



## The economic implications of corporate financial reporting<sup>☆</sup>

John R. Graham<sup>a</sup>, Campbell R. Harvey<sup>a,b,\*</sup>, Shiva Rajgopal<sup>c</sup>

<sup>a</sup>*Duke University, Durham, NC 27708, USA*

<sup>b</sup>*National Bureau of Economic Research, Cambridge, MA 02138, USA*

<sup>c</sup>*University of Washington, Seattle, WA 98195, USA*

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\*Corresponding author. Duke University, Durham, NC 27708, USA. Tel.: +1 919 660 7768; fax: +1 919 660 8030.

*E-mail address:* [cam.harvey@duke.edu](mailto:cam.harvey@duke.edu) (C.R. Harvey).

## Abstract

We survey and interview more than 400 executives to determine the factors that drive reported earnings and disclosure decisions. We find that managers would rather take economic actions that could have negative long-term consequences than make within-GAAP accounting choices to manage earnings. A surprising 78% of our sample admits to sacrificing long-term value to smooth earnings. Managers also work to maintain predictability in earnings and financial disclosures. We also find that managers make voluntary disclosures to reduce information risk and boost stock price but at the same time, try to avoid setting disclosure precedents that will be difficult to maintain.

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## 1. Introduction

We conduct a comprehensive survey that asks CFOs to describe their choices related to reporting accounting numbers and voluntary disclosure. Our objective is to address the following questions: Do managers care about earnings benchmarks or earnings trends and, if yes, which benchmarks are perceived to be important? What factors motivate firms to exercise discretion, and even sacrifice economic value, to manage reported earnings? How well do various academic theories explain earnings management and voluntary disclosure? We triangulate our answers to these questions with those from analytical and archival empirical research to enhance our understanding of these issues.

We investigate these questions using a combination of field interviews and a survey instrument. Using these methods allows us to address issues that traditional empirical work based on large archival data sources cannot. A combination of surveys and field interviews enables us to (i) get financial officers to rate the relative importance of extant academic theories about financial reporting policies; (ii) discover new patterns of behavior and new explanations for known patterns; and (iii) highlight stylized facts on issues that are relatively hard to document from archival data, such as earnings benchmarks, earnings guidance, and the identity of the marginal investor. Overall, our evidence provides a reference point describing where academic research and real-world financial reporting policies are consistent and where they appear to differ.<sup>1</sup>

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<sup>1</sup>An extensive archival and experimental literature addresses earnings benchmarks and motivations for earnings management and voluntary disclosures. Papers that summarize this literature include Fields et al. (2001), Kothari (2001), Healy and Palepu (2001), Dechow and Skinner (2000) and Healy and Wahlen (1999).

Our results indicate that CFOs believe that earnings, not cash flows, are the key metric considered by outsiders. The two most important earnings benchmarks are quarterly earnings for the same quarter last year and the analyst consensus estimate. Meeting or exceeding benchmarks is very important. Managers describe a trade-off between the short-term need to “deliver earnings” and the long-term objective of making value-maximizing investment decisions. Executives believe that hitting earnings benchmarks builds credibility with the market and helps to maintain or increase their firm’s stock price.

The severe stock market reactions to small EPS misses can be explained as evidence that the market believes that most firms can “find the money” to hit earnings targets. Not being able to find one or two cents to hit the target might be interpreted as evidence of hidden problems at the firm. Additionally, if the firm had previously guided analysts to the EPS target, then missing the target can indicate that a firm is managed poorly in the sense that it cannot accurately predict its own future. Both of these scenarios breed uncertainty about a firm’s future prospects, which managers believe hurts stock valuation. Managers are willing to make small or moderate sacrifices in economic value to meet the earnings expectations of analysts and investors to avoid the severe market reaction for under-delivering. In contrast, they say that they are hesitant to employ within-GAAP accounting adjustments to hit earnings targets, perhaps as a consequence of the stigma attached to accounting fraud in the post-Enron environment.

An overwhelming majority of CFOs prefer smooth earnings (versus volatile earnings). Holding cash flows constant, volatile earnings are thought to be riskier than smooth earnings. Moreover, smooth earnings ease the analyst’s task of predicting future earnings. Predictability of earnings is an over-arching concern among CFOs. The executives believe that less predictable earnings—as reflected in a missed earnings target or volatile earnings—command a risk premium in the market. A surprising 78% of the surveyed executives would give up economic value in exchange for smooth earnings.

Most executives feel they are making an appropriate choice when sacrificing economic value to smooth earnings or to hit a target. The turmoil that can result in equity and debt markets from a negative earnings surprise can be costly (at least in the short-run). Therefore, many executives feel that they are choosing the lesser evil by sacrificing long-term value to avoid short-term turmoil. In other words, given the reality of severe market (over-) reactions to earnings misses, the executives might be making the optimal choice in the existing equilibrium. CFOs argue that the system (i.e., financial market pressures and overreactions) encourages decisions that at times sacrifice long-term value to meet earnings targets. This logic echoes the evidence in the [Brav et al. \(2005\)](#) survey on corporate payout policy. They find that strong stock market reactions drive executives to avoid cutting dividends at all costs, even if this means bypassing positive NPV investments.

Companies voluntarily disclose information to facilitate “clarity and understanding” to investors. Executives believe that lack of clarity, or a reputation for not consistently providing precise and accurate information, can lead to under-pricing of a firm’s stock. In short, disclosing reliable and precise information can reduce

“information risk” about a company’s stock, which in turn reduces the required return. Managerial concerns about revealing sensitive information to competitors and worries about starting disclosure precedents that are difficult to maintain (such as manager-provided earnings forecasts) constrain voluntary disclosure. In some cases, managers say that they release bad news earlier than good news in order to build credibility with the capital market and avoid potential lawsuits. At the same time, we find that poorly performing firms are more likely to delay bad news.

When benchmarked against the existing literature, we believe that our evidence offers four key insights. First, accounting earnings matter more to managers than cash flows for financial reporting purposes, which contrasts with the emphasis on cash flows found in the finance literature. This might indicate that earnings have more information content about firm value than do cash flows. Alternatively, it might indicate that managers inappropriately focus on earnings instead of cash flows. Second, managers are interested in meeting or beating earnings benchmarks primarily to influence stock prices and their own welfare via career concerns and external reputation, and less so in response to incentives related to debt covenants, credit ratings, political visibility, and employee bonuses that have traditionally been the focus of academic work (e.g., [Watts and Zimmerman, 1978, 1990](#)). Third, holding cash flows constant, managers care a lot about smooth earnings paths. This concern has been somewhat under-emphasized in the academic literature (see [Ronen and Sadan, 1981](#) for an early reference on smoothing). Finally, managers are willing to sacrifice economic value to manage financial reporting perceptions. It is difficult for archival empirical research to convincingly document such behavior.

Our work is related to, but in important ways differs from and adds to, three other survey papers. [Nelson et al. \(2002, 2003\)](#) survey one audit firm to learn about company attempts to manage earnings that were detected by the auditors. [Hodge \(2003\)](#) seeks to assess the earnings quality perceptions of small investors. The key difference between our work and prior research is that we find direct evidence of managers’ willingness to give up real economic value to manage financial reporting outcomes.<sup>2</sup> Our research differs from prior survey work in four other ways. First, rather than rely on third-party perceptions of what motivates CFOs’ financial-reporting decisions, we survey and interview the decision-makers directly. A potential disadvantage of our approach is that executives may be unwilling to admit to undesirable behavior, especially if agency issues are important. However, given that executives admit to sacrificing economic value to achieve reporting objectives, unwillingness to admit to undesirable behavior does not appear to be a major problem in our study. Moreover, an advantage of directly asking the CFOs is that they presumably have the best information about the circumstances

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<sup>2</sup>[Nelson et al. \(2002\)](#) find that auditors identify a modest number of earnings management attempts as “structured transactions” with real costs (e.g., transaction costs), especially among the 38 leasing transactions and the consolidations of the equity/cost method that they identify. In contrast, our results indicate that sacrificing value to achieve earnings targets is much more pervasive than identified by auditors.

surrounding their decisions.<sup>3</sup> Second, the scope of our survey is broader, in that we cover both earnings management and voluntary disclosure practices. Third, we sample a large cross-section of firms. Fourth, we analyze survey responses conditional on firm characteristics. We examine the relation between the executives' response and firm size, P/E ratio, leverage, credit rating, insider stock ownership, industry, CEO age, and the education of the CEO. By examining conditional responses, we attempt to shed light on the implications of various disclosure and earnings management theories related to firm heterogeneity in size, risk, investment opportunities, informational asymmetry, analyst coverage, level of guidance, and management incentives.

Several other broad themes emerge from our analysis. Corporate executives pay a lot of attention to stock prices, personal and company reputation, and predictability. Agency concerns, such as internal and external job prospects, lead executives to focus on personal reputation to deliver earnings and run a stable firm. Stock market valuation, especially related to earnings predictability, causes an executive to be concerned about her company's reputation for delivering reliable earnings and disclosing transparent information. Earnings are thought to be unpredictable if they are volatile or if the firm under-performs earnings benchmarks, and unpredictability leads to low stock returns. A poor reputation for delivering transparent and reliable information can increase the information risk of a firm, also hurting stock performance. Executives believe that the market sometimes misinterprets or overreacts to earnings and disclosure announcements; therefore, they work hard to meet market expectations so as not to raise investor suspicions or doubts about their firms' underlying strength.

Fig. 1 summarizes the organization of the paper. The two main topics of interest are performance measurements and voluntary disclosure. Section 3.1 presents evidence that earnings, not cash flows, are perceived by CFOs to be the most important performance measure reported to outsiders. The remainder of Section 3 explores the relative importance of various earnings benchmarks and provides data on the motivations for meeting earnings benchmarks. Section 4 focuses on actions taken by managers to meet benchmarks, including sacrificing economic value. Section 5 discusses the economic motivations for smoothing earnings paths, as well as the perceived identity of the marginal investor. Section 6 investigates the economic motivations that drive managers' decisions to voluntarily disclose information, and the timing of voluntary disclosures. The last section offers some concluding remarks.

## 2. Method

### 2.1. *Surveys versus archival research*

Most large-sample archival analyses provide statistical power and cross-sectional variation. However, these studies can suffer from several weaknesses related to

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<sup>3</sup>Further, unlike archival work where executive decisions are filtered by the subsequent decisions and perceptions of auditors and others in the financial reporting process, we observe the decision process without such filtering.

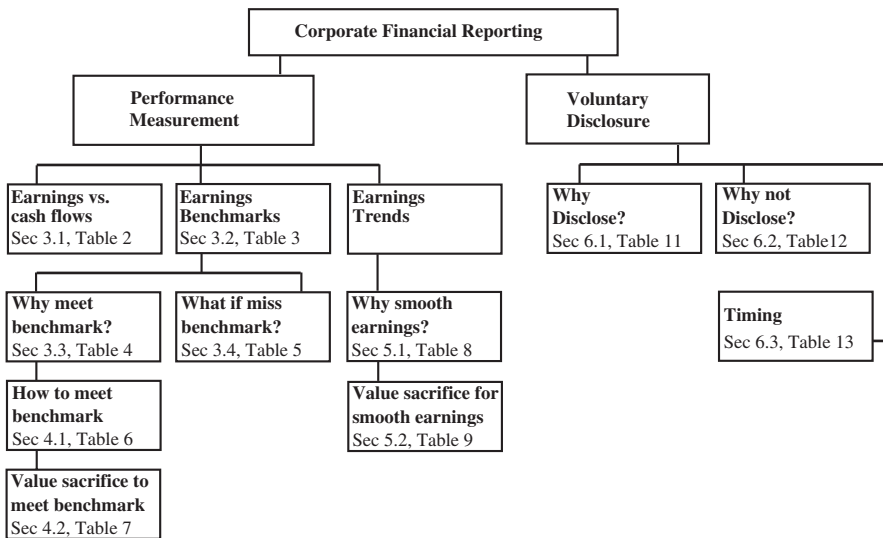


Fig. 1. Organization of the paper.

variable specification and the inability to ask qualitative questions. First, large sample analyses cannot always speak to the relative importance of competing hypotheses for a phenomenon because the explanatory variable with the least measurement error might dominate in a regression analysis. Second, developing good empirical proxies for voluntary disclosure, and especially earnings management, is non-trivial. For example, difficulties associated with measuring earnings management using various versions of the Jones (1991) model have been extensively discussed in the literature (see Guay et al., 1996; Healy and Wahlen, 1999; Dechow and Skinner, 2000). Third, in some cases, large-sample studies cannot assess which theory best fits the data because key variables potentially proxy for multiple theories. For example, size might explain cross-sectional variation in reporting decisions because of political costs, the information environment, or firm risk. In contrast, surveys and interviews offer an opportunity to ask CFOs very specific and qualitative questions about the motivation behind financial reporting choices. Moreover, the survey and interview format enables us to adopt an integrated perspective on the trade-offs between multiple goals underlying earnings management and disclosure (as recommended by Fields et al., 2001), rather than focus on one narrow explanation for these phenomena. Surveys can also suggest new explanations that have not been previously considered by academic researchers.

Another noteworthy feature of the survey methodology is that it enables us to explore the assumptions underlying theories of earnings management and disclosure. Archival research typically tests the predictions of a theory (presumably following Friedman, 1953). We also test implications from models. In addition, we investigate the viability of the assumptions behind a given theory, which can lead to identification of the most realistic assumptions for model building (Hausman, 1992).

The survey methodology suffers from several potential limitations. Surveys measure beliefs, which may not always coincide with actions. Moreover, executives can potentially parrot explanations that they learned in business school (because they think this is what we want to hear), rather than state their true beliefs. It is also possible that executives make (close to) optimal decisions, even if they do not articulate their explanation in academic terms when describing the decision-making process. Perhaps some of the survey questions are misunderstood. It is also possible that the respondents are not representative of the underlying population. Even with these considerations, we hope to provide unique information about how firms make financial reporting decisions. We hope that researchers will use our results to develop new theories or potentially modify or abandon existing views. We also hope that practitioners and students benefit from our analysis by noting how firms operate and also where practice diverges from academic recommendations.

## 2.2. Survey design and delivery

We developed the initial survey instrument based on a review of the voluntary disclosure and earnings management literatures. The draft survey contained 10 questions, most with subsections. We solicited feedback from several academic researchers and CFOs on the survey content and design. We also distributed drafts to marketing research experts who specialize in survey design and execution. Our goal was to minimize biases induced by the questionnaire and to maximize the response rate. We used the penultimate version of the survey to conduct beta tests to seek feedback and to make sure that the time required to complete the survey was reasonable. Our beta testers took 10–15 minutes to complete the survey. Based on this and other feedback, we made changes to the wording of some questions and added two more questions. The final survey contained 12 questions, and the paper version was five pages long. The survey is posted at <http://faculty.fuqua.duke.edu/~jgraham/finrep/survey.htm>.

We used two different versions of the survey, with the ordering scrambled on the non-demographic questions. We were concerned that the respondents might (i) abandon the survey as they filled out questions that had many subparts; and/or (ii) be unduly influenced by the order of the questions. If the first concern is valid, we would expect to see a higher proportion of respondents answering the subparts that appear at the beginning of any given question. If the second concern is valid, we would expect the answers to differ depending on the version of the survey. However, we find no evidence that the response rate or quality of responses depends on the ordering of the questions.

We used two mechanisms to deliver the survey. First, we e-mailed the survey to 3,174 members of an organization of financial executives. The executives have the job title of CFO, Chief Accounting Officer, Treasurer, Assistant Treasurer, Controller, Assistant Controller, or Vice President (VP), Senior VP or Executive VP of Finance. While an overwhelming majority of survey respondents and interviewees hold the CFO title, for simplicity we often refer to the entire group as CFOs. As a secondary effort, we contacted executives at CFO forums at the

University of Illinois and the University of Washington.<sup>4</sup> Two hundred and sixty-seven CFOs responded to the Internet survey, for a response rate of 8.4%.

Second, a paper version of the survey was administered at a conference of financial executives conducted on November 17 and 18, 2003 in New York City. This conference was attended by a wide variety of companies. Before the keynote address, the executives filled out a paper version of the survey that was placed on their chairs. We used this approach in an attempt to obtain a large response rate, and in fact approximately one-fifth of the conference attendees, or 134 participants, completed the survey. These respondents make up approximately one-third of our final sample. Untabulated analyses reveal no important differences in the survey answers across the two groups.

Averaged across the two ways in which the survey was administered, our response rate of 10.4% falls close to those reported by several recent surveys of financial executives. For example, Trahan and Gitman (1995) report a response rate of 12% in a survey mailed to 700 CFOs, while Graham and Harvey (2001) obtain a 9% response rate for 4,400 faxed surveys. Brav et al. (2005) have a 16% response rate. Of the 405 total responses, four sets of two were responses from the same firm, so we averaged each pair into a single observation (leaving 401 unique firm responses). We delete seven incomplete responses, to permit full comparability across all questions. Finally, 46 of the responses are from private firms and 36 do not indicate whether they are public or private. Other than when we directly compare public firms to the 46 private firms, the analysis below is based on the 312 responses that we can classify as public firms.<sup>5</sup>

### 2.3. Interview design and delivery

In addition to the survey, we separately conducted 20 one-on-one interviews with senior executives (typically the CFO or Treasurer). We approached 24 executives but four declined to be interviewed. To identify interview subjects, we chose firms in different industries and with different analyst coverage and market capitalization. These firms are not randomly picked because we purposefully sought cross-sectional variation in their financial reporting policies. Six of the 20 interviews were conducted in person and the rest were done via telephone. The interviews were arranged with the understanding that the identity of the firms and executives will remain anonymous.

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<sup>4</sup>We thank Dave Ikenberry and Jennifer Koski for coordinating the administration of the survey to the Forum on Corporate Finance and the University of Washington CFO Forum, respectively.

<sup>5</sup>Note that 129 survey respondents reported their company name voluntarily. In unreported analysis, we find (i) no important differences in these firms' responses versus responses from firms that remained anonymous; and (ii) no important differences between CFOs who responded quickly to the survey versus those who responded late. Thus, we do not find any evidence that executives who might have an "axe to grind" (and who might respond quickly) were more likely to respond to the survey, nor to be more revealing in their answers. Note further that finding no differences in early versus late responses can be interpreted as not finding evidence of non-response bias.



We conduct interviews according to the scientific practices described in [Sudman and Bradburn \(1983\)](#). At the beginning of each interview, we ask the executive to describe his or her policy related to voluntary disclosures, the importance of financial benchmarks, and the ways to achieve such benchmarks. Before embarking on the survey and interviews, we needed a definition of earnings management. [Dechow and Skinner \(2000\)](#) point out that (i) earnings management is not consistently defined in the academic and practitioner literature; and (ii) earnings management can incorporate both fraud and aggressive accounting choices within GAAP. We explicitly rule out fraudulent transactions in both our survey instrument and interviews. Our focus is primarily on actions permitted within the bounds of GAAP.

Also consistent with [Sudman and Bradburn \(1983\)](#), “riskier” questions are asked later in the interview. We attempt to conduct the interview so as not to ask leading questions or influence the answers. We also try to avoid affecting the initial direction of the interviews with a pre-set agenda. Rather, we let the executive tell us what is important at his or her firm about voluntary disclosure and reported earnings, and then we follow up with clarifying questions. Many of the clarifying questions are similar to those that appear on the survey. Whenever possible, we numerically code the interviews ([Flanagan, 1954](#)). This helps us link the two sources of information.

