry Effects

<table>
<thead>
<tr>
<th>Prediction</th>
<th>Coefficient Estimate</th>
<th>Z-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Firm- and industry-level variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>$-10.43$</td>
<td>$-2.11$</td>
<td>.035</td>
</tr>
<tr>
<td>ISSUE$_F$</td>
<td>$+0.36$</td>
<td>$1.72$</td>
<td>.043</td>
</tr>
<tr>
<td>ACQ$_F$</td>
<td>$+0.18$</td>
<td>$-0.82$</td>
<td>.414</td>
</tr>
<tr>
<td>DEBT$_EQ_F$</td>
<td>$+0.04$</td>
<td>$2.00$</td>
<td>.022</td>
</tr>
<tr>
<td>INT$_{COV_F}$</td>
<td>$+0.70$</td>
<td>$2.37$</td>
<td>.009</td>
</tr>
<tr>
<td>BONUS$_F$</td>
<td>$-0.86$</td>
<td>$-2.13$</td>
<td>.017</td>
</tr>
<tr>
<td>CEO$_{OWN_F}$</td>
<td>$+2.38$</td>
<td>$1.80$</td>
<td>.036</td>
</tr>
<tr>
<td>OSDIR$_{STK_F}$</td>
<td>$+0.77$</td>
<td>$2.77$</td>
<td>.003</td>
</tr>
<tr>
<td>INSTIT$_F$</td>
<td>$-2.51$</td>
<td>$-4.21$</td>
<td>.001</td>
</tr>
<tr>
<td>SIZE$_F$</td>
<td>$+0.50$</td>
<td>$6.63$</td>
<td>.001</td>
</tr>
<tr>
<td>PROFIT$_F$</td>
<td>$+0.25$</td>
<td>$-0.63$</td>
<td>.500</td>
</tr>
<tr>
<td>%OPT$_{TOP5_F}$</td>
<td>$+0.01$</td>
<td>$0.18$</td>
<td>.428</td>
</tr>
<tr>
<td>COMPEX$_F$</td>
<td>$-7.20$</td>
<td>$-0.46$</td>
<td>.649</td>
</tr>
<tr>
<td>COMPEX* INSTIT$_F$</td>
<td>$1.65$</td>
<td>$0.05$</td>
<td>.963</td>
</tr>
<tr>
<td>ISSUE$_I$</td>
<td>$+0.78$</td>
<td>$1.18$</td>
<td>.120</td>
</tr>
<tr>
<td>ACQ$_I$</td>
<td>$+0.72$</td>
<td>$1.82$</td>
<td>.034</td>
</tr>
<tr>
<td>DEBT$_EQ_I$</td>
<td>$+2.09$</td>
<td>$-2.32$</td>
<td>.020</td>
</tr>
<tr>
<td>INT$_{COV_I}$</td>
<td>$+1.35$</td>
<td>$1.18$</td>
<td>.118</td>
</tr>
<tr>
<td>BONUS$_I$</td>
<td>$-1.91$</td>
<td>$0.80$</td>
<td>.425</td>
</tr>
<tr>
<td>CEO$_{OWN_I}$</td>
<td>$+33.24$</td>
<td>$1.04$</td>
<td>.148</td>
</tr>
<tr>
<td>OSDIR$_{STK_I}$</td>
<td>$+19.70$</td>
<td>$1.67$</td>
<td>.047</td>
</tr>
<tr>
<td>INSTIT$_I$</td>
<td>$-2.44$</td>
<td>$-0.73$</td>
<td>.233</td>
</tr>
<tr>
<td>SIZE$_I$</td>
<td>$+1.21$</td>
<td>$3.21$</td>
<td>.001</td>
</tr>
<tr>
<td>PROFIT$_I$</td>
<td>$+3.21$</td>
<td>$0.28$</td>
<td>.388</td>
</tr>
<tr>
<td>%OPT$_{TOP5_I}$</td>
<td>$+0.02$</td>
<td>$0.46$</td>
<td>.323</td>
</tr>
<tr>
<td>COMPEX$_I$</td>
<td>$105.30$</td>
<td>$0.34$</td>
<td>.733</td>
</tr>
<tr>
<td>COMPEX* INSTIT$_I$</td>
<td>$-874.63$</td>
<td>$-1.67$</td>
<td>.094</td>
</tr>
<tr>
<td>N</td>
<td>1,245</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td>0.24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Panel B: Sample of 155 recognizing and control firms matched on industry and COMPEX** | | | |
| Intercept | $-7.11$ | $-6.98$ | .000 |
| ISSUE | $+0.41$ | $1.30$ | .099 |
| ACQ | $+0.25$ | $0.77$ | .221 |
| DEBT$_EQ$ | $+0.04$ | $0.96$ | .164 |
| INT$_{COV}$ | $+0.70$ | $1.70$ | .043 |
| BONUS | $-1.97$ | $-3.04$ | .001 |
| CEO$_{OWN}$ | $+4.44$ | $2.47$ | .007 |
| OSDIR$_{STK}$ | $+0.83$ | $4.79$ | .001 |
| INSTIT | $-0.50$ | $-0.60$ | .272 |
| SIZE | $+0.89$ | $7.87$ | .000 |
| PROFIT | $+0.62$ | $-0.43$ | .665 |
| %OPT$_{TOP5}$ | $+0.01$ | $-0.10$ | .921 |
| COMPEX | $14.12$ | $0.38$ | .705 |
| COMPEX* INSTIT | $-21.73$ | $-0.23$ | .818 |
| N | 310 | | |
| Pseudo $R^2$ | 0.38 | | |
whether the associations documented in table 2 relate to firm or industry characteristics. Regarding the firm-level variables, table 3, panel A reveals the same inferences as those obtained from table 2. Thus, the inferences in table 2 relate to firm characteristics.