The interviews varied in length, lasting from 40 to 90 minutes. The executives were remarkably candid. We integrate the interviews with the survey results to reinforce or clarify the survey responses. In general, the interviews provide insight and depth to further our understanding of the survey responses. In the remainder of the text, the primary exposition is based on the surveys, often followed by observations from the interviews. In most cases, interview comments appear in an identifiable paragraph; however, in some cases interview material appears in quotation marks.

#### *2.4. Summary statistics and data issues*

[Table 1](#), panel A presents self-reported summary information about characteristics of the sample firms. The survey gathered demographic information frequently used in archival research to consider conditioning effects of financial reporting practices. In particular, the survey instrument asks for firm characteristics often used to proxy for potential agency issues (CEO characteristics and corporate insider stock ownership), size effects (sales revenue), growth opportunities (P/E and growth in earnings), free cash flow effects (profitability), informational effects (public versus private, which stock exchange for public firms), industry and credit rating effects, and variables specific to financial reporting practices (number of analysts, whether guidance is provided). We did not explicitly define some of these characteristics on the survey instrument due to space limitations. Therefore, for some variables such as “earnings guidance” we use the word generically in the survey instrument. The likely result is that respondents base their answers on the “common” definition of the word. Finally, note that the statistics are based on the non-missing values for each particular variable.

The companies range from small (15.1% of the sample firms have sales of less than \$100 million) to very large (25.6% have sales of at least \$5 billion). Furthermore,

Table 1  
Panel A: Demographic characteristics of the survey participants

<i>Ownership</i>	Percent	<i>Industry</i>	Percent
Public/NYSE	51.1	Retail and Wholesale	8.6
Public Nasdaq/Amex	36.0	Tech [Software/Biotech]	13.9
Private	12.8	Bank/Finance/Insurance	13.2
		Manufacturing	30.7
<i>CEO age</i>		Public utility	3.3
≤39	2.3	Transportation/Energy	5.3
40–49	25.6	Other	12.2
50–59	49.5		
≥60	22.7	<i>Insider ownership</i>	
		<5%	45.2
<i>CEO tenure</i>		5–10%	20.3
<4 yr	36.9	11–20%	12.1
4–9 yr	33.0	>20%	22.3
≥10 yr	30.1	<i>Number of analysts</i>	
		None	7.8
<i>CEO education</i>		1–5	39.9
College degree	33.0	6–10	21.6
MBA	36.0	11–15	14.1
Non-MBA masters	12.5	>16	16.7
>masters	15.2		
		<i>Guidance provided</i>	
<i>Revenues</i>		0. None	19.3
<\$100 million	15.1	1. A little	18.0
\$100–499 million	22.0	2.	8.5
\$500–999 million	12.8	3. Moderate	32.0
\$1–4.9 billion	24.6	4.	13.7
>\$5 billion	25.6	5. A lot	8.5
<i>Number of employees</i>			
<100	5.2		
100–499	13.6		
500–999	5.5		
1,000–2,499	12.9		
2,500–4,999	13.9		
5,000–9,999	13.9		
>10,000	35.0		

*Note:* Frequencies are based on non-missing observations. Guidance is not explicitly defined on the survey instrument.

7.8% of the firms do not have any analyst coverage, while 16.7% are covered by at least 16 analysts. We also collect information about CEOs (implicitly assuming that the executives that we survey act as agents for the CEOs).

Table 1, panel B presents Pearson correlations among the demographic variables. One interesting relation is that the number of analysts covering a firm is higher for firms that provide more earnings guidance ( $\rho = 0.363$ ), consistent with archival evidence in Lang and Lundholm (1996). Managerial stock ownership is negatively correlated with the number of analysts ( $\rho = -0.243$ ). This correlation may occur

because managerial ownership is inversely related to firm size ( $\rho = -0.318$  between ownership and firm revenues) and analyst following increases with firm size ( $\rho = 0.639$  between number of analysts and firm revenues).

Table 1 panels C and D compare the firms in our sample to Compustat firms in terms of sales, debt-to-assets, dividend yield, earnings per share, credit rating, book to market, and price-earnings ratios. For each variable, in each panel, we report the sample average and median, and compare these values to those for the universe of Compustat firms as of November 2003 (the month we conducted most of the survey). We benchmark our survey data to Compustat because most archival finance and accounting research uses Compustat. The table reports the percentage of sample firms that fall into each quintile (based on separate Compustat quintile breakpoints for each variable). The reported percentages can then be compared to the benchmark 20% for each quintile, which allows us to infer whether our samples are representative of Compustat firms, and if so, in which dimensions.

Relative to the Compustat universe, the firms in our sample have high sales, debt, profits, and credit ratings. However, these factors are correlated with each other. When we control for firm size (by only including Compustat firms that have sales revenue within 0.25% of a firm in our sample) in unreported analysis, the surveyed and interviewed firms are similar in every dimension to Compustat firms, except that our firms have somewhat higher credit ratings. While on the one hand this benchmarking suggests that our sample is not fully representative of start-ups or firms in distress, it also indicates that our sample captures the big players that drive the aggregate U.S. economy.

### 3. The importance of reported earnings

#### 3.1. EPS focus

CFOs state that earnings are the most important financial metric to external constituents (Table 2, panel A, row 1 and Fig. 2). One hundred fifty nine of the respondents rank earnings as the number one metric, relative to 36 top ranks each for revenues and cash flows from operations. This finding could reflect superior informational content in earnings over the other metrics.<sup>6</sup> Alternatively, it could reflect myopic managerial concern about earnings. The emphasis on earnings is noteworthy because cash flows continue to be the measure emphasized in the academic finance literature.

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<sup>6</sup>Empirical evidence suggests that earnings explain more of the cross-sectional variation in stock returns or stock prices relative to operating cash flows (e.g., Rayburn, 1986; Wilson, 1986; Bowen et al., 1987; Bernard and Stober, 1989; Dechow, 1994; Barth et al., 2001; Liu et al., 2002). The theoretical literature has also argued that merely reporting cash flows, as opposed to some accounting measure such as earnings, can impose a perverse informational cost to investment over and above the real cost of investment (e.g., Kanodia and Mukherji, 1996).

Table 1  
Panel B. Pearson correlation coefficients of the demographic variables—includes only firms with analyst following

	Leverage	Profitable P/E ratio	Sales growth	Stock price	Firm age	Owner-ship age	CEO age	CEO tenure	CEO education	Revenues of employees	Number of ship	Insider ownership	Number of analysts
Profitable	-0.042												
P/E ratio	-0.219***	-0.016											
Sales growth	0.116*	0.094	-0.080										
Stock price	-0.030	0.207***	0.014	0.076									
Firm age	0.092	0.199***	-0.123*	0.142**									
Ownership	-0.181***	-0.196***	0.044	0.108*	-0.360***								
CEO age	0.045	0.151**	0.033	0.021	0.077	0.171***	-0.144**						
CEO tenure	0.027	0.135**	-0.033	0.159**	0.070	-0.127**	0.111*	0.314***					
CEO education	0.031	-0.041	0.034	0.053	0.023	-0.024	-0.010	-0.023	-0.033				
Revenues	0.071	0.306***	0.001	0.233***	0.339***	-0.536***	0.127**	-0.100*	-0.063				
Number of employees	0.076	0.343***	-0.007	0.246***	0.357***	-0.448***	0.151**	-0.061	-0.072	0.844***			
Insider ownership	-0.071	0.037	0.143**	0.019	-0.242***	0.249***	-0.064	0.238***	-0.076	-0.291***	-0.194***		
Number of analysts	0.004	0.184***	0.176**	0.049	0.142**	0.032	-0.229***	-0.090	0.066	0.580***	0.487***	-0.212***	
Guidance provided	-0.049	0.075	0.013	0.186***	0.036	0.036	-0.058	-0.024	0.140**	0.316***	0.265***	-0.160***	0.363***

Note: Demographic correlations for ownership, CEO age, CEO tenure, CEO education, revenues, number of employees, insider ownership, number of analysts and guidance provided are based on the categories defined in Table 1, panel A. Credit rating is quantified on a scale of 1 = Aaa and 32 = D. Profitability, P/E ratios, sales growth, stock prices and firm age, are drawn directly from the survey responses. \*, \*\*, \*\*\* correspond to  $p$ -value = <0.1, 0.05, 0.01, respectively.

Table 1  
Panel C: Representativeness of interviewed firms

Variable	Compustat breakpoint quintiles					
	1	2	3	4	5	
Sales	Universe avg.	10.57	47.07	152.76	544.38	7576.06
	Sample avg.	47601.16	23591.00	123.30		53186.79
	Sample size	0	0	2	0	17
	Sample %	0.00	0.00	10.53	0.00	89.47
Debt/Assets	Universe avg.	0.00	0.01	0.09	0.22	0.49
	Sample avg.	0.23	0.00	0.10	0.24	0.45
	Sample size	1	1	5	8	4
	Sample %	5.26	5.26	26.32	42.11	21.05
Dividend yield	Universe avg.	0.00	0.00	0.00	0.00	0.19
	Sample avg.	0.02	0.00	0.00	0.01	0.04
	Sample size	5	0	0	5	9
	Sample %	26.32	0.00	0.00	26.32	47.37
Earnings per share	Universe avg.	-3.11	-0.30	0.31	1.09	5.56
	Sample avg.	1.18	1.96	-5.00	1.33	2.92
	Sample size	3	1	0	4	11
	Sample %	15.79	5.26	0.00	21.05	57.89
Credit rating	Universe avg.	18.1(B-)	14.7(BB-)	12.4(BBB-)	10.4(BBB+)	7.4(A+)
	Sample avg.	8.7(A-)	7(A+)	14(BB)	11(BBB)	5.8(AA-)
	Sample size	27(D)	15(BB-)	1	2	12
	Sample %	1	1	1	2	12
Book to market value	Universe avg.	5.88	5.88	5.88	11.76	70.59
	Sample avg.	0.50	0.26	0.67	0.97	4.10
	Sample size	11	5	1	1	1
	Sample %	57.89	26.32	5.26	5.26	5.26
Price to earnings ratio	Universe avg.	-36.49	-0.98	9.54	15.84	58.44
	Sample avg.	7.20	17.50	10.10	16.72	25.79
	Sample size	2	2	3	5	7
	Sample %	10.53	10.53	15.79	26.32	36.84

Table 1 (continued)

Variable	Sample average	Sample median	Compustat breakpoint quintiles				
			1	2	3	4	5
Price to earnings ratio (>0)	19.63	18.34	7.63	12.31	15.64	21.47	81.74
Universe avg.							
Sample avg.			7.92	11.19	15.81	21.88	31.78
Sample size			1	2	3	7	2
Sample %			6.67	13.33	20.00	46.67	13.33
<i>Panel D: Representativeness of surveyed public firms</i>							
Sales (survey declared)	2185.74	3000.00	10.57	47.07	152.76	544.38	7576.06
Universe avg.							
Sample avg.			0	50.00	0	465.57	4019.61
Sample size			0	46	0	106	153
Sample %			0.00	15.08	0.00	34.75	50.16
Sales	5497.29	672.59	10.57	47.07	152.76	544.38	7576.06
Universe avg.							
Sample avg.			10.53	47.59	150.27	553.95	12919.32
Sample size			9	14	14	30	47
Sample %			7.89	12.28	12.28	26.32	41.23
Debt/Assets (survey declared)	0.31	0.28	0.00	0.01	0.09	0.22	0.49
Universe avg.							
Sample avg.			0.00	0.03	0.11	0.25	0.55
Sample size			42	11	32	76	112
Sample %			15.38	4.03	11.72	27.84	41.03
Dividend yield	0.012	0.000	0.000	0.000	0.000	0.005	0.193
Universe avg.							
Sample avg.			0.000	0.000	0.010	0.010	0.037
Sample size			64	0	0	20	32
Sample %			55.17	0.00	0.00	17.24	27.59
Earnings per share (survey declared)	2.81	1.56	-3.11	-0.30	0.31	1.09	5.56
Universe avg.							
Sample avg.			0	0.00	0.43	1.14	4.60
Sample size			0	1	27	74	107
Sample %			0.00	0.48	12.92	35.41	51.20
Earnings per share	0.71	0.89	-3.11	-0.30	0.31	1.09	5.56
Universe avg.							
Sample avg.			-2.70	-0.35	0.34	1.10	2.68
Sample size			18	12	23	24	37
Sample %			15.79	10.53	20.18	21.05	32.46

	Universe avg. Sample avg. Sample size Sample %	9.8(BBB+)	10(BBB+)	18.1(B-) 17.8(B-)	14.7(BB-) 15.2(BB-)	12.4(BBB-) 12.9(BB+)	10.4(BBB+) 10.5(BBB)	7.4(A+) 5.9(AA-)
Credit rating (survey declared)				12 6.09	11 5.58	46 23.35	44 22.34	84 42.64
Book to market value	Universe avg. Sample avg. Sample size Sample %	0.74	0.60	-23.49 0.07 26 22.81	0.44 0.44 27 23.68	0.67 0.68 25 21.93	0.97 0.96 20 17.54	4.10 2.17 16 14.04
Price to earnings ratio (survey declared)	Universe avg. Sample avg. Sample size Sample %	18.55	17.00	-36.49 0 0.00	-0.98 0.75 1 0.48	9.54 9.85 53 25.24	15.84 15.81 83 39.52	58.44 28.23 73 34.76
Price to earnings ratio (>0) (survey declared)	Universe avg. Sample avg. Sample size Sample %	18.55	17.00	7.63 7.81 29 13.81	12.31 12.29 39 18.57	15.64 15.38 45 21.43	21.47 20.94 68 32.38	81.74 37.02 29 13.81

The table reports summary statistics on the representativeness of both the interviewed (panel C) and surveyed firms (panel D) relative to the universe of firms listed on the NYSE, AMEX, and NASDAQ and with CRSP share codes of 10 or 11. Comparison is based on the following variables: sales, debt-to-assets, dividend yield, earnings per share, credit rating, and book-to-market value. Since companies report their own debt-to-asset ratio, dividend yield, credit rating and earnings per share on the survey, we employ these in the analysis below. We match all the Compustat firms listed on the NYSE, AMEX, and NASDAQ and with CRSP share codes of 10 or 11 with our interviewed/or surveyed firms based on  $\pm 20\%$  sales and two-digit SIC. The matched firms represent the universe of this table. The information for the universe of firms is obtained from Compustat: (1) sales, is based on Data12-Sales(net); (2) debt-to-asset, is based on Data9-long-term debt divided by Data6-total assets; (3) dividend yield, is the ratio of Data26 divided by the firm's stock price, Data24; (4) earnings per share is Data58-EPS (basic) excluding extraordinary items; (5) credit rating, is Compustat variable SPDRC; S&P long-term domestic issuer credit ratings per book to market is total stockholders' equity, Data216, divided by size, where size is computed as the product of price, Data24, and common shares outstanding, Data25. For each variable we identify all candidate firms listed on the three major exchanges with valid data on Compustat and share codes 10 and 11 on CRSP as of November 2003, the time at which we conducted the survey and interviewed most of the 20 firms. We then sort all firms with valid data into quintiles and record the corresponding breakpoints. For each quintile we report in panel C (panel B) the percentage of the interviewed (surveyed) firms that are in these five sorts. The reported percentages can then be compared to the benchmark 20%. Note that because a bit more than 60% of firms in the universe have zero dividend yield, the first three quintiles of the universe all have zero dividend yield and therefore what is listed as Quintiles 1, 2, and 3 for dividend yield is actually only one group representing the 60% of the Compustat universe with dividend yield of zero.

Table 2  
Survey responses to the question: Rank the three most important performance measures reported to outsiders

*Panel A: Unconditional averages*

Measure	#1 rankings			#2 rankings			#3 rankings			Total points	Average points
Earnings	159			67			31			642	2.10
Revenues	36			97			75			377	1.24
Cash flows from operations	36			72			93			345	1.13
Free cash flows	30			41			42			214	0.70
Pro-forma earnings	38			10			24			158	0.52
Other	7			13			28			75	0.25
EVA	2			4			5			19	0.06

*Panel B: Conditional averages*

Measure	Average points	Obs.	Size	P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange		
				Small	Large	Low	High	Low	High	Low	High	Low	High	Low	High	NASDAQ/ Amex	NYSE	
Earnings	2.10	305	2.06	2.13	2.38	2.10*	2.14	2.11	2.20	2.01	2.12	2.16	2.14	1.88	2.17	2.06	2.05	2.15
Revenues	1.24	305	1.37	1.10**	1.09	1.37*	1.17	1.39*	1.34	1.11*	0.96	1.27**	1.21	1.46	1.12	1.34*	1.43	1.10***
Cash flows from ops	1.13	305	1.18	1.08	1.08	1.07	1.14	1.09	1.11	1.12	1.23	1.02	1.14	1.05	1.08	1.17	1.21	1.07
Free cash flows	0.70	305	0.64	0.75	0.71	0.75	0.76	0.63	0.67	0.80	0.89	0.62*	0.69	0.73	0.66	0.74	0.62	0.76



Measure	Average	Obs.	CEO age		Ownership		Profitable		Firm age		Guidance		# of analysts			CEO education		
			Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other		
Pro-forma earnings	0.52	305	0.50	0.56	0.40	0.52	0.49	0.56	0.42	0.60	0.44	0.55	0.49	0.73	0.59	0.44	0.45	0.57
Other	0.25	305	0.23	0.28	0.26	0.16	0.24	0.20	0.26	0.26	0.35	0.26	0.27	0.07*	0.29	0.22	0.26	0.24
EVA	0.06	305	0.05	0.08	0.06	0.04	0.07	0.04	0.01	0.09**	0.03	0.11	0.06	0.07	0.08	0.04	0.02	0.09

In panel A, points are assigned as follow: 3 points for a #1 ranking; 2 points for a #2 ranking; 1 point for a #3 ranking. Panel B presents a comparison of the percent of respondents indicating they agree or strongly agree with each statement when the sample is split on various firm characteristics. These characteristics are Size, where large indicates revenues exceeding \$1 billion; P/E, where high indicates a Price/Earnings ratio greater than 17, the median for all public firms surveyed; Sales growth, where high indicates average sales growth over the last 3 years greater than 5%, the median for all public firms surveyed; D/A, where high indicates a debt-to-total assets ratio exceeding 0.25; Credit rating, where high indicates above investment grade; Tech industry, an indicator for whether a firm is in a high technology industry; Exchange, in which NYSE firms are compared to AMEX/Nasdaq listed firms; CEO age, where mature indicates at least 60 years old; Ownership, where public firms are compared to private firms; Profitable, an indicator for whether or not a firm reported a profit last year; Firm age, where old indicates firms more than 36 years old, the median for all public firms surveyed; Guidance, where low refers to those firms that indicated they provide no or little earnings guidance; Number of analysts, where few refers to those firms that indicated that 5 or fewer analysts currently follow their stock; and CEO education, where firms for which the CEO has an MBA are compared to all others. The sample for all comparisons in Panel B is all public firms surveyed, with the exception of the Ownership column, which uses all firms surveyed. \*\*\*, \*\*, and \* denote a statistically significant difference across groups at the 1%, 5%, and 10% levels, respectively.

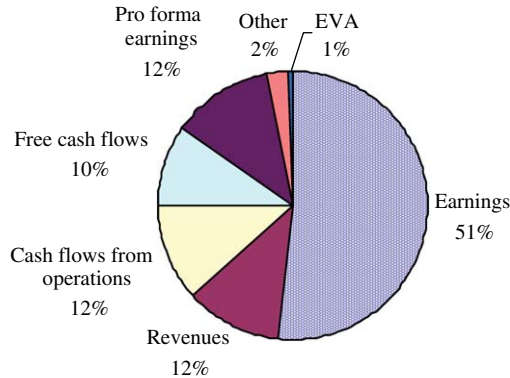


Fig. 2. Responses to the question: “Rank the three most important measures report to outsiders” based on a survey of 401 financial executives.

We also analyze the survey responses conditional on firm characteristics discussed in Section 2.4. We dichotomize many of these characteristics for expositional ease (details provided in the caption of Table 2). For example, we refer to firms with revenues greater than \$1 billion as “large” and firms with a P/E ratio greater than 17 (the median for our sample) as “high P/E firms.”

The conditional analyses, reported in panel B, reveal several insights about the importance of earnings. For distressed firms, especially those reporting negative earnings, we would expect cash flows from operations and other liquidity measures to assume more importance than earnings. Consistent with this conjecture, unprofitable and younger firms rank earnings as relatively less important (see panel B, row 1). However, apart from pro-forma earnings, there is no distinct pattern in terms of indicating the importance of other measures for unprofitable firms. For firms where translation of economic events into earnings is slow, leading indicators such as patents or product pipeline might be viewed as being more important than earnings. However, there does not appear to be any differential importance in earnings for technology firms relative to other industries (row 1).

Cash flows are relatively more important in younger firms and when less guidance is given (panel B, row 3). Note also that private firms place more emphasis on cash flow from operations than public firms (row 3), suggesting perhaps that capital market motivations drive the focus on earnings.<sup>7</sup> Revenues rank higher among firms that report higher sales growth (row 2). Unprofitable firms, firms with young CEOs, and firms with high earnings guidance and analyst coverage emphasize pro-forma earnings (row 5). These patterns are consistent with firms responding to capital market pressure to use pro-forma earnings to make weak GAAP earnings more palatable.

<sup>7</sup>Recall that the numbers in every column are for public firms, except for the column labeled private firms.

The interviews provide information that supplement the survey results just presented. Interviewed CFOs indicate that the GAAP earnings number, especially EPS, is the key metric upon which the market focuses (“earnings are in a class by themselves”).<sup>8</sup> One interviewee observes that this “near-obsession with earnings is a phenomenon that started in the late 80s and climaxed during the Internet boom.” The interviews highlight four explanations for the focus on EPS. First, the world is complex and the number of available financial metrics is enormous. Investors need a simple metric that summarizes corporate performance, that is easy to understand, and is relatively comparable across companies. EPS satisfies these criteria. Second, the EPS metric gets the broadest distribution and coverage by the media. Third, by focusing on one number, the analyst’s task of predicting future value is made somewhat easier. The analyst assimilates all the available information and summarizes it in one number: EPS. Fourth, analysts evaluate a firm’s progress based on whether a company hits consensus EPS. Investment banks can also assess analysts’ performance by evaluating how closely the analyst predicts the firm’s reported EPS.

### 3.2. Earnings benchmarks

Several performance benchmarks have been proposed in the literature (e.g., Burgstahler and Dichev, 1997; DeGeorge et al., 1999), such as previous years’ or seasonally lagged quarterly earnings, loss avoidance, or analysts’ consensus estimates. The survey evidence reported in Table 3 indicates that all four metrics are important: (i) same quarter last year (85.1% agree or strongly agree that this metric is important); (ii) analyst consensus estimate (73.5%); (iii) reporting a profit (65.2%); and (iv) previous quarter EPS (54.2%).<sup>9</sup>

Before administering the survey, we expected the analyst consensus estimate to be the most important earnings benchmark. However, the results in Table 3 indicate that more CFOs agree or strongly agree that same quarter last year’s EPS is important. It is important to note, however, that conditional on having substantial analyst coverage, or providing substantial guidance, the consensus earnings number is statistically indistinguishable from the four quarters lagged number (see panel B).<sup>10</sup> Moreover, in unreported analysis, we find the importance of the consensus

<sup>8</sup>Although the survey question was framed in terms of generic “earnings,” the interviewees overwhelmingly interpret “earnings” to mean EPS. We therefore believe that survey respondents interpreted earnings similarly. Note also that in Table 3 (discussed next) we explicitly focus the survey question on the relative importance of various measures of EPS; however, we do not differentiate between diluted versus basic EPS.

<sup>9</sup>Table 3 reports results that exclude the 7.8% of firms that report that they are not followed by analysts. However, including these firms makes little or no difference. The significance levels are identical. The full sample version of the table is available on request.

<sup>10</sup>Brown and Caylor (2005) argue that negative earnings surprises have become scarcer and that short-term market reactions to missed analyst consensus forecasts are larger than are reactions to a decrease in year-over-year earnings. Importantly, our survey question asks, “how important are the following earnings benchmarks to your company when you report a quarterly earnings number?” Contrary to what is implied by Brown and Caylor, our question does not ask which metric is associated with the largest

Table 3  
Survey responses to the question: How important are the following earnings benchmarks to your company when you report a quarterly earnings number?

*Panel A: Unconditional averages*

Question	% agree or strongly agree	% disagree or strongly disagree	Average rating	H <sub>0</sub> : Average rating = 0
(1) Same quarter last year EPS	85.1	6.9	1.28	***
(2) Analyst consensus forecast of EPS for current quarter	73.5	10.2	0.96	***
(3) Reporting a profit (i.e. EPS > 0)	65.2	12.0	0.84	***
(4) Previous quarter EPS	54.2	20.1	0.49	***

*Panel B: Conditional averages*

Question	% agree or strongly agree		P/E		Sales growth		D/A		Credit rating		Tech industry			Insider		Exchange		
	Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Tech	Low	High	NASDAQ/ Amex	NYSE	
(1)	85.1	276	80.6	89.0*	90.5	92.6	87.2	83.5	84.2	86.8	84.9	87.8	85.4	82.9	83.6	86.2	78.4	89.1**
(2)	73.5	275	66.1	79.9**	70.5	77.7	68.9	77.7	65.0	81.4***	72.1	74.6	72.4	74.3	76.4	70.3	64.7	78.6**
(3)	65.2	276	67.7	62.8	65.7	60.6	65.4	67.8	67.5	61.2	59.3	67.5	64.8	65.7	63.3	67.6	66.7	64.4
(4)	54.2	273	59.8	49.3*	40.4	60.9***	51.9	54.2	58.3	48.0	48.2	55.7	49.1	85.7***	52.8	55.9	62.4	49.4*

Question	% agree or strongly agree		CEO age		Ownership		Profitable		Firm age		Guidance			Number of analysts			CEO education	
	Young	Mature	Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other		
(1)	85.1	276	84.3	89.1	66.7	85.1	68.9	90.2***	78.5	90.8***	87.2	83.8	84.9	85.4	84.7	85.6		
(2)	73.5	275	72.2	76.6	33.3	73.5**	66.7	75.7	71.3	74.5	60.6	80.9	62.2	82.1***	67.3	76.9*		

(3)	65.2	276	61.4	76.6	66.7	65.2	72.1	63.6	66.2	64.5	64.9	65.4	63.0	66.9	54.1	71.8***
(4)	54.2	273	56.0	48.4	44.4	54.2	67.2	50.7**	59.7	47.5**	47.8	56.7	46.6	60.0**	55.2	54.3

Respondents were asked to indicate their level of agreement with each statement on a scale of  $-2$ (strongly disagree) to  $+2$ (strongly agree). This table excludes the 7.8% of firms that report that they are not followed by analysts. Panel A reports summary statistics for the responses from all public firms surveyed. Column (1) presents the percent of respondents indicating they agree or strongly agree with each statement; likewise, column (2) presents the percent of respondents indicating they disagree or strongly disagree with each statement. Column (3) reports the average rating, where higher values correspond to more agreement. Column (4) reports the results of a *t*-test of the null hypothesis that each average response is equal to 0 (neither agree nor disagree). \*\*\*, \*\*, and \* denote rejection at the 1%, 5%, and 10% levels, respectively. Panel B presents a comparison of the percent of respondents indicating they agree or strongly agree with each statement when the sample is split on various firm characteristics. These characteristics are Size, where large indicates revenues exceeding \$1 billion; P/E, where high indicates a Price/earnings ratio greater than 17, the median for all public firms surveyed; Sales growth, where high indicates average sales growth over the last 3 years greater than 5%, the median for all public firms surveyed; D/A, where high indicates a debt-to-total assets ratio exceeding 0.25; Credit rating, where high indicates above investment grade; Tech industry, an indicator for whether a firm is in a high technology industry; Exchange, in which NYSE firms are compared to AMEX/Nasdaq listed firms; CEO age, where mature indicates at least 60 years old; Ownership, where public firms are compared to private firms; Profitable, an indicator for whether or not a firm reported a profit last year; Firm age, where old indicates firms more than 36 years old, the median for all public firms surveyed; Guidance, where low refers to those firms that indicated they provide no or little earnings guidance; Number of analysts, where few refers to those firms that indicated that 5 or fewer analysts currently follow their stock; and CEO education, where firms for which the CEO has an MBA are compared to all others. The sample for all comparisons in Panel B is all public firms surveyed, with the exception of the Ownership column, which uses all firms surveyed. \*\*\*, \*\*, and \* denote a statistically significant difference across groups at the 1%, 5%, and 10% levels, respectively.

number increases with the number of analysts covering the firm. Given that large, high-analyst firms are frequently analyzed in the press and in academic research, this might have affected our prior beliefs.

These results indicate that many executives care about both four quarters lagged earnings and the consensus number; however, the numbers in Table 3 say nothing about the magnitude of missing one of these targets. Later in the paper we present evidence that CFOs believe that there is a severe market reaction to missing the consensus number. In contrast, executives say little about the market reaction to under-performing four quarters lagged earnings. Had we asked which benchmark leads to the largest market reaction, we believe that missing the consensus number would be viewed as evoking at least as large a reaction as missing four quarter lagged earnings, which is consistent with the archival evidence in Brown and Caylor (2005).

The interviews provide some clues as to why four quarters lagged quarterly earnings are important. CFOs note that the first item in a press release is often a comparison of current quarter earnings with four quarters lagged quarterly earnings. The next item mentioned is often the analyst consensus estimate for the quarter. Interviewed CFOs also mention that while analysts' forecasts can be guided by management, last year's quarterly earnings number is a benchmark that is harder, if not impossible, to manage after the 10-Q has been filed with the SEC. Finally, several executives mention that comparison to seasonally lagged earnings numbers provides a measure of earnings momentum and growth, and therefore is a useful gauge of corporate performance.

### 3.3. Why meet earnings benchmarks?

The accounting literature, summarized by Healy and Wahlen (1999), Dechow and Skinner (2000) and Fields et al. (2001), provides several motivations for why managers might exercise accounting discretion to achieve some desirable earnings goal (such as hitting an earnings target): employee bonuses, bond covenants, stakeholder motivations, and stock price motivations. We evaluate the evidence for each of these motivations in turn and also highlight survey evidence on a relatively under-explored hypothesis: career concerns.<sup>11</sup> These results are presented in Table 4 and Fig. 3.

#### 3.3.1. Stock price driven motivation

Research suggests that the market cares about earnings benchmarks. Barth et al. (1999) find that, all else constant, firms that report continuous growth in annual earnings are priced at a premium relative to other firms. Skinner and Sloan (2002)

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(footnote continued)

short-term price reaction, nor does the question ask which receives the most management action, which is the focus of their study. In addition, our results show that the importance of the analyst consensus benchmark increases with the amount of analyst coverage. As discussed in the text, we do not believe that our results are inconsistent with Brown and Caylor's.

<sup>11</sup>For space considerations, we did not ask specific survey questions related to the taxes and regulation motivations for meeting benchmarks, although literature reviews (e.g., Healy and Wahlen, 1999; Fields et al., 2001; Shevlin and Shackelford, 2001) identify these motivations.

Table 4  
Survey responses to the question: Do these statements describe why your company tries to meet earnings benchmarks?

*Panel A: Unconditional averages*

Question	Meeting earnings benchmarks helps...	% agree or strongly agree	% disagree or strongly disagree	Average rating	H <sub>0</sub> : average rating = 0
(1)	us build credibility with the capital market	86.3	3.9	1.17	***
(2)	us maintain or increase our stock price	82.2	3.6	1.06	***
(3)	the external reputation of our management team	77.4	3.6	0.95	***
(4)	us convey our future growth prospects to investors	74.1	5.9	0.90	***
(5)	us maintain or reduce stock price volatility	66.6	6.2	0.74	***
(6)	us assure customers and suppliers that our business is stable	58.5	16.3	0.50	***
(7)	our employees achieve bonuses	40.1	30.3	0.06	
(8)	us achieve or preserve a desired credit rating	39.5	28.8	0.07	
(9)	us avoid violating debt-covenants	26.5	41.5	-0.28	***

*Panel B: Conditional averages*

Question	% agree or strongly agree	P/E		Sales growth		D/A		Credit Rating		Tech industry		Insider		Exchange				
		Small	Large	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/ Amex	NYSE			
(1)	86.3	306	84.5	88.7	86.2	82.5	84.2	87.3	82.2	88.5	83.7	86.6	85.2	95.0**	87.5	84.7	81.1	89.9**
(2)	82.2	304	78.8	85.4	80.9	80.0	79.5	83.2	75.0	85.6**	80.4	84.1	82.0	82.5	82.2	82.2	76.8	86.0**
(3)	77.4	305	77.0	78.0	75.5	75.3	74.0	78.6	72.3	79.0	78.3	74.0	75.0	87.5**	72.6	80.5	78.6	76.5
(4)	74.1	305	71.6	76.0	68.2	85.6***	71.2	77.0	69.2	77.5	65.2	78.0**	72.7	77.5	73.3	74.4	69.0	77.7*
(5)	66.6	305	61.5	70.7*	61.8	68.0	67.8	64.3	66.2	64.5	60.9	67.7	65.6	72.5	66.7	65.9	61.1	70.4*
(6)	58.5	306	63.8	52.7*	52.7	56.7	59.6	57.1	62.3	52.2*	58.7	56.7	54.3	82.9***	51.9	63.4**	63.8	54.7
(7)	40.1	307	40.3	39.7	40.0	41.2	38.1	40.5	41.5	40.3	31.5	40.6	40.1	41.5	32.4	47.0***	43.3	37.8
(8)	39.5	306	27.0	51.7***	34.5	39.2	37.4	40.5	30.0	43.9**	33.7	48.4**	42.8	20.0***	40.4	38.4	25.4	49.4***
(9)	26.5	306	29.1	23.8	25.5	21.6	27.2	23.8	21.5	30.9*	23.9	22.7	26.8	22.5	21.3	30.5*	23.8	28.3

Table 4 (continued)

Question	% agree or strongly agree	Obs. CEO age		Ownership		Profitable		Firm age		Guidance		Number of analysts		CEO education	
		Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other
(1)	86.3	87.2	82.4	78.3	86.3	92.0	84.4*	86.0	86.5	75.9	92.0***	81.7	89.9**	84.3	87.4
(2)	82.2	80.8	88.1	39.1	82.2***	84.9	80.8	83.1	79.7	74.1	86.6***	78.9	84.7	79.6	83.6
(3)	77.4	76.9	79.4	71.7	77.4	80.8	75.6	78.5	74.1	71.7	80.7*	74.1	79.6	77.6	77.0
(4)	74.1	75.6	67.6	56.5	74.1**	64.4	77.3**	74.3	74.1	69.0	77.5	69.9	78.3*	68.2	77.0
(5)	66.6	66.2	67.6	23.9	66.6***	68.5	65.8	62.5	70.1	57.5	72.2***	59.4	72.6**	61.7	69.6
(6)	58.5	57.0	63.2	67.4	58.5	71.6	54.7***	64.6	53.7*	56.6	58.8	61.5	55.4	55.1	59.9
(7)	40.1	41.1	38.2	63.0	40.1***	36.0	41.3	41.7	37.8	34.5	43.1	39.2	41.8	44.4	38.0
(8)	39.5	38.7	42.6	69.6	39.5***	41.9	38.2	31.9	45.9**	31.9	44.1**	33.6	44.9**	49.1	35.1**
(9)	26.5	25.5	27.9	69.6	26.5***	36.5	22.7**	24.3	29.1	30.1	25.0	35.7	19.0***	32.4	23.6

See Table 3 legend for table and variable descriptions.



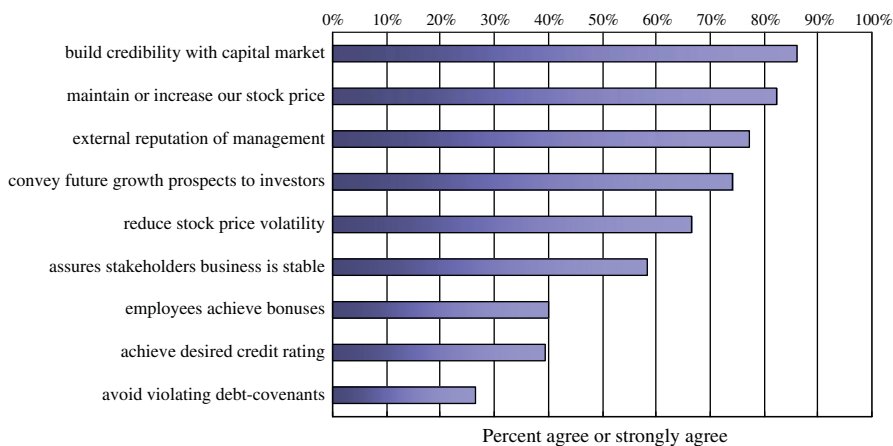


Fig. 3. Responses to the question: “Meeting earnings benchmarks helps...” based on a survey of 401 financial executives.

show that growth firms that fail to meet earnings benchmarks (such as analyst expectations) suffer large negative price reactions on the earnings announcement date. [Bartov et al. \(2002\)](#) find that firms that meet or beat analyst expectations often report superior future operating performance. The survey evidence is strongly consistent with the importance of stock price motivations to meet or beat earnings benchmarks. An overwhelming 86.3% of the survey participants believe that meeting benchmarks builds credibility with the capital market ([Table 4](#), row 1). More than 80% agree that meeting benchmarks helps maintain or increase the firm’s stock price (row 2). Consistent with these results, managers believe that meeting benchmarks conveys future growth prospects to investors (row 4). In sum, the dominant reasons to meet or beat earnings benchmarks relate to stock prices.

### 3.3.2. Stakeholder motivations

[Bowen et al. \(1995\)](#) and [Burgstahler and Dichev \(1997\)](#) state that by managing earnings, firms are able to enhance their reputation with stakeholders, such as customers, suppliers, and creditors, and hence get better terms of trade. A statistically significant majority of the respondents agree with the stakeholder story ([Table 4](#), row 6). Conditional analyses show that the stakeholder motivation is especially important for firms that are small, in the technology industry, dominated by insiders, young, and not profitable. Perhaps suppliers and customers need more reassurances about the firm’s future in such companies. An interviewed CFO, in an industry in which confidence of retail customers in the product market is a key consideration, said that concerns about the stakeholder hypothesis is a significant determinant of the accounting and disclosure decisions.