Regarding the industry-level variables, table 3, panel A reveals that some of the factors that are significant at the firm level are significant at the industry level, and others are not. In particular, OSDIR_STK and SIZE, which are significantly related to likelihood of expense recognition at the firm level, are also significantly related at the industry level (p-values = .047

---

### Table 3 — Continued

<table>
<thead>
<tr>
<th>Prediction</th>
<th>Coefficient Estimate</th>
<th>Z-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>?</td>
<td>-5.35</td>
<td>-6.53</td>
</tr>
<tr>
<td>ISSUE</td>
<td>+</td>
<td>0.45</td>
<td>1.98</td>
</tr>
<tr>
<td>ACQ</td>
<td>+</td>
<td>-0.13</td>
<td>-0.53</td>
</tr>
<tr>
<td>DEBT_EQ</td>
<td>+</td>
<td>0.04</td>
<td>2.58</td>
</tr>
<tr>
<td>INT_COV</td>
<td>+</td>
<td>0.87</td>
<td>2.80</td>
</tr>
<tr>
<td>BONUS</td>
<td>−</td>
<td>-1.38</td>
<td>-2.90</td>
</tr>
<tr>
<td>CEO_OWN</td>
<td>+</td>
<td>3.34</td>
<td>2.63</td>
</tr>
<tr>
<td>OSDIR_STK</td>
<td>+</td>
<td>0.91</td>
<td>2.90</td>
</tr>
<tr>
<td>INSTTT</td>
<td>−</td>
<td>-2.62</td>
<td>-3.90</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.54</td>
<td>6.69</td>
</tr>
<tr>
<td>PROFIT</td>
<td>+</td>
<td>0.07</td>
<td>0.16</td>
</tr>
<tr>
<td>%OPT_TOP5</td>
<td>+</td>
<td>0.01</td>
<td>1.64</td>
</tr>
<tr>
<td>COMPEX</td>
<td>?</td>
<td>-8.99</td>
<td>-0.55</td>
</tr>
<tr>
<td>COMPEX * INSTTT</td>
<td>?</td>
<td>-6.43</td>
<td>-0.18</td>
</tr>
<tr>
<td>N</td>
<td>1,094</td>
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<td></td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary statistics are from logit regression of an indicator variable denoting whether, beginning in the summer of 2002, the firm announced its intention to recognize SFAS 123 expense on factors posted to explain the recognition decision. The results reported in panel A are based on 155 recognizing firms and 1,090 control firms from the S&P 500, S&P 400 mid-capitalization, and S&P 600 small-capitalization indices. Each explanatory variable is partitioned into firm and industry levels. The industry level is measured as the median value for the industry (denoted with the subscript \( \Delta \)) and the firm level is measured as the value for the firm minus the industry median (denoted with the subscript \( \Delta \)). The results reported in panel B are based on matched samples of 155 recognizing and control firms. Firms are matched on four-digit SIC code and SFAS 123 expense in 2001. The results reported in panel C are based on 101 recognizing firms and 993 control firms from the S&P 500, S&P 400 mid-capitalization, and S&P 600 small-capitalization indices. It excludes financial institutions from the recognizing sample (54 firms) and control group (97 firms). The dependent variable, RECOGNIZE, equals 1 (0) for recognizing (control) firms. ISSUE is an indicator variable equal to 1 if the firm issued equity during the last three fiscal years, and 0 otherwise; ACQ is an indicator variable equal to 1 if the firm used equity to acquire another firm during the last three fiscal years, and 0 otherwise; DEBT_EQ is the ratio of long-term debt to shareholders’ equity; INT_COV is the ratio of interest expense to operating income; BONUS is the ratio of CEO cash bonus to total cash compensation; CEO_OWN is equity shares and options held by the CEO as a percentage of shares outstanding; OSDIR_STK is equity shares and options granted to outside directors as a percentage of shares outstanding; INSTTT is the percentage of shares outstanding held by institutional investors as of the most recent fiscal quarter; SIZE is the logarithm of year-end market value of equity; PROFIT is net income deflated by market value of equity; %OPT_TOP5 is the percentage of options granted to the top five executives; and COMPEX is the difference between reported net income and disclosed pro forma net income, which is what net income would have been had the firm recognized SFAS 123 expense, deflated by market value of equity. All financial statement and market variables are as of the end of the firm’s 2001 fiscal year. The p-values are based on one-tailed tests when the prediction is directional, and on two-tailed tests otherwise.
and 0.001, respectively). These findings indicate that some aspects of directors’ private incentives and political costs are factors that distinguish recognizing industries as well as recognizing firms. Although ACQ is insignificant at the firm level (p-value = .414), but significant at the industry level (p-value = .034), ISSUE, INT_COV, BONUS, CEO_OWN, and INSTIT, which are significantly related to likelihood of expense recognition at the firm level, are insignificantly related at the industry level (p-values = .120, .118, .425, .148, and .233, respectively). These findings indicate that capital market activity, management’s private incentives, and information asymmetry distinguish recognizing firms, but not necessarily recognizing industries. DEBT_EQ is significantly related to likelihood of expense recognition at the firm and industry levels, but the sign of the industry-level relation is opposite to predictions. PROFIT, %OPT_TOP5, COMPEX, and the interaction between COMPEX and INSTIT are insignificantly related to likelihood of expense recognition at the firm and industry levels.