### 3.3.3. Employee bonuses

Several papers, beginning with [Healy \(1985\)](#), argue that managers exercise accounting discretion to maximize the present value of their bonus compensation

(see Fields et al., 2001 for references). For example, Matsunaga and Park (2001) find that failure to meet analysts' consensus estimates results in pay cuts for the CEO. The survey evidence does not provide much support for the employee bonus motivation: There is no statistical difference between respondents who agree and disagree with this motivation (see row 7 of Table 4).

Consistent with the survey evidence, interviewed CFOs view the compensation motivation as a second-order factor, at best, for exercising accounting discretion. They tell us that companies often have internal earnings targets (for the purpose of determining whether the executive earns a bonus) that exceed the external consensus target.<sup>12</sup> Hence, meeting the external earnings target does not guarantee a bonus payout. Furthermore, several interviewed CFOs indicate that bonuses are a function of an internal "stretch goal," which exceeds the internal "budget EPS," which in turn exceeds the analyst consensus estimates. Finally, many executives indicate that bonus payout is simply not that important relative to salary and stock compensation (for themselves and for lower-level employees). Of course, it is plausible that executives are more willing to admit to a stock price motivation, rather than a bonus motivation, for exercising accounting discretion. Note, however, that evidence presented below in Sections 3.3.4 and 6.1.5 suggests that managers' career concerns and external reputation are important drivers of financial reporting practices. Therefore, agency considerations may play an important role in financial reporting decisions, even if bonus payments do not. We turn to career concerns next.

#### 3.3.4. Career concerns

More than three-fourths of the survey respondents agree or strongly agree that a manager's concern about her external reputation helps explain the desire to hit the earnings benchmark (Table 4, row 3). The interviews confirm that the desire to hit the earnings target appears to be driven less by short-run compensation motivations than by career concerns. Most CFOs feel that their inability to hit the earnings target is seen by the executive labor market as a "managerial failure." Repeatedly failing to meet earnings benchmarks can inhibit the upward or intra-industry mobility of the CFO or CEO because the manager is seen either as an incompetent executive or a poor forecaster. According to one executive, "I miss the target, I'm out of a job." The career concern motivation for managing earnings is beginning to attract interest among researchers (e.g., Farrell and Whidbee, 2003; Feng, 2004; Francis et al., 2004).

#### 3.3.5. Bond covenants

Some research proposes that earnings might be managed to reduce the probability of violating a covenant, and hence the expected cost of debt (Watts and Zimmerman, 1990). For example, Burgstahler (1997) suggests that loss avoidance reduces the cost of debt. The survey evidence does not support the bond covenant hypothesis for meeting earnings benchmarks (Table 4, row 9). This finding is consistent with what

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<sup>12</sup>External targets are lower than internal targets because firms prefer that external targets are not a stretch to attain.

we learn from our interviews, as well as with the Dechow and Skinner (2000) review of the earnings management literature. While unconditional support for the bond covenant motivation is low, we find that firms that are perhaps closer to violating covenants (highly leveraged, unprofitable) consider bond covenants to be relatively more important (row 9). Finally, private firms strongly support the covenant hypothesis. Thus, the bond covenants hypothesis seems to be important primarily where there are binding constraints.

### 3.4. Consequences of failure to meet earnings benchmarks

To further understand the desire to meet earnings benchmarks, we explicitly ask about the consequences of failing to meet such benchmarks. Table 5 and Fig. 4 summarize the results. The top two consequences of a failure to meet earnings benchmarks are an increase in the uncertainty about future prospects (80.7%) and a perception among outsiders that there are deep, previously unknown problems at the firm (60%). The importance of these concerns increases with the degree of guidance.

To provide some context to these statistics, we turn to interview evidence. Several CFOs argue that, “you have to start with the premise that every company manages earnings.” To be clear, these executives are not talking about violating GAAP or committing fraud. They are talking about “running the business” in a manner to produce smooth, attainable earnings every year (unless, of course, they are in a negative tailspin, in which case efforts to survive financial distress dominate reporting concerns).<sup>13</sup> This entails maneuvers with discretionary spending, changing the timing and perhaps the scale of investment projects, and changing accounting assumptions. One CFO characterizes such decisions to meet earnings targets as the “screw-driver” effect: “you turn the screws just a little bit so that it fits.” The common belief is that a well-run and stable firm should be able to “produce the dollars” necessary to hit the earnings target, even in a year that is otherwise somewhat down. Because the market expects firms to be able to hit or slightly exceed earnings targets, and in fact firms on average do just this (Brown and Caylor, 2005), problems can arise when a firm does not deliver earnings. The market might assume that not delivering earnings means that there are potentially serious problems at the firm (because the firm apparently is so near the edge that it can not produce the dollars to hit earnings, and hence must have already used up its cushion). As one CFO put it, “if you see one cockroach, you immediately assume that there are hundreds behind the walls, even though you may have no proof that this is the case.” Corporations therefore have great incentive to avoid the “cockroach” of missing an earnings benchmark.

If management is unable to meet an earnings benchmark, then the market concludes that the firm probably has poor future prospects and, hence, depresses the firm’s stock price. However, CFOs point out that the market’s reception is tempered if (i) you miss the quarterly consensus estimate but you can explain that the miss is driven by accounting accruals, not real cash flows (where “real” means, for example,

<sup>13</sup>Parfet (2000), a CFO, makes a similar point in defense of earnings management.

Table 5  
Survey responses to the question: Do these statements describe why your company tries to avoid missing an earnings benchmark?

*Panel A: Unconditional averages*

Question	% agree or strongly agree	% disagree or strongly disagree	Average rating	H <sub>0</sub> : average rating = 0
(1) It creates uncertainty about our future prospects	80.7	7.5	0.97	***
(2) Outsiders might think there are previously unknown problems at our firm	60.0	18.7	0.49	***
(3) We have to spend a lot of time explaining why we missed rather than focus on future prospects	58.2	18.6	0.48	***
(4) It leads to increased scrutiny of all aspects of our earnings releases	37.6	28.4	0.07	
(5) Outsiders might think that our firm lacks the flexibility to meet the benchmark	28.1	36.3	-0.14	**
(6) It increases the possibility of lawsuits	25.7	37.8	-0.20	***

*Panel B: Conditional averages*

Question	% agree or strongly agree		P/E		Size		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange	
	Small	Large	Low	High	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/ Amex	NYSE
(1)	80.7	306	78.4	82.8	73.4	85.6**	76.7	84.9*	78.3	81.3	73.6	83.6*	79.3	87.8	76.3	83.5	77.2	83.2
(2)	60.0	305	58.5	62.3	55.5	53.6	56.8	61.1	56.2	59.4	58.7	59.4	58.2	72.5*	54.4	64.4*	56.8	62.2

(3)	58.2	306	60.4	56.7	60.6	51.5	55.1	59.2	53.8	59.4	66.3	54.3*	56.6	70.7*	48.5	65.6***	59.8	57.0
(4)	37.6	306	33.8	41.1	39.1	35.1	38.8	36.5	35.4	38.8	37.0	41.4	36.2	45.0	33.1	40.2	31.0	42.2**
(5)	28.1	306	22.3	32.5**	29.1	32.0	22.4	34.9**	27.7	28.1	21.7	33.6**	26.8	35.0	22.1	32.9**	23.8	31.1
(6)	25.7	307	30.2	21.2*	20.9	27.8	21.8	30.2	28.5	23.7	32.6	17.2***	21.8	48.8***	22.1	28.0	32.3	21.1**
Question	% agree or strongly agree	Obs.	CEO age		Ownership		Profitable		Firm age		Guidance		Number of analysts		CEO education			
			Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other		
(1)	80.7	306	80.4	83.8	58.7	80.7***	81.3	80.4	81.8	78.4	69.9	87.2***	76.9	84.1	78.7	81.7		
(2)	60.0	305	62.1	52.9	63.0	60.0	65.8	56.9	63.9	53.7*	52.7	64.9**	55.6	63.9	66.7	55.0**		
(3)	58.2	306	57.0	61.8	58.7	58.2	58.7	57.1	60.8	54.7	55.8	59.9	60.8	56.7	54.6	60.2		
(4)	37.6	306	36.2	42.6	37.0	37.6	39.2	36.4	35.4	39.2	29.2	42.6**	33.6	41.8	31.5	41.4*		
(5)	28.1	306	26.8	32.4	34.8	28.1	20.3	30.7*	28.5	27.0	19.5	33.5***	23.8	32.3*	24.1	29.8		
(6)	25.7	307	25.4	26.5	4.3	25.7***	36.0	22.7**	31.3	20.9**	23.9	26.1	27.3	24.1	20.4	28.1		

See Table 3 legend for table and variable descriptions.

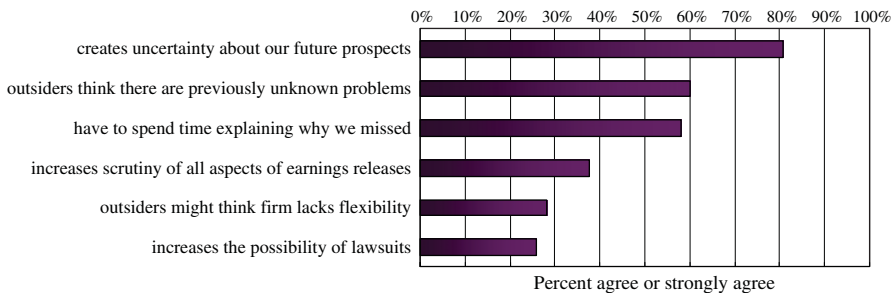


Fig. 4. Responses to the question: “Failing to meet benchmarks...” based on a survey of 401 financial executives.

a drop in units sold); (ii) you miss the quarterly consensus estimate but you can confirm guidance for the annual EPS number; or (iii) the firm’s non-financial leading indicators suggest good performance, thereby implying good future earnings. However, if non-financial leading indicators perform poorly as well, then the market is likely to punish the stock.

The other statistically significant factor motivating managers to avoid missing earnings benchmarks relates to the time spent in explaining, especially in conference calls to analysts, why the firm missed the target (Table 5, row 3). The interviewed CFOs say that if they meet the earnings target, they can devote the conference call to the positive aspects of the firm’s future prospects. In contrast, if the company fails to meet the guided number, the tone of the conference call becomes negative. The focus shifts to talking about why the company was unable to meet the consensus estimate. CFOs say that analysts begin to doubt the credibility of the assumptions underlying the current earnings number and the forecast of future earnings. Such a negative environment can cause the stock price to fall and even result in a debt-rating downgrade. In general, interviewed CFOs feel that the market hates unpleasant surprises, and surprised investors or analysts become defensive. Actions taken to meet or beat earnings benchmarks reduce the probability of such an unpleasant surprise. We focus on these actions in the next section.

#### 4. Actions taken to meet earnings benchmarks

##### 4.1. Mix between accounting and real actions

The literature has long recognized that managers can take accounting actions or real economic actions to meet earnings benchmarks. Table 6 and Fig. 5 summarize our analysis comparing these two types of actions. We find strong evidence that managers take real economic actions to maintain accounting appearances. In particular, 80% of survey participants report that they would decrease discretionary

Table 6  
 Survey responses to the question: Hypothetical scenario: Near the end of the quarter, it looks like your company might come in below the desired earnings target. Within what is permitted by GAAP, which of the following choices might your company make?

*Panel A: Unconditional averages*

Question	% agree or strongly agree	% disagree or strongly disagree	Average rating	H <sub>0</sub> : average rating = 0
(1) Decrease discretionary spending (e.g. R&D, advertising, maintenance, etc.)	79.9	11.2	1.00	***
(2) Delay starting a new project even if this entails a small sacrifice in value	55.3	23.5	0.33	***
(3) Book revenues now rather than next quarter (if justified in either quarter)	40.4	38.1	-0.12	
(4) Provide incentives for customers to buy more product this quarter	39.1	40.8	-0.11	***
(5) Draw down on reserves previously set aside	27.9	50.5	-0.45	***
(6) Postpone taking an accounting charge	21.3	62.7	-0.72	***
(7) Sell investments or assets to recognize gains this quarter	20.2	61.3	-0.77	***
(8) Repurchase common shares	12.4	68.5	-1.02	***
(9) Alter accounting assumptions (e.g. allowances, pensions, etc.)	7.9	78.2	-1.22	***

*Panel B: Conditional averages*

Question	% agree or strongly agree	Obs. Size		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange		
		Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High		NASDAQ/ NYSE Amex	
(1)	79.9	304	80.4	80.5	75.0	80.2	82.3	77.2	82.3	75.0	73.6	78.3	78.8	90.0**	78.5	80.2	81.1	79.1
(2)	55.3	302	54.8	57.0	44.6	57.3*	57.8	54.0	55.4	54.0	65.9	44.5***	52.8	71.8**	51.5	58.0	54.0	56.3
(3)	40.4	302	43.5	37.8	34.8	34.7	43.2	36.2	37.2	41.4	37.4	39.1	39.0	53.8*	37.3	41.4	39.7	40.9
(4)	39.1	304	44.6	33.6**	27.7	38.5*	38.1	41.7	40.0	40.0	38.5	30.2	36.1	62.5***	32.6	43.2*	45.7	34.5**
(5)	27.9	301	28.6	27.9	27.3	25.0	25.5	29.1	25.4	29.7	26.7	27.3	28.9	28.2	24.1	30.2	24.6	30.3
(6)	21.3	300	21.1	21.9	23.4	16.0	21.4	20.6	15.5	23.9*	25.6	19.7	22.6	17.9	21.1	20.5	19.8	22.4

Table 6 (continued)

<i>Panel B: Conditional averages</i>																	
Question	% agree or strongly agree	Obs. Size		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange	
		Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/Amex	NYSE
(7)	20.2	20.4	20.3	16.2	22.9	19.7	20.6	19.2	20.1	13.2	23.4**	19.7	28.2	20.9	18.5	18.3	21.6
(8)	12.4	298	11.6	13.8	16.2	12.0	9.6	17.9**	15.9	9.4	11.0	12.9	13.5	7.7	7.6	16.1**	12.0
(9)	7.9	303	8.8	7.4	10.7	4.2*	9.5	6.3	6.2	10.0	11.0	7.0	7.5	12.8	5.9	8.6	6.8

Question	% agree or strongly agree	Obs. CEO age			Ownership			Profitable		Firm age			Guidance			Number of analysts			CEO education		
		Young	Mature	Public	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other					
(1)	79.9	304	81.8	74.3	86.4	79.9	82.9	78.8	79.9	78.7	75.9	82.8	77.5	82.1	82.9	77.9					
(2)	55.3	302	58.5	45.7*	59.1	55.3	70.7	50.7***	56.9	55.0	50.0	58.9	55.3	55.8	56.2	55.9					
(3)	40.4	302	42.4	34.3	36.4	40.4	49.3	37.8**	40.6	39.3	35.7	43.2	45.1	35.5*	39.4	41.3					
(4)	39.1	304	40.7	32.9	43.2	39.1	56.6	33.2***	45.8	31.3***	34.8	41.9	40.8	37.2	36.2	40.0					
(5)	27.9	301	27.6	28.6	52.3	27.9***	32.0	26.8	27.8	27.7	26.8	28.3	28.2	27.3	23.8	29.9					
(6)	21.3	300	21.1	21.4	31.8	21.3	24.0	20.6	21.7	20.3	20.5	21.9	22.7	20.1	15.5	25.0**					
(7)	20.2	302	18.8	25.7	22.7	20.2	21.3	20.0	20.3	19.3	17.9	21.6	14.8	25.2**	24.0	18.0					
(8)	12.4	298	13.2	10.4	4.7	12.4**	6.7	14.5**	14.0	11.0	10.0	14.2	9.9	14.5	12.5	12.4					
(9)	7.9	303	7.4	10.0	13.6	7.9	13.3	6.2*	6.3	9.3	6.3	9.1	9.9	5.8	4.8	9.5					

See Table 3 legend for table and variable descriptions.



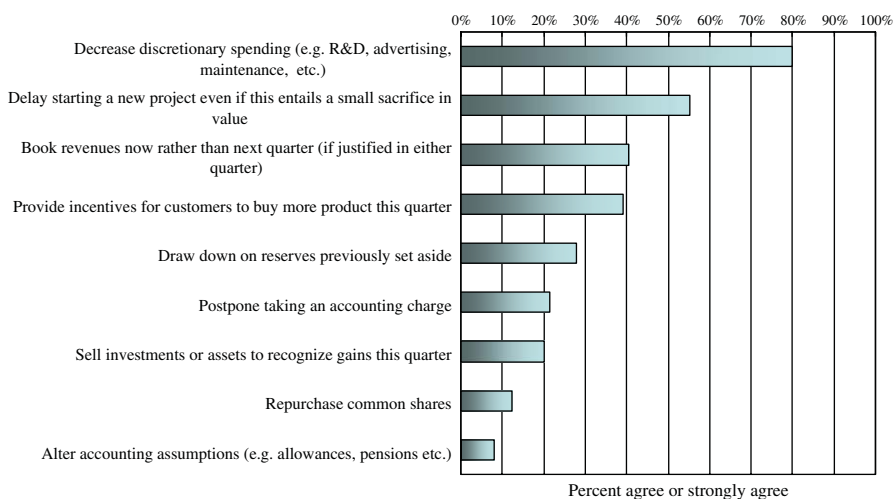


Fig. 5. Responses to the question: “Near the end of the quarter, it looks like your company might come in below the desired earnings target. Within what is permitted by GAAP, which of the following choices might your company make?” based on a survey of 401 financial executives.

spending on R&D, advertising, and maintenance (Table 6, row 1) to meet an earnings target.<sup>14</sup> More than half (55.3%) state that they would delay starting a new project to meet an earnings target, even if such a delay entailed a small sacrifice in value (row 2). This evidence is dramatic for two reasons. First, managers appear to be willing to burn “real” cash flows for the sake of reporting desired accounting numbers. As one executive put it, “there is a constant tension between the short-term and long-term” objectives of the firm. Second, getting managers to admit to value-decreasing actions in a survey suggests, perhaps, that our evidence represents only the lower bound for such behavior.

Real actions to manage earnings have not received as much attention in the archival literature relative to the attention given to accounting attempts to manage earnings. A few papers (e.g., Dechow and Sloan, 1991; Bartov, 1993; Bushee, 1998) present evidence of asset sales or R&D cuts to meet earnings targets. Mittelstaedt et al. (1995) find that a significant number of firms cut health care benefits after the passage of SFAS 106 even though the accounting standard only requires an accounting charge of health care costs to reported income without any direct cash flow effects. Penman and Zhang (2002) find that cutting investments can

<sup>14</sup>The unconditional average for row (1) is 79.9% and might appear to be inconsistent with the conditional averages of 80.4% and 80.5% reported under small and large size firms in panel B of row (1). This is because the sample size for the unconditional average is not the same as that for the conditional average. Of the 304 observations used to compute the unconditional average (rating of 79.9%), we have 148 responses in the small group (rating of 80.4%), 149 in the large group (rating of 80.5%) and seven observations that are missing size (rating of 57%).

boost reported earnings, in the presence of conservative accounting. Roychowdhury (2003) argues that firms overproduce and give sales discounts to meet earnings targets. One advantage that our survey has over the archival approach is that we do not have as much concern that omitted variable bias or multiple interpretations of the same coefficient affect our inference (e.g., an R&D cut in an archival study might indicate reduced investment opportunities, not earnings management).<sup>15</sup>

Taking accounting actions to meet earnings benchmarks gets notably little support in Table 6. Survey respondents do not agree that they use the following accrual-related maneuvers to manage earnings targets: drawing down on reserves previously set aside (row 5), postponing an accounting charge (row 6), or altering accounting assumptions in pension calculations (row 9). We find that the average rating for real actions (i.e., rows 1,2,4,7 and 8 in Table 6) is statistically greater than the average rating for accounting actions (rows 3,5,6, and 9 in Table 6) ( $t$ -statistic = 9.97), implying that managers choose real actions over accounting actions to meet earnings benchmarks. This evidence is somewhat disconcerting, considering the large volume of literature devoted to documenting earnings management via accruals and discretionary accruals (Teoh et al., 1998a b; Sloan, 1996; Nelson et al., 2002; and see Healy and Wahlen, 1999; Dechow and Skinner, 2000; Beneish, 2001; Fields et al., 2001 for surveys).<sup>16</sup>

We acknowledge that the aftermath of accounting scandals at Enron and WorldCom and the certification requirements imposed by the Sarbanes–Oxley Act may have changed managers' preferences for the mix between taking accounting versus real actions to manage earnings. Alternatively, it could simply be that managers are more willing to admit to taking real decisions than to accounting decisions.<sup>17</sup> An interviewed CFO offers an insight into the choice between real and accounting-based earnings management in the current environment: While auditors can second-guess the firm's accounting policies, they cannot readily challenge real economic actions to meet earnings targets that are taken in the ordinary course of business. Another executive emphasizes that firms now go out of their way to assure stakeholders that there is no accounting based earnings management in their books. He goes on to express a corporate fear that even an appropriate accounting choice runs the risk of an overzealous regulator concluding ex post that accounting treatment was driven by an attempt to manage earnings.

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<sup>15</sup>Our finding that firms sacrifice value to increase earnings is consistent with (i) Erickson et al. (2004), who find that firms pay extra taxes to boost reported earnings; and (ii) Bhojraj and Libby (2004), who find in an experiment that just before issuing stock, managers choose projects that they believe will maximize short-term earnings (and price) as opposed to total cash flows.

<sup>16</sup>Row 3 of Table 6 indicates that revenue recognition is the most common accounting technique used (or admitted to) by our survey respondents. This finding is consistent with evidence on type of accounting manipulations uncovered from SEC enforcement actions (Dechow et al., 1996).

<sup>17</sup>In a survey conducted in 1990, Bruns and Merchant (1990) report that managers view managing earnings via operating decisions as more ethical than employing accounting procedures.

#### 4.2. Value sacrifice to meet earnings benchmark

To gauge the degree to which managers are willing to alter investment decisions to meet earnings targets, we ask the following hypothetical question:

*Hypothetical scenario:* Your company's cost of capital is 12%. Near the end of the quarter, a new opportunity arises that offers a 16% internal rate of return and the same risk as the firm. The analyst consensus EPS estimate is \$1.90. What is the probability that your company will pursue this project in each of the following scenarios?

Actual EPS if you <u>do not</u> pursue the project	Actual EPS if you <u>pursue</u> the project	The probability that the project will be pursued in this scenario is ... (check one box per row)					
		0%	20%	40%	60%	80%	100%
\$2.00	\$1.90						
\$1.90	\$1.80						
\$1.80	\$1.70						
\$1.40	\$1.30						

Several facts about the question are worth noting: (i) the project has positive NPV because the internal rate of return exceeds the cost of capital by 4%; (ii) undertaking the project in the first earnings scenario enables the firm to exactly meet the consensus estimate; (iii) in the second scenario, the firm misses the consensus estimate by undertaking the positive NPV project; and (iv) in the third and fourth scenarios, the company is not projected to meet the consensus estimate and adopting the project will take the firm further below the consensus.

The survey responses are reported in Table 7. Although adopting the positive NPV project will not cause the firm to miss the consensus estimate, the average probability of accepting the project is only 80%. A priori, one might expect all firms to take the project under the first scenario—but one-fifth of the respondents would not take the earnings hit, perhaps because rejecting the project means they would beat rather than merely meet consensus. Alternatively, managers might hesitate to take the project-related earnings hit to hedge against the possibility that an unforeseen event before the end of the quarter may consume earnings. A third possibility is that these managers might have a hurdle rate that is higher than the 16% internal rate of return; however, a higher hurdle rate would not explain the fall-off in project acceptance described next.

Only 59% of the respondents would take the project in scenario two (see Fig. 6). Thus, many managers would reject a positive NPV project in order to meet the analyst consensus estimate! In scenario four, when EPS without taking the project at \$1.40 is a full 50 cents below consensus, about 52% of the managers would take the

Table 7

Survey responses to the question: Hypothetical scenario: Your company's cost of capital is 12%. Near the end of the quarter, a new opportunity arises that offers a 16% internal rate of return and the same risk as the firm. The analyst consensus EPS estimate is \$1.90. What is the probability that your company will pursue this project in each of the following scenarios?

*Panel A: Unconditional averages*

EPS if you do not pursue	EPS if you pursue	Probability that the project will be pursued: (percent of respondents indicating)				Average probability of pursuing project (%)		
		0%	20%	40%	80%		100%	
\$2.00	\$1.90	4	4	5	10	32	45	80
\$1.90	\$1.80	10	14	10	20	28	18	59
\$1.80	\$1.70	14	12	13	21	22	17	55
\$1.40	\$1.30	20	13	12	15	20	19	52

*Panel B: Conditional averages*

EPS if you do not pursue	EPS if you pursue (%)	Avg Prob.	Obs.	Size	P/E		Sales growth		D/A		Credit rating		Tech industry		Insider	Exchange			
					Small	Large	Low	High	Low	High	Low	High	Low	High			Other	Tech	Low
\$2.00	\$1.90	80	284	78.4	81.8	79.5	79.1	80.0	78.2	78.4	81.0	81.4	78.0	80.8	74.2	80.4	79.0	77.5	80.9
\$1.90	\$1.80	59	284	59.2	60.1	63.1	55.9	60.6	56.4	57.4	61.4	58.1	61.3	61.2	50.6*	61.6	57.8	55.7	61.5
\$1.80	\$1.70	55	284	55.1	56.2	56.7	52.8	55.6	53.4	54.0	57.5	58.1	56.1	57.9	45.0**	58.0	53.6	52.9	56.9
\$1.40	\$1.30	52	284	50.4	53.7	51.8	50.2	52.1	50.7	52.5	51.7	56.9	51.3	53.8	45.6	54.2	50.4	51.7	51.8

EPS if you do not pursue	EPS if you pursue (%)	Avg Prob.	Obs.	CEO age	Ownership		Profitable		Firm age		Guidance		Number of analysts		CEO education		
					Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA
\$2.00	\$1.90	80	284	79.5	79.5	79.1	79.6	79.0	79.7	79.3	79.4	81.1	78.7	80.1	78.9	78.9	79.8
\$1.90	\$1.80	59	284	58.4	61.3	62.8	59.2	56.9	59.8	57.7	60.0	64.3	56.0**	60.2	58.3	58.5	59.0
\$1.80	\$1.70	55	284	54.3	57.8	52.6	55.3	56.0	54.9	53.1	56.6	60.9	52.0**	56.4	54.4	52.9	55.8
\$1.40	\$1.30	52	284	51.0	52.7	46.0	51.7	53.7	50.8	50.4	52.9	54.5	50.5	52.8	51.1	47.9	52.9

See Table 3 legend for table and variable descriptions.

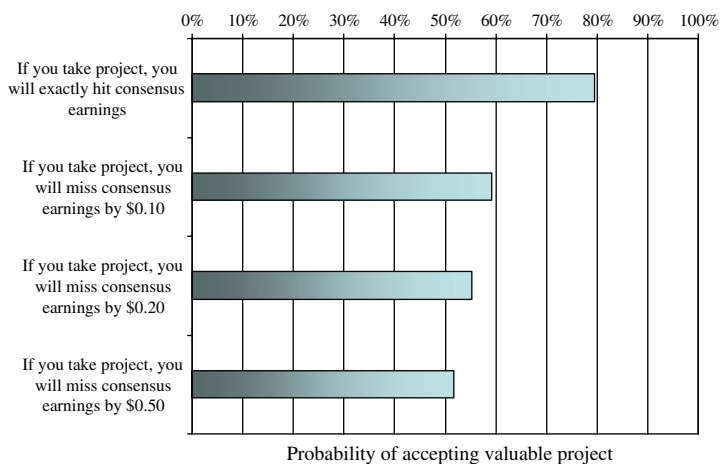


Fig. 6. Responses to the statement and question: “Your company’s cost of capital is 12%. Near the end of the quarter, a new opportunity arises that offers a 16% internal rate of return and the same risk as the firm. What is the probability that your company will pursue this project in each of the following scenarios?” based on a survey of 401 financial executives.

project and its associated 10 cent earnings hit. The fourth scenario result is surprising to us because we expected more managers to accept the project, given that they are not on track to hit the consensus estimate anyway. Nonetheless, the above data strongly suggest that managers are willing to alter investment decisions to report certain earnings benchmarks. We statistically confirm this hypothesis by estimating an ordinal logit model that tests the null hypothesis that the average probability of respondents who would take the project under \$2.00/\$1.90 is different from each of the other three alternatives. These results are consistent with managers bypassing positive NPV projects to meet the analyst consensus estimate.<sup>18</sup>

Conditional analyses, presented in panel B, reveal cross-sectional variation in the firm’s probability of project adoption along only two major dimensions. Technology firms and firms that provide earnings guidance are relatively more likely to avoid taking projects that would cause them to miss earnings targets. In untabulated conditional analysis, we examine which firms say that they would deviate from weak negative monotonicity; that is, which firms become *more* likely to choose the project as they move down the four earnings scenarios. This analysis indicates that only 19% of the respondents say that they would violate negative monotonicity at all, and only 12% say they would be more willing to undertake the project in scenario 4 than in scenario 3. Large firms that give guidance and have many analysts, as well as firms

<sup>18</sup>The Likelihood-Ratio statistic for the null hypothesis that the probability of accepting the project under the \$2.00/\$1.90 scenario equals the probability under the \$1.90/\$1.80 scenario is 192.93, under the \$1.80/\$1.70 scenario is 168.79, and under the \$1.40/\$1.30 scenario is 155.06. The 5% critical value is 3.84. Thus, the null hypothesis that the probabilities of accepting the project under the \$2.00/\$1.90 scenario equals the probability for the other three cases is strongly rejected.

with CEOs who do not have MBAs, are most likely to violate negative monotonicity (i.e., have a probability of undertaking the project that increases as the expected earnings shortfall increases).

#### 4.3. Interview evidence on meeting earnings benchmarks

Eighteen of the 20 interviewed CFOs acknowledge that they face a trade-off between delivering (short-run) earnings and making long-run optimal decisions. The parameters of this trade-off are conditional on the firm's progress towards hitting consensus earnings. If the company is doing well, it is inclined to make long-run decisions that might reduce EPS (because they will make the benchmark EPS in any case). If the company has to stretch to attain its earnings target, they are more inclined to delay the start of a long-run project (or take some of the specific actions described in the next paragraph) because starting the project now would cause them to miss the earnings target. Along these lines, several CFOs candidly acknowledge that they have made real economic sacrifices to hit an earnings target. One CFO indicates that several investment banks promote products whose sole objective is to create accounting income with zero or sometimes even negative cash flow consequences.

Real actions that firms can take to avoid missing earnings targets include: (i) postpone or eliminate hiring, R&D, advertising, or even investments (to avoid depreciation charges to earnings or other start-up charges); (ii) manage other expenses by cutting the travel budget, delaying or canceling software spending, or deferring maintenance spending; (iii) sell bond investments that are not marked-to-market and, therefore, permit the firm to book gains; (iv) securitize assets; (v) manage the funding of pension plans (see [Rauh, 2004](#) for evidence of pervasive effects of pension funding on investment decisions); (vi) convince customers to increase their order quantity towards the end of the quarter; and (vii) announce an increase in product prices in the first quarter of the coming year to stimulate demand in the fourth quarter, or cut prices in the fourth quarter and hope to make that up in higher volume.

The opinion of 15 of 20 interviewed executives is that every company would/should take actions such as these to deliver earnings, as long as the actions are within GAAP and the real sacrifices are not too large. Appendix A contains detailed examples of decisions that sacrifice long-term value to meet short-term reporting objectives. These examples do not cause the firm to violate GAAP or commit fraud.

Consistent with the survey evidence, the interviews suggest that executives currently emphasize real economic actions rather than exercise accounting discretion to hit earnings benchmarks.<sup>19</sup> The interviews do uncover some evidence of

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<sup>19</sup>One CFO states that while it is preferable to manage earnings via real actions rather than accounting choices, it is also more difficult. That is, a CFO must understand the operations up and down the organization to effectively manage earnings via real actions. This CFO refers to earnings management via accounting actions as "laziness on the part of the CFO" because much more effort is necessary to understand all aspects of the business in order to manage earnings via real actions.

accounting choices made to enhance the odds of hitting an earnings target, though the CFOs insist that these actions are well within the purview of GAAP (though they acknowledge that this does not always appear to be the case at other firms). One CFO argued that there is nothing wrong with exercising legal accounting discretion (i.e., technical compliance with GAAP) to project his/her company in a better light. Often-quoted examples of such accounting discretion include (i) booking reserves by accelerating expense recognition into this quarter (thereby reducing expenses next quarter) and drawing on such reserves to meet an earnings shortfall in the future; (ii) accelerating revenue recognition to book a deal this quarter rather than next; (iii) changing the assumptions underlying booking of litigation reserves; and (iv) changing the assumptions underlying recognition of asset impairment.

#### 4.4. Future reversals

Many of the accounting actions mentioned above eventually unwind and affect earnings in future periods.<sup>20</sup> Then, why do CFOs undertake such actions? Most interviewed CFOs argue that in a growing firm the hope is that future earnings growth will offset reversals from past earnings management decisions.<sup>21</sup> One interpretation of this action is that CFOs indulge in earnings management to signal the firm's future growth prospects (e.g., Ronen and Sadan, 1981). However, CFOs acknowledge that if the firm's financial condition continues to deteriorate, small earnings management decisions can cascade and lead to big write-offs or large negative surprises in later periods.

One CFO explains that when the overall economy is down, the firm makes choices that boost earnings. The reversal or the catch-up to this action does not kick in until the economy recovers and earnings are increasing, so the firm can increase discretionary expenditures later without the catch-up being obvious to investors or being painful, because the firm is relatively flush in cash during recovery.

#### 4.5. Earnings guidance

Interviewed CFOs indicate that they use guidance to manage earnings benchmarks linked to analyst forecasts. The data reported in panel A, Table 1 shows that 80.7% of the survey participants guide analysts to some degree. Because archival data on earnings guidance is difficult to obtain, we provide descriptive evidence on firm characteristics associated with guidance.<sup>22</sup> The univariate correlations in Table 1,

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<sup>20</sup>Several interviewed CFOs state that big write-offs often occur when there is a change in management teams. The new managers can blame the need for a write-off on the old management team, while at the same time reducing the earnings expected from the new management team. DeAngelo (1988), Pourciau (1993), and Murphy and Zimmerman (1993) find archival evidence in support of this story.

<sup>21</sup>This is consistent with Lev's (2003) argument that one reason that financial executives manage earnings is that they are die-hard optimists who want to "weather the storm," believing that things will improve in the future.

<sup>22</sup>Hutton (2003) analyses characteristics of firms that provide guidance in the pre-Regulation FD regime.

panel B show that guidance is higher in firms with greater analyst coverage ( $\rho = 0.363$ ,  $p < 0.001$ ), perhaps because analysts demand assistance in predicting earnings or analysts cover firms whose earnings are easier to forecast (Lang and Lundholm, 1996). Growth firms (firms that report higher sales growth,  $\rho = 0.186$ ,  $p < 0.001$ ) are more likely to guide because meeting analyst expectations is important for the stock price trajectory of such firms (Skinner and Sloan, 2002). While we collect information on the degree of guidance provided, we do not ask detailed survey questions on guidance because of space constraints. As a result, most of the following comments on earnings guidance are drawn from interviews. The phrase “managing analysts’ expectations” was volunteered in 11 out of 20 interviews.<sup>23</sup>

CFOs view earnings guidance broadly to include quantitative data such as management forecasts of earnings as well as qualitative statements about the outlook of the firm in coming quarters. Many interviewed CFOs indicate that they guide analysts to a different consensus estimate if there is a gap between their internal projection of where the firm might end up at the end of the quarter and the consensus number. An important reason for giving guidance is to ease the analyst’s job in computing forecasted EPS. Otherwise, executives feel, analysts would go off and “do their own thing,” with the likely result being increased dispersion in earnings estimates, a negative in the eyes of CFOs. Most CFOs guide analysts to a number that is less than the internal target so as to maximize chances of a positive surprise. The rule of thumb that many firms try to follow is to “under-promise and over-deliver.”

Many CFOs deplore the culture of giving earnings guidance and meeting or beating the guided number. They argue that such a culture inhibits managers from thinking about long-term growth and, instead, puts too much focus on beating quarterly targets. Yet, many of these same firms provide guidance because they view the practice as a “necessary evil.”

Several of the interviewed companies contemplate reducing or eliminating earnings guidance. Providing guidance can be desirable when the company is stable and the executives feel that they will be able to meet or exceed the guided number. In this case, providing guidance reduces the chance of missing consensus (perhaps because the unguided consensus might be based on faulty information or be otherwise unattainable). However, for an unstable company, missing a guided number is a very bad outcome because it implies that management has little control over the firm. For example, analysts might think that the firm is out of control, to the extent that management is unable to deliver an earnings number that they had guided to in the first place. The consequences would be less severe for missing an unguided number. CFOs dislike the prospect of coming up short on their numbers, particularly if they are guided numbers, in part because then the firm has to deal with extensive interrogations from analysts about the reasons for the forecast error, which

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<sup>23</sup>Brown and Higgins (2001) find that relative to managers in 12 other countries, U.S. managers are more likely to manage analyst expectations to avoid reporting negative earnings surprises.



limits their opportunity to talk about long-run or strategic issues.<sup>24</sup> As mentioned before, such questioning casts a pall over the entire conference call.

Of the 20, two interviewed firms had given up guidance. It is interesting to note that these two firms had reported losses for several quarters. When the firm is unstable and reporting negative earnings, CFOs feel that they are better off talking about assumptions underlying the earnings process and the firm's performance relative to those assumptions, so that analysts can make their own earnings estimates. (We note that this can be thought of as "indirect guidance.") While the latter may result in a wider range of earnings forecasts, there are fewer embarrassing last minute surprises of the nature: "whoops, we cannot hit the earnings number that we guided you to." In short, the interviews suggest that guidance is desirable if the firm is stable enough to deliver the guided number, but guidance is undesirable if the firm is unsure of its ability to deliver the guided earnings.