To explore further whether correlation between SFAS 123 expense and industry membership could affect our inferences in unspecified ways, we estimate equation (1) using a control sample of firms that are matched to the recognizing firms on industry, using four-digit Standard Industrial Classification (SIC) codes, and COMPEX. Table 3, panel B presents the findings. It reveals findings similar to those in table 2 except that the coefficients on DEBT_EQ and INSTIT are not significantly different from zero (p-values = .164 and .272, respectively), although their signs are consistent with predictions. Because we match the control firms to the recognizing firms on COMPEX, the insignificant coefficient on COMPEX (p-value = .705) indicates our matching procedure is effective.

Many financial services firms simultaneously announced their expense-recognition decision, many as part of the Financial Services Forum. Such an industrywide decision could reflect factors other than those we posit, which could affect our inferences. Financial institutions also differ from firms in other industries in ways that could affect our inferences (e.g., they likely have lower stock-based compensation expense and may have a different investor base). Thus, table 3, panel C presents findings from estimating equation (1) after eliminating financial institutions from the recognizing (54 firms) and control (97 firms) samples. Panel C reveals inferences consistent with those revealed by table 2. The only difference is that %OPT_TOP5 is marginally significantly and positively related to the likelihood of expense recognition (p-value = .051), indicating that for nonfinancial firms, the proportion of options granted to the top five executives is significantly associated with the recognition decision, consistent with our predictions relating to political costs.

3.5 ADDITIONAL ANALYSES

We perform several additional analyses to investigate the robustness of our findings and to provide additional insights. First, table 2 reveals that larger firms are more likely to recognize SFAS 123 expense. To investigate whether it is size per se that explains the recognition decision or whether size
is a proxy for an industry leader effect, we estimate equation (1) including the firm’s market share, $MKT\_SHARE$, as an additional explanatory variable, where $MKT\_SHARE$ equals the firm’s sales divided by the sum of the sales in the industry. The untabulated findings reveal that for the full sample of firms, the coefficient on $MKT\_SHARE$ is not significantly different from zero ($p\text{-value} = .199$). Because of the industrywide financial services firms’ expense-recognition decision, we also estimate this specification excluding financial institutions. The untabulated findings reveal that for nonfinancial firms, $MKT\_SHARE$ is significantly and positively related to the likelihood of expense recognition ($p\text{-value} = .012$), indicating that recognizing firms are industry market leaders. Our other inferences are unaffected by including $MKT\_SHARE$ in the estimating equation or by excluding financial institutions. The exception is that, consistent with table 3, panel C, $\% OPT\_TOP5$ is significantly related to likelihood of expense recognition for nonfinancial firms.