We also ask why analysts would let companies get away with meeting or beating consensus estimates quarter after quarter. Why do analysts not learn from past experience and change their consensus estimates in such a way that meeting or failing to meet the consensus eventually becomes a random, unpredictable event? CFOs point out that analysts are complicit in the earnings game in two ways. First, if a firm is a "bellwether" stock, such that the stock prices of other firms in the same industry co-vary with the bellwether, then analysts might find it worthwhile to let the bellwether stock "look good" and beat the earnings estimates. Otherwise, they run the risk that the stock prices of other firms in the industry would fall if the bellwether firm does not meet the estimate, increasing the odds that the analyst's analysis of those other firms might look bad. Second, analysts feel embarrassed if a firm does not meet or exceed their earnings predictions. As one CFO put it, "analysts viciously turn on you when you fail to come in line with their projections."

When asked about whether they would prefer to meet or to beat the earnings target, several CFOs say they would rather meet (or slightly beat) the earnings target rather than positively surprising the market in a big way every quarter because (i) this could cause the firm to lose credibility, and (ii) providing large earnings this quarter might lead analysts and investors to "ratchet up" expectations of future earnings. Hence, many CFOs prefer to "bank" the excess earnings for use in later time periods. DeFond and Park (1997) present evidence that when current earnings are good and expected future earnings are poor, managers, motivated by concerns over job security, save earnings for the future periods.<sup>25</sup>

Another reason for such behavior—based on conjectures from a few CFOs—is that the market hammers the stock price when the firm fails to meet the consensus estimate, but the stock price is relatively insensitive to the degree to which the target is exceeded. Such an asymmetric reward function creates incentives for managers to smooth earnings. The role of smoothing earnings is discussed next.

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<sup>24</sup>Skinner (1994) also points out that credibility or reputation with analysts is an important motivation for avoiding negative earnings surprises.

<sup>25</sup>CFOs acknowledge the use of accruals to manage earnings here although the survey evidence indicates that real actions, not accruals, are the favored mechanism to meet and beat earnings benchmarks.

## 5. Smooth earnings paths

### 5.1. Preference for smooth earnings paths, keeping cash flows constant

We ask CFOs whether they prefer smooth or bumpy earnings paths, keeping cash flows constant. An overwhelming 96.9% of the survey respondents indicate that they prefer a smooth earnings path. Such strong enthusiasm among managers for smooth earnings is perhaps not reflected in the academic literature.<sup>26</sup> Examples from among the modest number of papers that study earnings smoothing include Ronen and Sadan (1981), Hand (1989), Barth et al. (1999) and Myers and Skinner (1999).<sup>27</sup>

One interviewed CFO says, “businesses are much more volatile than what their earnings numbers would suggest.” A chief motivation for working towards a smooth earnings path is that survey respondents feel that smoother earnings are perceived by investors to be less risky (88.7%, Table 8 and Fig. 7, row 1). CFOs believe that smooth earnings result in lower cost of equity and debt because investors demand a smaller risk premium for smooth earnings (57.1%, row 4). Smooth earnings paths are also thought to achieve and preserve a higher credit rating (42.2%, row 7). Another frequently voiced explanation for preferring smooth earnings is that smoother earnings make it easier for analysts and investors to predict future earnings (79.7%, row 2), and unpredictable earnings lead to a lower stock price (in the opinions of interviewed CFOs).

Intertwined with the risk premium idea are two other motivations to smooth earnings: (i) smoother earnings assure customers and suppliers that the business is stable, perhaps resulting in better terms of trade (66.2%, Table 8, row 3); and (ii) smoother earnings convey higher growth prospects to investors (46.3%, row 5). There is no significant evidence that executives use smoother earnings to communicate true economic performance to outsiders (row 8). This contrasts with claims in the academic literature that executives prefer to smooth out the noisy kinks in the unmanaged earnings process so that market participants can get a feel for the true underlying earnings process. Furthermore, there is no evidence that smoother earnings increase bonus payments (row 9). Indeed, respondents significantly disagree with the bonus payment explanation of smooth earnings. However, it can be difficult to elicit unambiguous responses when asking about respondents’ compensation in survey work.

Conditional analyses reveal that the following types of firms feel that smooth earnings are perceived to be less risky by investors: large firms, low P/E firms, and firms in the technology industry (Table 8, row 1). Reporting smoother earnings to ease analyst predictions of future earnings is viewed as more important in firms that give more guidance and have greater analyst following (row 2). Believing that

<sup>26</sup>Buckmaster (2001) reports that only 16 articles related to earnings smoothing have been published between 1982 and 1998 in Journal of Accounting and Economics, Journal of Accounting Research, The Accounting Review and Contemporary Accounting Research.

<sup>27</sup>Brown (2001) provides field-study evidence that corporate hedging decisions are partly motivated by a desire to smooth accounting earnings. Barton (2001) and Pincus and Rajgopal (2002) argue that firms use accounting accruals and derivatives as substitutes to smooth earnings.

Table 8  
Survey responses to the question: Do the following factors contribute to your company preferring a smooth earnings path?

*Panel A: Unconditional averages*

Question	A smooth earnings path is preferred because it	% agree or strongly agree	% disagree or strongly disagree	Average rating	H <sub>0</sub> : average rating = 0
(1)	Is perceived as less risky by investors	88.7	2.3	1.18	***
(2)	Makes it easier for analysts/investors to predict future earnings	79.7	2.7	0.99	***
(3)	Assures customers/suppliers that business is stable	66.2	13.2	0.61	***
(4)	Reduces the return that investors demand (i.e. smaller risk premium)	57.1	11.3	0.55	***
(5)	Promotes a reputation for transparent and accurate reporting	46.5	18.6	0.32	***
(6)	Conveys higher future growth prospects	46.3	12.4	0.42	***
(7)	Achieves or preserves a desired credit rating	42.2	18.9	0.21	***
(8)	Clarifies true economic performance	24.3	26.0	-0.05	
(9)	Increases bonus payments	15.6	42.5	-0.43	***

*Panel B: Conditional averages*

Question	% agree or strongly agree		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange		
	Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/ Amex	NYSE	
(1)	88.7	85.6	91.9*	92.9	81.1**	88.1	87.1	84.4	91.1*	91.2	88.1	87.7	95.1*	87.1	89.6	85.5	91.0
(2)	79.7	301	76.6	81.9	76.8	82.1	81.1	78.2	76.6	83.0	80.2	79.8	80.0	81.8	78.0	76.4	82.0
(3)	66.2	302	73.3	59.1***	62.5	64.2	67.8	65.3	64.8	65.9	62.6	62.7	63.9	82.9***	60.6	71.3*	63.5
(4)	57.1	301	53.1	61.1	60.7	48.4*	58.7	54.8	53.1	60.0	57.1	56.3	70.0*	59.1	56.1	56.1	57.9
(5)	46.5	301	44.8	48.3	43.8	45.3	43.4	45.2	47.7	41.5	41.8	47.6	45.2	47.5	43.2	48.2	48.0
(6)	46.3	298	45.1	46.9	45.0	43.6	42.6	48.0	44.1	44.4	36.3	45.2	46.6	42.5	39.2	52.1**	51.6

Table 8 (continued)

Panel B: Conditional averages																		
Question	% agree or strongly agree	Obs. Size		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange		
		Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/ Amex	NYSE	
(7)	42.2	301	35.2	49.0**	42.3	40.0	42.7	40.7	35.2	45.5*	40.0	50.0	44.2	29.3*	40.9	42.9	31.5	49.7***
(8)	24.3	300	23.6	24.8	20.7	25.3	19.6	24.4	19.5	26.1	17.8	27.0	25.1	22.5	25.0	23.3	21.1	26.6
(9)	15.6	301	19.3	12.1*	14.4	12.6	14.0	13.8	18.0	11.2	5.6	18.3***	15.5	17.1	11.4	17.8	21.8	11.3**

Question	% agree or strongly agree	Obs.	CEO age		Ownership		Profitable		Firm age		Guidance			Number of analysts			CEO education	
			Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other		
(1)	88.7	302	89.6	85.3	79.1	88.7	87.1	88.9	87.2	89.0	87.2	90.4	90.0	87.8	92.4	86.8		
(2)	79.7	301	80.9	75.0	62.8	79.7**	78.3	80.0	78.0	80.8	75.2	83.4*	75.0	85.3**	80.0	80.3		
(3)	66.2	302	64.9	70.6	83.7	66.2***	74.3	63.1*	70.2	63.7	68.8	64.7	73.6	60.9**	62.9	68.8		
(4)	57.1	301	56.1	60.3	48.8	57.1	59.4	56.0	56.0	56.8	50.5	61.0*	57.1	57.7	55.2	59.0		
(5)	46.5	301	44.3	52.9	41.9	46.5	43.5	45.8	48.9	40.4	35.8	51.9***	43.6	48.1	46.7	46.3		
(6)	46.3	298	46.9	42.6	53.5	46.3	42.6	47.1	46.4	44.4	40.7	49.7	44.6	48.7	43.8	47.3		
(7)	42.2	301	40.9	47.1	74.4	42.2***	44.3	40.2	35.0	48.6**	38.0	44.4	39.6	44.2	41.0	44.1		
(8)	24.3	300	25.3	20.6	27.9	24.3	17.4	25.4	25.7	19.9	17.6	28.3**	18.7	28.2*	21.0	26.2		
(9)	15.6	301	16.1	14.7	20.9	15.6	15.7	14.7	16.4	11.6	14.8	15.0	15.8	14.7	12.4	17.6		

See Table 3 legend for table and variable descriptions.

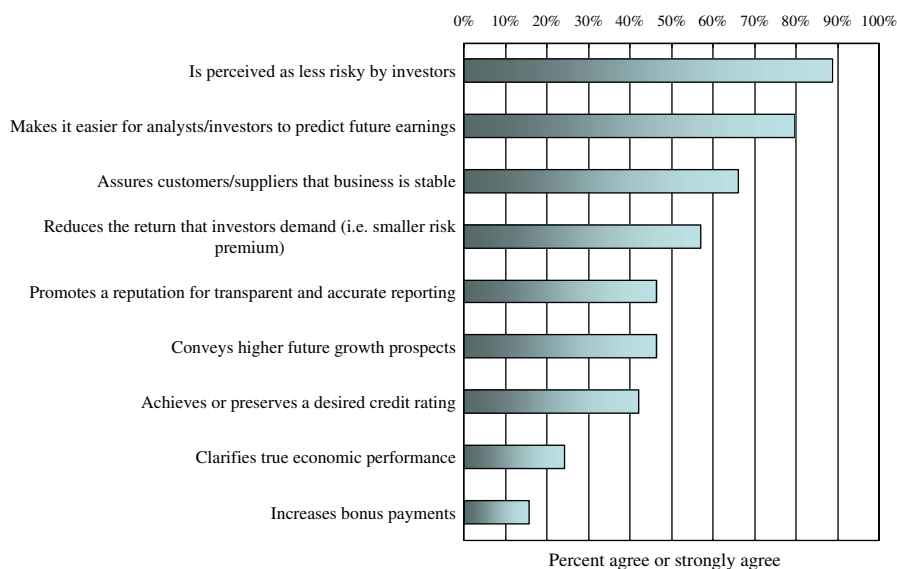


Fig. 7. Responses to the question: “Do the following factors contribute to your company preferring a smooth earnings path?” based on a survey of 401 financial executives.

smoother earnings reassure stakeholders is more popular in smaller firms, firms in the technology sector, insider-dominated firms, and firms that are private, not profitable, and have less analyst coverage (row 3). [Kamin and Ronen \(1978\)](#) also find that smoothing is more prevalent in owner-controlled firms. Note also that more private firms are interested in smoothing earnings to preserve their credit rating than are public firms. In fact, one CFO of a private firm that relies on extensive bank financing mentions that earnings need to be smoothed so that the bank does not get nervous about the firm’s credit worthiness. Another CFO mentioned that private firms manage earnings before they go public.

### 5.2. Sacrificing value for smooth earnings

We directly ask executives how much they would sacrifice to avoid a bumpy earnings path. An astonishing 78% admit that they would sacrifice a small, moderate or large amount of value to achieve a smoother earnings path ([Table 9](#) and [Fig. 8](#)). This finding is consistent with earlier evidence (discussed above) that CFOs would give up economic value to meet an earnings target. Conditional analyses, reported in panel B, indicate modest cross-sectional variation in the responses. Technology firms are more prone to making small sacrifices than non-technology firms, while insider-dominated firms are willing to make moderate sacrifices. Firms that provide much guidance are associated with giving up value to report smoother earnings paths.

To flesh out the survey evidence, we turn to the interviews. The interviews reveal a persistent theme among CFOs: “the market hates uncertainty.” Without exception,

Table 9  
Survey responses to the question: How large a sacrifice in value would your firm make to avoid a bumpy earnings path?

		% of respondents																			
		None			Small sacrifice			Moderate sacrifice			Large sacrifice										
		22.0	52.0	24.0	2.0																
<i>Panel A: Unconditional averages</i>																					
Response	% of Obs. resp.	P/E			Sales growth			D/A			Credit rating			Tech industry			Insider		Exchange		
		Small	Large	Size	Low	High	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/ Amex	NYSE	
None	22.0	23.3	21.8	28.6	20.2	20.6	23.0	23.4	21.5	26.4	21.8	23.8	7.7***	22.7	22.0	18.9	24.2				
Small sacrifice	52.0	51.4	51.7	51.8	52.1	57.4	49.2	53.9	52.6	49.5	51.6	49.2	71.8***	56.1	49.4	58.2	47.8*				
Moderate sacrifice	24.0	24.0	23.8	18.8	23.4	20.6	24.6	20.3	23.7	24.2	25.0	24.6	20.5	18.2	27.4*	22.1	25.3				
Large sacrifice	2.0	1.4	2.7	0.9	4.3	1.4	3.2	2.3	2.2	1.6	2.4	2.4	2.4	3.0	1.2	0.8	2.8				
<i>Panel B: Conditional averages</i>																					
Response	% of Obs. resp.	CEO age			Ownership			Profitable			Firm age			Guidance			Number of analysts			CEO education	
		Young	Mature	CEO age	Private	Public	No	Yes	Young	Old	Yes	Old	Little	Much	Few	Many	MBA	Other			
None	22.0	302	21.7	20.9	14.3	22.0	18.6	23.3	23.2	20.7	28.4	18.3**	24.1	19.4	21.7	21.4					
Small sacrifice	52.0	302	51.7	53.7	57.1	52.0	57.1	50.7	54.2	50.3	48.6	53.2	50.4	54.2	50.9	52.4					
Moderate sacrifice	24.0	302	24.8	22.4	23.8	24.0	21.4	24.2	21.1	26.2	21.1	26.3	23.4	24.5	24.5	24.6					
Large sacrifice	2.0	302	1.7	3.0	4.8	2.0	2.9	1.8	1.4	2.8	1.8	2.2	2.1	1.9	2.8	1.6					

Panel A presents the percentage of all respondents from public firms indicating each choice. See Table 3 legend for table and variable descriptions for panel B.

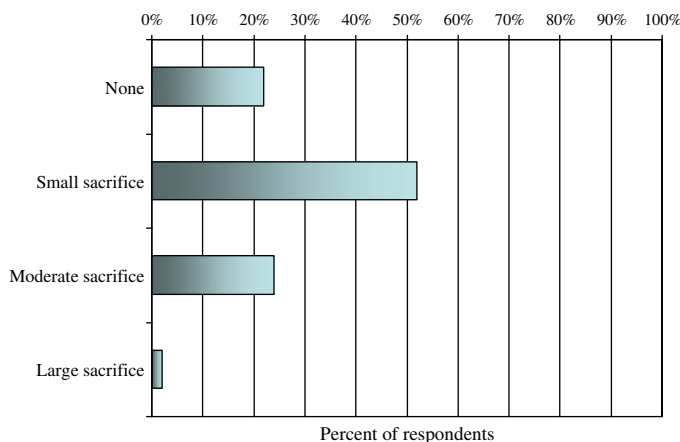


Fig. 8. Responses to the question: “How large a sacrifice in value would your firm make to avoid a bumpy earnings path?” based on a survey of 401 financial executives.

every CFO we spoke with prefers a smoother earnings path to a bumpier one, even if the underlying cash flows are the same. In general, this preference is as obvious to them as saying, “good is better than bad.”

CFOs cite a number of stock-price motivations for their desire to smooth earnings. First, they believe that the stock market values earnings predictability. Many CFOs fear that their P/E multiple would drop if their earnings path were to become more volatile (even if cash flow volatility stays the same).<sup>28</sup> They argue that investors demand a lower “risk premium” if the earnings path is steady (holding the cash flow path constant). When pressed further about why earnings volatility matters over and above cash flow volatility, a few CFOs state that the market becomes more skeptical of underlying cash flows when earnings are volatile. Even if two firms have the same underlying cash flow volatility, executives believe that the firm with the more volatile earnings would be perceived as riskier.

This risk premium is related to the asset pricing literature. First, CFOs seem to believe that estimation risk is important.<sup>29</sup> That is, uncertainty about earnings could induce a perceived estimation risk in expected returns and higher moments used in portfolio selection. This estimation risk may lead to a higher risk premium. Second, both estimation risk and increased volatility are likely to be associated with more disagreement among analysts about earnings prospects. On average, CFOs believe that estimation risk and disagreement lead to a higher cost of capital.<sup>30</sup> Third, in so much as volatile earnings spill over into volatile stock returns, the CFOs indicate

<sup>28</sup>Barth et al. (1999) and Myers and Skinner (1999) document evidence consistent with this concern.

<sup>29</sup>See Klein and Bawa (1976), Jorion (1985), Britten-Jones (1999) and Xia (2001).

<sup>30</sup>In contrast, Diether et al. (2002) show that higher disagreement leads to lower expected returns. Pastor and Veronesi (2003) and Johnson (2004) explain this negative relation using a convexity argument. Ghysels and Juergens (2001) and Anderson et al. (2005) show that disagreement is priced. Also see Miller (1977).

that idiosyncratic volatility is important.<sup>31</sup> Fourth, Barry and Brown (1985, 1986) and Merton (1987) argue that when there is information asymmetry between managers and outside investors, investors demand an information risk premium.<sup>32</sup> Recent accounting research argues that information risk stemming from poor disclosure and earnings quality is priced by equity and debt markets.<sup>33</sup>

We note two additional asset-pricing explanations. First, predictability of earnings makes it easier for investors to get a sense for what portion of earnings will be paid out versus reinvested. Second, the firm has no obvious interest in increasing earnings volatility. CFOs feel that speculators, short-sellers and hedge funds (legal vultures) are the only parties that benefit from more volatile earnings and, consequently, a volatile stock price. Related to the predictability point, one CFO goes so far as to say, “analysts want you to fill in the cells of their modeling spreadsheet for them.” Bumpy earnings streams throw analysts’ spreadsheets “out of gear,” catch them off-guard, and undermine their trust in the company and its numbers. Executives point out that the culture of “predictability in earnings” goes deep down the organizational hierarchy. Divisional managers develop reputations as “no surprise guys” by creating cushions in their revenue and spending budgets. These dependable managers are rewarded in the firm for the “sleep well” factor because they delivered earnings.