Second, to investigate whether firms’ corporate governance is associated with likelihood of expense recognition, we estimate equation (1) including the corporate governance index developed in Gompers, Ishii, and Metrick [2003]. This index is available for all but 33 (57) recognizing (control) firms. Corporate governance might affect firm’s recognition decision because, for example, a strong governance structure could counteract private incentives of top management and directors. Untabulated comparisons of the index’s mean and median for our recognizing and control firms reveal that recognizing firms have a higher index, and the difference in medians is significant. The median (mean) for recognizing and control firms is 8.75 (9.00) and 8.46 (8.00), and the $p$-value for the difference is .029 (.274). However, untabulated findings from estimating equation (1) including this index as an additional explanatory variable reveal that the index is not significantly related to the likelihood of expense recognition.

Third, our analyses thus far assume that 2001 SFAS 123 expense is the amount firms consider in making the recognition decision. However, it is possible that recognizing firms anticipate lower expense in the future. To investigate this possibility, we compare the ratio of the number of options granted to options outstanding in 2002 and 2001 for the recognizing and matched control firms used in the table 3, panel B analysis. Untabulated statistics reveal a reduction in the number of options granted in 2002 relative to 2001 for both groups. Although the reduction is more pronounced for recognizing firms, the difference is not significant ($p$-values of mean and median differences are .395 and .545, respectively). This finding is inconsistent with the idea that recognizing firms anticipate a larger reduction in stock-based compensation expense than do control firms.17

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17 For several reasons, this analysis does not use 2002 SFAS 123 expense as the amount firms consider. First, most recognizing firms (130 of 155) elected to adopt SFAS 123 prospectively. Thus, 2002 expense is much smaller than the expense will be once these firms reach full implementation, and it is unclear whether firms consider the 2002 expense or the full implementation expense. Second, in 2002 many firms experienced a reduction in fair value of
We include in equation (1) \textit{ISSUE} and \textit{ACQ} as proxies for firms’ activity in the equity markets, and we use \textit{DEBT_EQ} and \textit{INT_COV} as proxies for firms’ debt covenants in existing or future debt contracts. We next investigate whether recognizing firms are in fact more active in the equity and debt markets after they announce their intention to recognize stock-based compensation expense. In particular, we test whether in the period between the firm’s recognition announcement and September 30, 2003, the latest date for which subsequent data are available, recognizing firms issue more equity and debt, and engage in more stock-for-stock acquisitions than do the matched control firms. For the control firms, we use the same period as for their matched recognizing firm. The untabulated statistics reveal that recognizing firms issue more equity and debt in the post-announcement period than do control firms, but they do not engage in more stock-for-stock acquisitions. These findings are consistent with our tabulated findings.

4. Market Reaction to Announcement of Recognizing SFAS 123 Expense

4.1 Research Design and Primary Findings

We assume that firms that choose to recognize SFAS 123 expense do so because the benefits exceed the costs. Several of the potential benefits described in section 2 stem from signaling positive information to the capital markets. However, our tests in section 3 do not address whether positive valuation effects exist. In this section, we investigate whether recognizing firms experience positive abnormal returns when they announce their intention to recognize SFAS 123 expense.

To conduct our tests, we estimate announcement abnormal returns by estimating the following equation separately for each firm:

\[
RET_{jt} = \alpha_j + \beta_j MRET_t + \gamma_j EVENT_{jt} + \epsilon_{jt},
\]  

(2)

where \( RET_{jt} \) is firm \( j \)'s daily stock return; \( MRET_t \) is the value-weighted daily market return, including dividends; \( EVENT_{jt} \) is an indicator variable equal to 1 for firm \( j \)'s expense-recognition announcement date, and 0 otherwise; and \( t \) denotes each of the 252 trading days in calendar year 2002.\(^{18} \) Thus, \( \gamma_j \) is an estimate of firm \( j \)'s announcement abnormal return. Figure 1 presents a histogram of announcement dates by calendar month. Because we are unable to locate press releases, and thus the announcement date, for seven options granted, a key factor in determining SFAS 123 expense, because of decreased stock price. However, it is not clear whether the market decline had occurred by the time the firms announced their decision to recognize the expense. Third, some recognizing firms did not adopt until 2003; therefore, the post-recognition expense amount is not available to us.

\(^{18} \) The announcement date is the trading day on which the firm issues a press release announcing the expense-recognition decision. The announcement date is determined from the date and time stamp on the press release; when the announcement is made after trading hours, the announcement date is identified as the next trading day.
FIG. 1.—Frequency distribution of announcement month. Sample of 155 firms that, beginning in the summer of 2002, announced their intention to recognize voluntarily stock-based compensation expense under SFAS 123. Announcement months were determined by searching Lexis/Nexis and Dow Jones News Retrieval for the press release detailing the firm’s decision to recognize the expense.

2003 announcing firms, the returns analysis is based on 148 recognizing firms.

Table 4, panel A presents summary statistics relating to the firm-specific regressions. It presents the mean of the $\gamma_j$ estimates as well as two Z-statistics to test whether the mean differs from zero. The first set of columns in panel A reveals that for the full sample of recognizing firms, the mean announcement return is positive, 0.11%, but not significantly different from zero ($Z_1 = 1.28$ and $Z_2 = 0.65$).

This overall insignificant announcement return could be attributable to the market’s anticipation of firms’ announcements. However, earlier announcements might not have been anticipated fully by the market. Thus, we test whether the firms that announce their recognition decisions earlier experience positive announcement returns but firms that announce later do not. To this end, we partition firms based on the date of their announcement. Figure 1 reveals that 32 recognizing firms announced in July 2002, 64 announced in August 2002, and 59 announced subsequently. The large number of firms announcing in August includes members of the Financial Services Forum, who announced their decisions simultaneously. We consider the July announcers to be early announcers and all others to be late.

19 $Z_1$ equals $(1/\sqrt{F}) \sum_{j=1}^{F} (t_j/\sqrt{k_j/(k_j-2)})$, where $F$ is the number of firms, $t_j$ is the $t$-statistic on the estimated coefficient on EVENT for firm $j$, and $k_j$ is the degrees of freedom for firm $j$. $Z_2$ equals (mean $t$)/(std deviation $t/\sqrt{(F-1)}$) (see White [1984] and Bernard [1987]).
TABLE 4
SFAS 123 Expense-Recognition Announcement Abnormal Returns

Panel A: Summary statistics from firm-specific estimation of announcement abnormal returns

<table>
<thead>
<tr>
<th>Sample</th>
<th>Combined</th>
<th>Early Announcers</th>
<th>Late Announcers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Z1</td>
</tr>
<tr>
<td>All recognizing firms</td>
<td>148</td>
<td>0.11%</td>
<td>1.28</td>
</tr>
<tr>
<td>Firms without concurrent announcements</td>
<td>64</td>
<td>0.13%</td>
<td>1.33</td>
</tr>
</tbody>
</table>

Panel B: Summary statistics from regression of announcement abnormal returns on likelihood of expense recognition

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prediction</th>
<th>Coefficient Estimate</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>?</td>
<td>0.010</td>
<td>1.96</td>
<td>.053</td>
</tr>
<tr>
<td>Prob</td>
<td>−</td>
<td>−0.022</td>
<td>−1.68</td>
<td>.047</td>
</tr>
<tr>
<td>N</td>
<td>148</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td></td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sample comprises 155 firms that, beginning in the summer of 2002, announced their intention to recognize SFAS 123 stock-based compensation expense. For 7 of the recognizing firms, the announcement date was not identified. Thus, returns tests are based on the remaining 148 firms. The announcement date is the trading day on which the firm issues a press release announcing the expense-recognition decision. The announcement date is determined from the date and time stamp on the press release; when the announcement is made after trading hours, the announcement date is identified as the next trading day. The sample is partitioned to early announcers (late announcers) based on whether the recognition announcement was made before (after) July 31, 2002. For a subset of 64 recognizing firms, press releases issued during the three-day window around the recognition announcement contained no concurrent announcements (e.g., earnings releases, management forecasts, cash payouts, or mergers and acquisitions). Announcement abnormal return is measured for each sample firm \( j \) as the estimated coefficient \( \gamma_j \) on the indicator variable \( EVENT_j \) in the following firm-specific regression:

\[
RET_{jt} = \alpha_j + \beta_1 \cdot MBET_{jt} + \gamma_j \cdot EVENT_{jt} + \varepsilon_{jt},
\]