CFOs equate the idea of smooth earnings with the desire to avoid negative earnings surprises (relative to earnings targets). In their mind, missing the consensus estimate and volatile earnings are commingled, and both increase uncertainty in investors’ perceptions about the firm. Several CFOs indicate that they would work aggressively within the confines of GAAP to reduce the perception of uncertainty about their firm’s prospects. One executive cited the example of realizing a \$400 million unexpected gain on the sale of a company. Instead of reporting the gain in the quarter that it occurred, the firm purchased collars to smooth the gain into \$40 million of income in each of the next 10 quarters. Since the collar costs money, we surmise that this behavior indicates a willingness to pay real cash flows in order to report smooth accounting earnings over the next 10 quarters.

### 5.3. *Marginal investor and target audience*

We ask CFOs about the perceived marginal price-setter for their stock, who should be a primary target when they set voluntary disclosure and earnings recognition policies. The survey evidence shows that CFOs view institutional investors, followed by analysts, as the most important marginal investors in their stock (Table 10, rows 1 and 2 and Fig. 9). Individual investors are a distant third.

Conditional analyses in panel B highlight several facts. Firms with higher P/E ratios (growth firms) view institutions as more important price-setters of stock price, relative to firms with lower P/E ratios. Firms that are larger, have more analyst

<sup>31</sup>See Goyal and Santa-Clara (2003) for a recent treatment.

<sup>32</sup>See Easley and O’Hara (2004), O’Hara (2003) and Leuz and Verrecchia (2004) for recent treatments.

<sup>33</sup>See Botosan (1997), Sengupta (1998) and Francis et al. (2002).



**Table 10**  
Survey responses to the question: Rank the two most important groups in terms of setting the stock price for your company

<i>Panel A: Unconditional averages</i>													
Group	#1 rankings	#2 rankings	Total points	Average points									
Institutional investors	163	103	429	1.4									
Analysts	108	111	327	1.0									
Individual investors	20	39	79	0.3									
Rating agencies	5	21	31	0.1									
Hedge funds	5	16	26	0.1									

<i>Panel B: Conditional averages</i>																
Group	Average points	Obs.	Size		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider	
			Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High
Institutional investors	1.4	312	1.41	1.33	1.36	1.56**	1.38	1.41	1.51	1.32**	1.42	1.49	1.37	1.45	1.46	1.34
Analysts	1.0	312	0.87	1.21***	1.05	1.03	1.06	1.09	1.02	1.08	1.02	1.16	1.04	1.07	1.08	0.99
Individual investors	0.3	312	0.39	0.12***	0.34	0.22	0.32	0.22	0.34	0.21*	0.31	0.16**	0.26	0.21	0.21	0.29
Rating agencies	0.1	312	0.05	0.15**	0.07	0.08	0.10	0.11	0.05	0.16***	0.14	0.09	0.12	0.00**	0.09	0.09
Hedge funds	0.1	312	0.09	0.07	0.09	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.14	0.09	0.08

Group	Average points	Obs.	Exchange		CEO age		Profitable		Firm age		Guidance		Number of analysts		CEO education	
			NASDAQ/Amex	NYSE	Young	Mature	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other
Institutional investors	1.4	312	1.39	1.37	1.34	1.50	1.39	1.41	1.40	1.40	1.39	1.36	1.34	1.41	1.37	1.40
Analysts	1.0	312	0.96	1.11	1.06	1.03	1.00	1.09	1.05	1.08	0.82	1.18***	0.87	1.21***	1.02	1.08
Individual investors	0.3	312	0.35	0.19**	0.25	0.29	0.21	0.28	0.25	0.29	0.49	0.11***	0.40	0.12***	0.33	0.22*
Rating agencies	0.1	312	0.05	0.14**	0.11	0.06	0.17	0.08**	0.09	0.12	0.05	0.13*	0.12	0.08	0.13	0.09
Hedge funds	0.1	312	0.09	0.08	0.08	0.07	0.11	0.08	0.12	0.05	0.14	0.05**	0.09	0.08	0.04	0.10*

Points are assigned as follows: 2 points for a #1 ranking; 1 point for a #2 ranking. See Table 3 legend for additional table and variable descriptions.

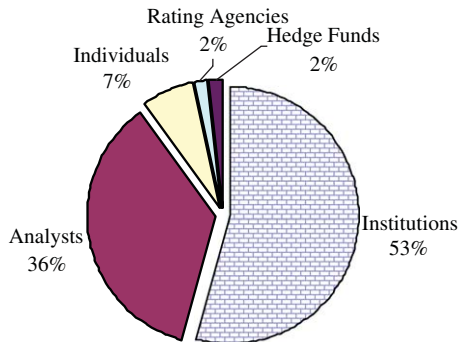


Fig. 9. Responses to the statement: “Rank the two most important groups in terms of setting the stock price for your company” based on a survey of 401 financial executives.

coverage and provide more earnings guidance believe that analysts have important influence on their stock price. Individual investors are perceived as relatively more important by firms that are small, listed on NASDAQ/AMEX, covered by fewer analysts, and less active in guidance. Rating agencies have a bigger influence in firms that are larger, more highly levered, listed on NYSE, unprofitable, and that provide more earnings guidance. Hedge funds are viewed as more active price-setters by firms that do not provide much guidance.

During the interviews, we learned that most CFOs believe that institutional investors set the stock price on the buy-side in the long run, that analysts affect short-term prices, and that retail investors are not often an important price-setter. However, CFOs worry about the perceptions of retail investors because they are potential customers for the firm’s products, as well as investors. That is, CFOs are concerned that missed earnings targets or bumpy earnings paths could affect the confidence of retail investors in the firm’s products and financial stability, especially in a business like banking, where customer confidence is a major driver behind the firm’s success.

When asked why “sophisticated” investors, such as institutions and analysts, would not look beyond short-term earnings misses or a bump in the earnings path, assuming that long-run prospects are relatively unaffected, interviewed CFOs respond in three ways. First, some point out that many players in the market today, especially youthful equity analysts, do not have a sense of history, in that they may not have experienced a full business cycle. Referring to young equity analysts, one agitated CFO remarks, “I don’t see why we have to place these disclosures in the hands of children that do not understand the information.” Such an absence of history makes analysts more prone to overreactions when the firm misses an earnings target or when a new kink appears in the earnings path. Second, fund managers are compensated on the basis of how their funds have done relative to peer managers. If one fund starts selling the firm’s stock when the firm misses an earnings target, fund managers at peer firms have incentives to sell to protect their compensation. Thus, relative performance evaluation of fund managers is believed to promote

“bandwagon” investing and less willingness to hold a stock for the long run. Third, the number of traders who try to profit from day-to-day movements in the stock price has increased in recent times (e.g., hedge funds). If a firm misses an earnings target, this might trigger automatic sell programs, which will drive the price lower. One CFO points out that many investors “sell first and ask questions later.” Finally, when we ask CFOs to explain why earnings misses and the related negative reactions of individual firms ought to matter to a diversified investor, they respond that “these investors diversify by holding less of our stock and more of someone else’s,” indicating again that managers believe that idiosyncratic risk matters.

## 6. Voluntary disclosure decisions

Voluntary disclosure policies are integral to the earnings reporting process. Voluntary disclosures take various forms: press releases (especially for new product introductions and awards), investor and analyst meetings, conference calls, monthly newsletters, field visits with existing and potential institutional investors, and disclosure beyond that mandated in regulatory filings, such as in the 10-Q or 10-Ks (e.g., adding an extra line in financial statements to separate core from non-core items). Firms voluntarily disclose information not required by the SEC and the FASB in an effort to shape the perceptions of market participants and other stakeholders and, hence, to benefit from improved terms of exchange with these parties. Healy and Palepu (2001) identify corporate motivations to voluntarily disclose information as an important unresolved question for future research. A substantial portion of our survey and interviews is dedicated to voluntary disclosure.

### 6.1. Why voluntarily disclose information?

We examine five motivations that the literature has identified as driving managers’ voluntary disclosure decisions (information asymmetry, increased analyst coverage, corporate control contests, stock compensation, and management talent) and four constraints on voluntary disclosure (litigation risk, proprietary costs, political costs, and agency costs) (see Healy and Palepu, 2001). We also introduce two drivers of voluntary disclosure that have not received extensive attention: the limitations of mandatory disclosure and setting a disclosure precedent that may be hard to maintain.

#### 6.1.1. Information asymmetry

Barry and Brown (1985, 1986) and Merton (1987) argue that when managers have more information than do outsiders, investors demand an information risk premium. Firms can reduce their cost of capital by reducing information risk through increased voluntary disclosure. Diamond and Verrecchia (1991) and Kim and Verrecchia (1994) suggest that voluntary disclosure reduces information asymmetry between uninformed and informed investors, and thus increases the liquidity of a firm’s stock. We ask the executives whether the cost of capital or reduction of information risk is

a motivation for voluntary disclosures. More than four-in-five respondents agree or strongly agree with the information risk motivation (Table 11 and Fig. 10, row 2). In a related question, when asked whether voluntary disclosures increase the predictability of their companies' future prospects, 56.2% agree (row 4). The importance of predictability is consistent with the earlier theme that the market hates negative surprises. In fact, predictability of financial results appears to be a unifying, over-arching theme for both quarterly earnings reporting and voluntary disclosure decisions.

Many interviewed CFOs state that reducing uncertainty about the firms' prospects is the most important motivation for making voluntary disclosures. The executives distinguish between "information risk" and "inherent risk." As one CFO puts it, "information risk occurs when the market does not have all the pertinent information about an event or the uncertain cash flows of our firm, whereas inherent risk relates to the uncertainty associated with the underlying cash flows." This CFO believes that voluntary disclosure reduces the information risk of the company, especially if it makes earnings more "predictable." CFOs also mention that releasing bad news can be beneficial if it reduces information risk more than it reduces expectations about cash flows (Skinner, 1994 also discusses this point). In essence, eliminating information risk tightens the distribution of perceived cash flows, leaving only inherent risk to affect stock prices, potentially reducing the risk premium investors demand to hold the company's stock.

Another advantage of releasing bad news is that it can help a firm develop a reputation for providing timely and accurate information. CFOs place a great deal of importance on acquiring such a reputation: 92.1% of the survey respondents believe that developing a reputation for transparent reporting is the key factor motivating voluntary disclosures (Table 11, row 1). Many interviewed executives feel that the primary role of voluntary disclosure is to correct investors' perceptions about current or future performance, so that the stock is priced off company-provided information rather than misinformation (or "rumors" as one CFO put it). One CFO mentions that such a reputation buys him/her "flexibility to take strategic actions that the Street will trust." Another CFO points out that voluntary disclosures help the firm cultivate relationships with institutional investors, and such relationships may "parlay into easier access to capital in the future or a lower cost of capital."

Although only 39.3% agree with the cost of capital motive behind financial disclosure, the difference between the percentage who agree and disagree is statistically significant (Table 11, row 10). In the interviews, roughly the same proportion of executives confirms the direct link to the cost of capital. (Several CFOs link reduction in the dispersion of analyst estimates to subsequent reduction in the cost of capital.) In the interviews, many executives think of the relation as one of receiving a "P/E lift" due to greater voluntary disclosures (which can be thought of as an indirect way of phrasing it in terms of cost of capital reduction). Several CFOs believe that this P/E lift happens because voluntary disclosures enhance the firm's reputation for transparent reporting. The P/E lift motivation gets modest survey support (42% agree or strongly agree versus 18% who do not, a statistically

Table 11  
Survey responses to the question: Do these statements describe your company's motives for voluntarily communicating financial information?

*Panel A: Unconditional averages*

Question	Voluntarily communicating information...	% agree or strongly agree	% disagree or strongly disagree	Average rating	H <sub>0</sub> : average rating = 0
(1)	Promotes a reputation for transparent/accurate reporting	92.1	2.0	1.39	***
(2)	Reduces the "information risk" that investors assign to our stock	81.9	4.3	1.03	***
(3)	Provides important information to investors that is not included in mandatory financial disclosures	72.1	8.9	0.86	***
(4)	Increases the predictability of our company's future prospects	56.2	14.4	0.53	***
(5)	Attracts more financial analysts to follow our stock	50.8	17.0	0.43	***
(6)	Corrects an under-valued stock price	48.4	16.4	0.37	***
(7)	Increases the overall liquidity of our stock	44.3	17.4	0.31	***
(8)	Increases our P/E ratio	42.0	18.0	0.27	***
(9)	Reveals to outsiders the skill level of our managers	41.3	26.2	0.16	**
(10)	Reduces our cost of capital	39.3	22.0	0.17	***
(11)	Reduces the risk premium employees demand for holding stock granted as compensation	9.2	49.2	-0.57	***

*Panel B: Conditional averages*

Question	% agree or strongly agree		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange			
	Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/Amex	NYSE		
(1)	92.1	30.5	90.6	94.0	92.9	90.7	89.1	93.8	88.5	93.6	91.3	94.6	91.4	97.6**	91.2	92.6	91.3	92.7
(2)	81.9	30.4	78.2	85.3	78.8	85.6	77.0	84.4	77.9	81.6	79.6	83.7	81.2	85.0	80.9	82.7	73.6	87.7***
(3)	72.1	30.5	66.9	77.3**	73.5	68.0	66.2	76.6*	66.4	75.9*	71.0	72.1	73.4	70.0	72.8	71.2	67.5	75.4
(4)	56.2	30.6	47.7	64.7***	56.6	58.8	49.3	60.9*	49.6	61.7***	51.6	62.0	57.0	53.7	54.4	56.4	49.6	60.9***
(5)	50.8	30.5	57.0	45.6**	53.1	44.8	49.0	52.3	52.7	50.7	54.8	46.1	49.8	58.5	44.4	55.2*	56.7	46.6*
(6)	48.4	30.4	51.0	46.7	48.7	48.5	46.3	50.8	46.9	51.1	55.4	45.7	46.7	60.0	46.7	49.7	50.0	47.2

Table 11 (continued)

Panel B: Conditional averages																		
Question	% agree or strongly agree	Obs. Size		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange		
		Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/Amex	NYSE	
(7)	44.3	305	51.4	37.3**	44.2	38.1	43.9	41.4	39.7	49.6*	45.2	37.2	43.8	47.5	46.3	42.9	50.8	39.7*
(8)	42.0	305	43.2	41.3	43.4	50.5	33.8	50.8***	42.0	44.0	44.1	43.4	41.4	45.0	38.2	46.6	45.2	39.7
(9)	41.3	305	45.9	36.0*	44.2	43.3	37.8	47.7*	38.2	44.0	40.9	41.1	40.6	47.5	42.6	41.1	43.7	39.7
(10)	39.3	305	32.4	45.3**	46.0	32.0**	35.8	45.3	32.1	47.5***	44.1	43.4	39.8	37.5	43.4	36.2	37.3	40.8
(11)	9.2	303	8.2	10.0	6.2	8.3	8.1	9.4	7.7	9.9	8.6	7.0	7.9	20.0*	9.6	8.1	11.3	7.8

Question	% agree or strongly agree	Obs. CEO age		Ownership		Profitable		Firm age		Guidance		Number of analysts		CEO education		
		Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other	
(1)	92.1	305	92.2	92.9	84.1	92.1	88.0	93.4	93.1	90.7	88.5	94.6*	88.8	94.9*	94.3	91.1
(2)	81.9	304	81.4	84.3	55.6	81.9***	78.4	82.9	77.9	86.0*	76.1	85.5**	76.1	87.3**	84.0	81.0
(3)	72.1	305	70.3	78.6	55.6	72.1**	70.7	72.8	73.3	72.0	69.0	74.3	67.8	76.4*	70.8	74.2
(4)	56.2	306	55.8	55.7	51.1	56.2	57.9	55.7	50.0	60.7*	50.4	58.8	49.7	61.1**	61.3	52.4
(5)	50.8	305	52.6	44.3	15.9	50.8***	56.6	48.9	55.5	47.7	46.0	52.7	53.8	47.4	49.1	51.6
(6)	48.4	304	48.5	47.1	15.6	48.4***	62.2	43.9***	55.2	42.7**	44.6	51.3	45.8	51.6	47.2	48.1
(7)	44.3	305	45.3	40.0	17.8	44.3***	48.0	43.0	44.5	43.3	42.5	44.4	48.3	41.4	43.4	44.7
(8)	42.0	305	42.2	41.4	22.2	42.0***	37.3	43.4	44.5	40.0	36.3	45.5	33.6	51.0***	39.6	43.2
(9)	41.3	305	40.5	45.7	46.7	41.3	40.0	42.1	43.8	40.7	41.6	41.2	41.3	42.0	40.6	42.6
(10)	39.3	305	39.2	40.0	45.7	39.3	42.7	38.2	38.4	40.7	33.6	42.2	33.6	45.2**	41.5	38.4
(11)	9.2	303	10.4	5.8	17.8	9.2	10.8	7.9	9.7	8.7	5.4	11.3*	7.7	10.9	13.3	6.3*

See Table 3 legend for table and variable descriptions.

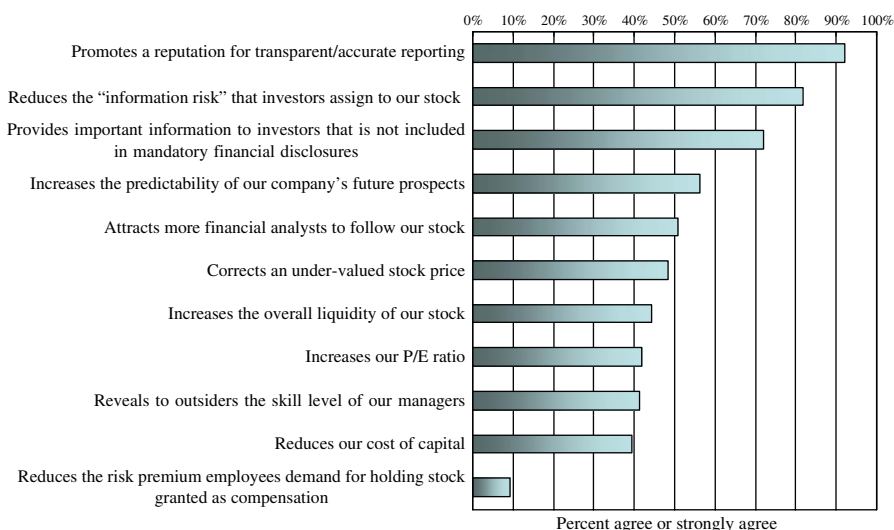


Fig. 10. Responses to the question: "Do these statements describe your company's motives for voluntarily communicating financial information?" based on a survey of 401 financial executives.

significant difference; row 8). Of course, the P/E lift could be caused by either a lower cost of capital, increased growth rates or some combination.

During the interviews, CFOs of companies with smaller market capitalizations suggest that liquidity of their firm's stock improves when they make voluntary disclosures. The survey evidence reveals support for the liquidity motivation (44.3%, Table 11, row 7), especially among small firms.

Other conditional analyses provide the following insights. Large firms are more concerned about the predictability of future prospects and reducing the cost of capital. Small firms care more about using disclosure to increase the liquidity of their stock. Not surprisingly, low P/E firms care about the cost of capital motivation of voluntary disclosures (Table 11, row 10). High growth firms are interested in using voluntary disclosures to communicate the predictability of future growth prospects (row 4). Highly levered firms care about predictability of future prospects and the cost of capital motivation (rows 4 and 10). Firms with large analyst coverage view reputation for transparent reporting, reducing information risk, increasing predictability and a reduction in the cost of capital as relatively important motivations for voluntary disclosures (rows 1, 4, 8 and 10).