where \( RET_j \) is firm \( j \)'s daily stock return; \( MBET \) is the value-weighted daily market return (including dividends); \( EVENT \) is an indicator variable that equals 1 on the day firm \( j \) announced its intention to recognize stock-based compensation expense, and 0 otherwise; and \( t \) denotes each of the 252 trading days in calendar year 2002. For 14 firms with an announcement date in calendar year 2003, the estimation is based on the 252 trading days ending March 31, 2003. \( Prob \) is the predicted probability of SFAS 123 expense recognition from the logit specification in Table 2. \( Z_1 \) equals \((1/\sqrt{F}) \sum_{j=1}^{F} (t_j/\sqrt{k_j/(k_j-2)})\), where \( F \) is the number of firms, \( t_j \) is the \( t \)-statistic on the estimated coefficient on \( EVENT \) for firm \( j \), and \( k_j \) is the degrees of freedom for firm \( j \). \( Z_2 \) equals \((\text{mean } t)/(\text{std deviation } t/\sqrt{(F-1)})\).
announcers. Consistent with the market not fully anticipating the recognition announcements of the early announcers, the second set of columns in table 4, panel A reveals that the early announcers have positive and significant announcement returns ($Z_1 = 4.22$ and $Z_2 = 2.01$). The third set of columns reveals that announcement returns for the late announcers are not significantly different from zero ($Z_1 = -0.77$ and $Z_2 = -0.41$).\(^{20}\)

The analyses underlying the panel A findings do not control for other information in firms’ press releases, and the effects of concurrent announcements could confound the interpretation of these findings as relating to the SFAS 123 recognition announcement. Thus, panel A also presents statistics for the 64 firms whose press releases contain no concurrent announcements, such as earnings releases, management forecasts, cash payouts, or mergers and acquisitions. The findings for these firms are consistent with those of the full sample, indicating that our inferences are not affected by concurrent announcements.

The abnormal announcement return might be expected to be a reaction to the unexpected, or unpredicted, extent of the expense-recognition announcement. In particular, the announcement returns might be expected to be lower when the recognition decision is more probable. Thus, the abnormal announcement returns might be expected to be negatively related to the predicted probability of expense recognition estimated in section 3. Therefore, we estimate a regression of announcement abnormal returns on the predicted probability of expense recognition based on equation (1), estimated using the specification in table 2.\(^{21}\) Table 4, panel B presents the findings and, consistent with predictions, reveals a significant and negative relation between announcement returns and the predicted probability of expense recognition ($p$-value $= .047$).\(^{22}\)

4.2 ADDITIONAL ANALYSES

As previously noted, many financial institutions announced simultaneously their decision to recognize SFAS 123 expense, potentially confounding our inferences relating to announcement returns. Thus, we partition

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\(^{20}\) Untabulated tests reveal that the mean and median abnormal returns for the early and late announcers differ significantly ($p$-values $= .037$ and .016, respectively). Untabulated findings from estimating the three groups separately reveal that the returns for the August announcers are very similar to the returns for the later announcers. Thus, we aggregate them in the tabulated results.

\(^{21}\) We also estimate a regression of announcement abnormal returns on the explanatory variables in equation (1). Untabulated findings reveal that none of the variables is significantly related to returns, except $PROFIT$. The tabulated specification increases the power of the test by aggregating the effects of the explanatory variables.

\(^{22}\) Because abnormal announcement returns are estimated, using equation (2), we also estimate the table 4, panel B specification using raw returns and raw returns minus the value-weighted market return as alternative dependent variables. Our inferences are unaffected. In particular, in the raw returns (raw returns minus the market return) specification, the $p$-value associated with the negative coefficient on the predicted probability of expense recognition is .009 (.018).
firms into financial firms and nonfinancial firms, and test for significance of the announcement abnormal returns as in table 4, panel A. Table 5, panel A presents the findings. It reveals inferences similar to those in table 4, panel A for financial and nonfinancial firms. In particular, when early and late announcers are combined, the mean announcement return is not significantly different from zero for either group ($Z_1 = 1.60$ and $Z_2 = 0.81$ for nonfinancial firms, and $Z_1 = 0.01$ and $Z_2 = 0.01$ for financial firms). However, as in table 4, panel A, the announcement returns are significant and positive for early announcers, both nonfinancial and financial firms, except for financial firms based on $Z_2$ ($Z_1 = 3.54$ and $Z_2 = 1.65$ for nonfinancial firms, and $Z_1 = 2.32$ and $Z_2 = 1.04$ for financial firms). Also as in table 4, panel A, the announcement returns are not significantly different from zero for late announcers ($Z_1 = -0.04$ and $Z_2 = -0.02$ for nonfinancial firms, and $Z_1 = -1.23$ and $Z_2 = -0.65$ for financial firms). These findings provide no evidence that group announcements of financial firms affect our inferences.

Section 2 indicates that some firms may have elected to recognize SFAS 123 expense because they wanted investors to perceive them as high-financial-reporting-transparency firms. In their press releases, 32% of recognizing firms explicitly state that increased transparency is a reason for their decision to recognize stock-based compensation expense. Thus, we also partition recognizing firms based on whether the press release includes such a statement. Table 5, panel B presents the findings. The first set of columns reveals that firms that explicitly mention increased transparency as a reason for expense recognition have significant and positive announcement abnormal returns ($Z_1 = 3.09$ and $Z_2 = 1.72$). Firms not mentioning increased transparency have insignificant announcement abnormal returns ($Z_1 = -0.53$ and $Z_2 = -0.26$).

Next, we investigate whether it is the early announcers that mention increased transparency as a reason for the recognition decision that have positive and significant announcement returns. The second set of columns in table 5, panel B reveals that timing combined with an explicit statement identifies firms with positive and significant announcement returns ($Z_1 = 4.50$ and $Z_2 = 1.92$). Early announcers that make no mention of increased transparency have positive returns that are significant based on $Z_1$ but not significant based on $Z_2$ ($Z_1 = 1.65$ and $Z_2 = 0.85$). The third set of columns reveals that late announcers do not have significant announcement abnormal returns, regardless of whether they mention increased transparency ($Z_1 = 0.72$ and $Z_2 = 0.50$ for firms that mention increased transparency, and $Z_1 = -1.35$ and $Z_2 = -0.66$ for firms that do not).

We conduct additional analyses to shed light on plausible explanations for our finding of positive and significant abnormal announcement returns for early announcers and insignificant returns for late announcers. However, the power of the tests associated with these alternative explanations is low; therefore, their findings should be interpreted with caution. One explanation is that the probability of expense recognition is higher for late
### Table 5
**Additional Analyses Related to SFAS 123 Expense-Recognition Announcement Returns**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Combined</th>
<th>Early Announcers</th>
<th>Late Announcers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N Mean</td>
<td>Z1</td>
<td>Z2</td>
</tr>
<tr>
<td>Nonfinancial firms</td>
<td>94 0.24%</td>
<td>1.60</td>
<td>0.81</td>
</tr>
<tr>
<td>Financial firms</td>
<td>54 −0.10%</td>
<td>−0.01</td>
<td>−0.01</td>
</tr>
</tbody>
</table>

**Panel A: Recognizing firms partitioned into financial and nonfinancial industry groups**

Panel B: Increased financial reporting transparency as a stated reason for SFAS 123 expense-recognition decision

| Mention | 46 0.92% | 3.09 | 1.72 | 14 2.74% | 4.50 | 1.92 | 32 0.12% | 0.72 | 0.50 |
| No mention | 102 −0.25% | −0.53 | −0.26 | 18 0.08% | 1.65 | 0.85 | 84 −0.32% | −1.35 | −0.66 |

Sample comprises 155 firms that, beginning in the summer of 2002, announced their intention to recognize SFAS 123 stock-based compensation expense. For 7 of the recognizing firms, the announcement date was not identified. Thus, returns tests are based on the remaining 148 firms. The announcement date is the trading day on which the firm issues a press release announcing the expense-recognition decision. The announcement date is determined from the date and time stamp on the press release; when the announcement is made after trading hours, the announcement date is identified as the next trading day. The sample is partitioned to early announcers (late announcers) based on whether the recognition announcement was made before (after) July 31, 2002. In panel A, the sample of recognizing firms is partitioned into financial and nonfinancial firms. Banks and insurance services firms are classified as financial firms, and all other firms are classified as nonfinancial firms. In panel B, the sample of recognizing firms is partitioned based on whether the press release explicitly stated that increased financial reporting transparency is a reason for the firm’s decision to recognize SFAS 123 expense. Announcement abnormal return is measured for each sample firm $j$ as the estimated coefficient $\gamma_j$ on the indicator variable $EVENT_j$ in the following firm-specific regression:

$$RET_{jt} = \alpha_j + \beta_j MRET_t + \gamma_j EVENT_j + \epsilon_{jt}$$

where $RET_{jt}$ is firm $j$'s daily stock return; $MRET_t$ is the value-weighted daily market return (including dividends); $EVENT_j$ is an indicator variable that equals 1 on the day firm $j$ announced its intention to recognize stock-based compensation expense, and 0 otherwise; and $t$ denotes each of the 252 trading days in calendar year 2002. For 14 firms with an announcement date in calendar year 2003, the estimation is based on the 252 trading days ending on March 31, 2003. $Z_1$ equals $\left(1/\sqrt{F} \sum_{j=1}^F t_j / \sqrt{k_j} / (k_j - 2)\right)$, where $F$ is the number of firms, $t_j$ is the $t$-statistic on the estimated coefficient on $EVENT$ for firm $j$, and $k_j$ is the degrees of freedom for firm $j$ HR. $Z_2$ equals $\left(\frac{\text{mean} \ t_j}{\text{std deviation} \ t_j / \sqrt{F - 1}}\right)$.
announcers, resulting in less of a surprise associated with their announce-
ments. However, untabulated statistics reveal no significant difference in
the mean and median predicted probability of expense recognition based
on equation (1) for early and late announcers (p-values = .370 and .495,
respectively).

A second explanation is that the market did not anticipate the announce-
ments by the early announcers but did anticipate the announcements by
the late announcers. If so, one would expect a run-up in the returns of the
late announcers between the dates of the early and late announcements.
Thus, we estimate the cumulative market-adjusted returns (i.e., raw return
minus the value-weighted market return) for the late announcers between
the date of the first early announcer’s announcement and the date of the
late announcer’s announcement. The untabulated mean and median cu-
mulative returns are 0.002 and −0.001, respectively, both of which are not
significantly different from zero (p-values = .882 and .850, respectively),
providing no indication of a run-up in returns.

A third explanation is that the positive and significant announcement
returns for the early announcers resulted from hype, and the market later
realized that expense recognition is a nonevent. If so, the early announcers’
announcement returns would be expected to reverse. Thus, we estimated
the cumulative market-adjusted returns for the early announcers between
the date of their announcement and September 30, 2003, the latest date
for which returns data are readily available. The untabulated mean and
median cumulative returns for all early announcers are 0.094 and 0.007,
respectively, and the mean and median returns for the eight early announc-
ers with no concurrent announcements are 0.080 and −0.101, respectively,
all of which are not significantly different from zero (p-values = .226 and
.596 for all early announcers, and p-values = .690 and .383 for the eight
announcers with no concurrent announcements), indicating no reversal of
returns.

There is another explanation that it is consistent with the evidence pre-
sented. That is, the early announcers’ positive announcement returns re-
fect the market’s reassessment of the firms’ future prospects, suggesting
the announcement is a positive signal about such prospects, and the late
announcers’ insignificant returns reflect the market’s reassessment that ex-
 pense recognition will become mandatory in the future, suggesting there is
no signaling effect associated with the late announcements.

5. Summary and Concluding Remarks

We investigate the factors associated with firms’ decisions, beginning in
the summer of 2002, to recognize SFAS 123 expense voluntarily. We as-
sume that firms make voluntary accounting choices only when they perceive
that the benefits of doing so outweigh the costs. Thus, we also investigate
whether the expense-recognition announcements are associated with a pos-
itive market reaction.
Consistent with predictions, we find that the likelihood of recognizing SFAS 123 expense voluntarily is significantly related to the extent of the firm’s participation in the capital markets, the private incentives of top management and directors, the level of information asymmetry, and political costs. Although recognizing firms have significantly smaller SFAS 123 expense, we find no significant relation between the magnitude of SFAS 123 expense and the likelihood a firm recognizes the expense after controlling for the other factors expected to explain the expense-recognition decision.

We also find that the firms that were the first to announce their recognition decision experienced positive and significant announcement abnormal returns, particularly firms that explicitly stated that increased financial reporting transparency motivated their decision.

Our study contributes to the literatures investigating firms’ voluntary accounting choices and recognition versus disclosure. We find that, like other discretionary accounting choices, firms’ decisions to recognize stock-based compensation expense depend on the incentives facing firms and their managers. Whether investors fully understand this discretionary behavior and modify their valuation assessments accordingly is a question we leave for future research. However, our returns findings suggest that investors assess positive valuation effects associated with the recognition of SFAS 123 expense, which previously had been only disclosed.

REFERENCES