#### 6.1.2. Increased analyst coverage

Bhushan (1989a, b) and Lang and Lundholm (1996) argue that management's private information is not fully revealed through required disclosures; voluntary disclosure lowers the cost of information acquisition for analysts and increases the amount of information available to analysts, and hence increases the number of

analysts following the firm. The survey results offer some support for this motivation (50.8%, Table 11, row 5). Small firms and insider-dominated firms are relatively interested in using disclosure to attract more analysts.

### 6.1.3. Stock price motivations

Healy and Palepu (2001) hypothesize that the risk of job loss accompanying poor stock and earnings performance encourages managers to use corporate disclosures to reduce the likelihood of under-valuation and the need to explain away poor earnings performance. Survey evidence suggests that 48.4% of CFOs use voluntary disclosures to correct an undervalued stock price (Table 11, row 6). Conditional analyses reveal that unprofitable firms and young firms care more about this motivation than profitable and older firms.

### 6.1.4. Stock compensation

Evidence linking voluntary disclosure to compensation (e.g., Noe, 1999; Aboody and Kasznik, 2000; Miller and Piotroski, 2000) suggests that managers acting in the interest of existing shareholders have incentives to reduce contracting costs associated with stock compensation for new employees. Otherwise, employees will demand a risk premium to shield them from the information advantage held by managers. The survey evidence does not appear to support this story. Half of the respondents disagree or strongly disagree with the idea that voluntary disclosures are made to reduce the risk premium demanded by employees for holding stock granted as compensation (Table 11, row 11). There is modest conditional support for this motivation in the technology sector, where stock compensation is likely more prevalent.

### 6.1.5. Management talent signaling

Trueman (1986) argues that a talented manager has an incentive to make voluntary disclosures to signal his or her type. The survey evidence for this motivation is statistically significant, although this motivation ranks near the bottom in terms of importance (41.3% for and 26.1% against, Table 11, row 9). No interviewed CFO explicitly mentioned the role of talent signaling while discussing their motivations to voluntarily communicate information to the market. Conditional analyses indicate that this motivation is relatively more important for managers of smaller and high growth firms.

### 6.1.6. Limitations of mandatory disclosures

Nearly three-fourths of the respondents feel that voluntary disclosures correct gaps in the usefulness of mandatory financial disclosures to investors. Conditional analyses reveal that this concern is severe for firms that are large, high-growth, highly levered and well covered by analysts (Table 11, panel B, row 3). This motivation for voluntary disclosure does not get significant attention in the academic literature. As one interviewed CFO said, some prescribed disclosures from the FASB “confuse rather than enlighten” the users of financial statements. A CFO of a financial institution makes the incredible remark: “some of our own mandated



footnotes related to off-balance sheet items and securitizations are so complex, even I don't understand them." CFOs point out that mandated summary financial statements are reported once a quarter and, hence, lack timeliness. Moreover, mandatory statements ignore non-financial indicators of future earnings, such as product pipeline. CFOs state that GAAP-based financial reporting ignores intangible assets such as "people, processes and brand position."<sup>34</sup>

## 6.2. Constraints on voluntary disclosures

We investigate the factors that constrain voluntary disclosures, with results summarized in Table 12 and Fig. 11.

### 6.2.1. Disclosure precedent

The most common reason that executives limit voluntary disclosure is related to setting a precedent. More than two-thirds of the survey participants (69.6% in Table 12, row 1) agree or strongly agree that a constraint on current disclosure is the desire to avoid setting a disclosure precedent that is difficult to maintain in the future. Conditional analyses, reported in panel B, reveal that setting disclosure precedents is more important in insider-dominated firms.<sup>35</sup> The disclosure precedence constraint can be viewed as similar to the commitment cost of increasing voluntary disclosure, discussed in Diamond and Verrecchia (1991) and Verrecchia (2001).

Several interviewed CFOs state that they would not make an earnings forecast or start making voluntary disclosures of non-financial leading indicators for fear of starting a practice that they might later want to abandon. One CFO likened this process to "getting on a treadmill" that you can not get off. The market then expects the company to maintain the newly initiated disclosures every quarter, regardless of whether the news is good or bad.

### 6.2.2. Litigation costs

Previous research argues that the threat of litigation can affect voluntary disclosures in two ways. First, the threat of litigation can induce managers to disclose information, especially bad news (Skinner, 1994, 1997; Francis et al., 1994). Second, litigation can potentially reduce managers' incentives to provide forward-looking disclosures. The survey provides moderately supportive evidence: 46.4% of the respondents agree or strongly agree with the litigation cost hypothesis (Table 12, row 3). Conditional analyses, reported in panel B of Table 12, reveal that litigation costs are a major concern for firms that are young, listed on NASDAQ or AMEX, or in the technology sector.

<sup>34</sup>In the literature, Lev (2001) discusses weaknesses in accounting and disclosure of intangibles. Bushee et al. (2003) and Tasker (1998), among others, argue that less informative financial statements create incentives for more voluntary disclosure.

<sup>35</sup>This could be interpreted as insiders trying to protect their 'insider' advantage. In addition, extra disclosure might limit the ability to delay the release of bad news (Niehaus and Roth, 1999) or earnings management in general (Beneish et al., 2004) after insider selling.

Table 12  
Survey responses to the question: Limiting voluntary communication of financial information helps...

*Panel A: Unconditional averages*

Question	% agree or strongly agree	% disagree or strongly disagree	Average rating	H0: average rating = 0
(1) Avoid setting a disclosure precedent that may be difficult to continue	69.6	14.7	0.74	***
(2) Avoid giving away "company secrets" or otherwise harming our competitive position	58.8	24.8	0.49	***
(3) Avoid possible lawsuits if future results don't match forward-looking disclosures	46.4	25.5	0.26	***
(4) Avoid potential follow-up questions about unimportant items	36.7	30.5	0.04	
(5) Avoid attracting unwanted scrutiny by regulators	20.3	56.7	-0.52	***
(6) Avoid attracting unwanted scrutiny by stockholders and bondholders	16.8	54.8	-0.56	***

*Panel B: Conditional averages*

Question	% agree or strongly agree	Obs. Size		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange		
		Small	Large	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High		NASDAQ/Amex	NYSE
(1)	69.6	306	73.8	66.7	66.4	69.1	72.3	64.8	71.8	66.7	65.6	69.0	69.1	78.0	61.8	74.8**	70.1	69.3
(2)	58.8	306	64.4	52.7**	54.0	63.9	62.2	58.6	67.2	52.5**	59.1	61.2	57.8	68.3	55.9	61.3	64.6	54.7*

(3)	46.4	306	48.3	46.0	46.0	43.3	46.6	44.5	49.6	39.7*	44.1	42.6	44.1	61.0**	41.9	48.5	52.8	41.9*
(4)	36.7	305	35.8	38.0	34.5	36.1	34.5	39.1	38.2	33.3	33.3	43.4	38.3	32.5	32.4	41.1	34.1	38.5
(5)	20.3	305	20.9	20.7	15.9	22.7	21.6	20.3	20.6	17.0	17.2	23.3	19.9	27.5	15.4	23.3*	22.2	19.0
(6)	16.8	303	15.8	18.7	17.7	17.7	18.9	17.5	14.6	18.6	18.5	19.4	18.5	10.0	13.4	19.0	15.3	17.9
Question	% agree or strongly agree	Obs.	CEO age		Ownership		Profitable		Firm age		Guidance		Number of analysts		CEO education			
			Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other		
(1)	69.6	306	70.4	68.6	66.7	69.6	75.0	68.0	69.9	68.0	70.8	68.4	72.0	66.9	67.0	70.2		
(2)	58.8	306	58.8	61.4	66.7	58.8	60.5	57.9	61.0	56.7	66.4	55.1**	62.2	56.7	57.5	60.2		
(3)	46.4	306	47.2	44.3	40.0	46.4	51.3	44.7	52.7	40.0**	47.8	44.4	48.3	44.6	44.3	47.1		
(4)	36.7	305	38.4	31.4	51.1	36.7*	38.7	36.0	36.3	36.7	32.7	39.6	32.2	41.4*	37.7	35.8		
(5)	20.3	305	19.8	22.9	31.1	20.3	22.7	19.7	23.3	17.3	23.0	19.3	17.5	22.3	23.6	18.9		
(6)	16.8	303	17.0	17.1	26.7	16.8	16.2	17.2	18.1	16.7	19.8	15.5	17.0	16.6	13.2	19.7		

See Table 3 legend for table and variable descriptions.

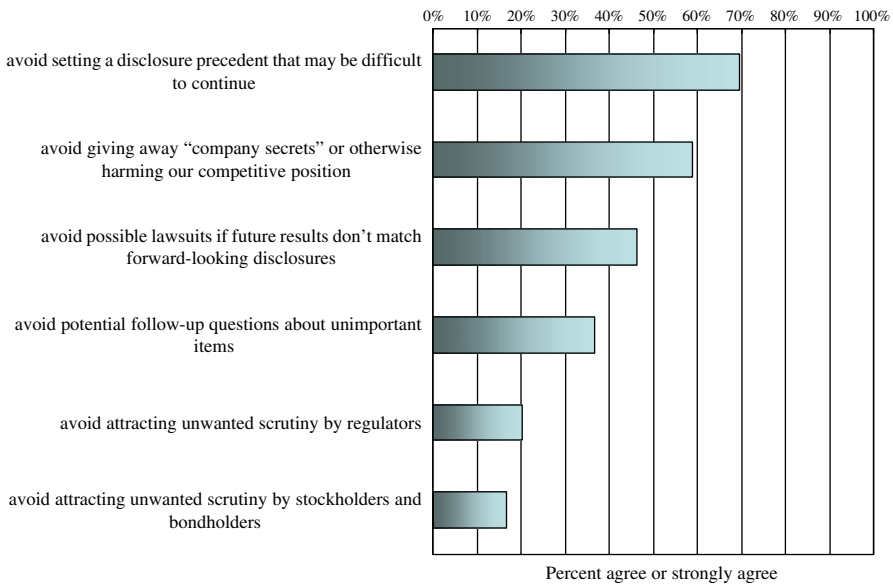


Fig. 11. Responses to the question: "Limiting voluntary communication of financial information helps..." based on a survey of 401 financial executives.

One interviewed CFO points out that short-run stock return volatility attracts class-action lawyers who have computer programs that identify firms (for potential law suit) whose stock prices fall more than 20% in a few days. The CFO laments that the Safe Harbor legislation passed in the late 1990s has had virtually no effect on lawsuits. It is not as much a question of whether a firm can win or lose a lawsuit, because most of them get settled out of court. Executives believe that class-action lawyers target a settlement that is slightly smaller than the cost of going to court. The press coverage associated with the potentially frivolous lawsuit is another deterrent. We revisit the litigation hypothesis in Section 6.3, where we investigate factors that encourage firms to report bad news quickly.

### 6.2.3. Proprietary costs

Several researchers argue that we do not observe full disclosure due to proprietary costs, reflecting concern that some disclosures might jeopardize the firm's competitive position in the product market (see Verrecchia, 2001; Dye, 2001). Nearly three-fifths of survey respondents agree or strongly agree that giving away company secrets is an important barrier to more voluntary disclosure (Table 12, row 2). Conditional analyses, reported in panel B, reveal that small firms and those listed on NASDAQ or AMEX and that provide little earnings guidance are more worried about proprietary costs. A few interviewed CFOs cite proprietary costs as a significant barrier to more disclosure. CFOs do not want to explicitly reveal sensitive proprietary information "on a platter" to competitors, even if such information

could be partially inferred by competitors from other sources, such as trade journals or trade conferences.

#### 6.2.4. Agency costs

Agency issues may represent an important tension that explains lack of full disclosure, as suggested by Nanda et al. (2003) and Berger and Hann (2003). Managers acknowledge, in Sections 3.3.4 and 6.1.5, that career concerns and external reputation are important drivers of the need to meet earnings benchmarks and voluntarily disclose information. However, managers do not say (or at least, are reluctant to admit) that they limit voluntary disclosures to avoid unwanted attention from stakeholders. For instance, an insignificant proportion of respondents agree that their firms limit voluntary disclosures to avoid potential follow-up questions about other unimportant items (Table 12, row 4). When we specifically ask whether avoiding unwanted scrutiny from bondholders and stockholders is a constraint on voluntary disclosure, the majority of the survey participants reply that unwanted scrutiny is *not* an important factor (row 6). However, given the importance attached to career concerns in the interviews and other parts of the survey, we conclude that there is support for agency cost explanation when the evidence is read as a whole.

#### 6.2.5. Political costs

Although the positive theory literature emphasizes the role of political costs in accounting and disclosure decisions (Watts and Zimmerman, 1978, 1986), the survey evidence does not shed much insight on the political cost argument. A majority of survey participants disagree or strongly disagree with the hypothesis that avoiding unwanted attention from regulators is a significant barrier to voluntary disclosure (Table 12, row 5). We recognize, however, that eliciting truthful responses to this question might be difficult because managers might not want to voluntarily disclose information that could be used against by them regulators. Firms with high inside ownership are more concerned about regulatory scrutiny, although the absolute magnitude of concern is still modest.

### 6.3. Bad news versus good news

The accounting literature has long recognized that managers have incentive to differentially disclose good news versus bad news (e.g., Pastena and Ronen, 1979; Skinner, 1994, 1997; Francis et al., 1994; Bagnoli et al., 2004). The survey evidence is fairly symmetric in terms of the timing of the disclosure of good news and bad news. 52.9% of the survey respondents give no preferential treatment to disclosing good or bad news faster (panel A of Table 13). Another 20.5% (26.6%) of the sample claims that they release good (bad) news faster. In untabulated analyses, relative to unprofitable firms, profitable firms are more inclined to release bad news faster; that is, bad firms are more likely to *delay* bad news. For example, the sales growth rate of firms that say they delay bad news releases relative to good news is  $-0.9\%$ , compared to sales growth of  $9.4\%$  for firms that release bad news faster.

Table 13  
 Questions related to timing of disclosures. Survey responses to the question: Do the following statements describe your company's motives related to the timing of voluntary disclosures?

*Panel A: Survey responses to the question: Based on your company's experience, is good news or bad news released to the public faster?*

	Bad news faster	No difference	Good news faster	Average rating
	26.6	52.9	20.5	-0.12

*Panel B: Survey responses to the question: Do the following statements describe your company's motives related to the timing of voluntary disclosures?*

Question	% agree or strongly agree	% disagree or strongly disagree	Average rating	H <sub>0</sub> : average rating = 0
(1) Disclosing bad news faster enhances our reputation for transparent and accurate reporting	76.8	3.7	0.93	***
(2) Disclosing bad news faster reduces our risk of potential lawsuits	76.8	8.5	0.91	***
(3) Good news is released faster because bad news takes longer to analyze and interpret	66.7	12.7	0.76	***
(4) Good news is released faster because we try to package bad news with other disclosures which can result in a coordination delay	35.5	37.1	-0.05	

*Panel C: Conditional averages*

Question	% agree or strongly agree	Obs.		Size		P/E		Sales growth		D/A		Credit rating		Tech industry		Insider		Exchange	
		Small	Large	Low	High	Low	High	Low	High	Low	High	Other	Tech	Low	High	NASDAQ/Amex	NYSE		
(1)	76.8	82	72.2	80.4	80.0	78.6	75.8	75.8	73.0	82.5	79.3	75.8	76.1	77.8	78.0	75.6	77.4	76.5	
(2)	76.8	82	75.0	78.3	88.6	60.7***	78.6	72.7	73.0	77.5	82.8	72.7	77.5	66.7	78.0	75.6	83.9	72.5	
(3)	66.7	63	68.8	66.7	68.2	72.7	61.8	68.4	66.7	62.1	60.0	61.5	66.0	75.0	68.0	61.8	57.1	74.3	
(4)	35.5	62	41.9	30.0	22.7	36.4	47.1	15.8***	38.1	34.5	13.3	42.3**	36.0	36.4	40.0	29.4	37.0	34.3	

Question	% agree or strongly agree	Obs.	CEO age		Ownership		Profitable		Firm age		Guidance		Number of analysts		CEO education	
			Young	Mature	Private	Public	No	Yes	Young	Old	Little	Much	Few	Many	MBA	Other
(1)	76.8	82	77.8	72.2	71.4	76.8	70.6	78.5	75.0	79.1	75.0	78.3	70.6	80.9	84.0	74.1
(2)	76.8	82	74.6	83.3	42.9	76.8*	82.4	75.4	77.8	76.7	72.2	80.4	82.4	72.3	56.0	85.2***
(3)	66.7	63	65.3	71.4	55.6	66.7	54.5	71.1	69.0	58.6	60.9	69.4	63.3	69.0	76.2	61.9
(4)	35.5	62	39.6	21.4	38.9	35.5	42.9	28.9	41.4	27.6	39.1	33.3	33.3	37.9	23.8	41.5

See Table 3 legend for table and variable descriptions. Responses used in rows (1) and (2) include only those respondents who indicated a preference for disclosing bad news faster. Likewise, responses used in rows (3) and (4) include only those respondents who indicated a preference for disclosing good news faster.

When asked detailed questions about the speed of information release, 76.8% of the respondents say that they reveal bad news faster to reduce the possibility of a lawsuit resulting from failure to disclose timely information (e.g., unfavorable news) to the market (Table 13, panel B, row 2). This finding is consistent with Skinner's (1994, 1997) results. Conditional analyses, reported in panel C, reveal that this concern is more pronounced among low P/E firms. One interviewed CFO states that he/she attempts to pre-empt bad news revelations from other sources. The thinking is that it is better that the news comes from the firm rather than from outside sources. This enables the firm to position the bad news in the best possible light.

During the interviews, CFOs indicate that both good news and bad news need to be communicated in a timely manner to "build credibility with the market," as one CFO put it. The survey data confirm this statement because 76.8% of the respondents agree or strongly agree that disclosing bad news faster enhances the firm's reputation for transparent and accurate reporting (Table 13, panel B, row 1). At the same time, in the interviews some CFOs admit that they do not mind "fuzziness" in bad news disclosures.

Several interviewed CFOs argue that they delay bad news in order to further study and interpret the information, or in hopes that the firm's status will improve before the next required information release, perhaps saving the company the need to ever release the bad information (e.g., interest rates might rise before year-end, correcting a current imbalance in pension funding). The survey provides strong support for delaying bad news to allow analysis and interpretation: Two-thirds of executives agree or strongly agree with this assertion (panel B, row 3). Some interviewed CFOs also point to the possibility of packaging bad news with other disclosures. However, only 35.5% of surveyed CFOs agree with this strategy (row 4).

## **7. Summary and conclusions**

This paper reports financial executives' opinions and motives for earnings management and voluntary disclosure. Our interview and survey evidence contributes in four different dimensions. First, we establish some stylized facts about financial reporting. Second, executives rate the descriptive validity of academic theories about why managers make voluntary disclosures or manage reported earnings numbers. Third, the interviews and surveys suggest new explanations for several phenomena that have not received extensive attention in the academic literature. Fourth, we identify simple heuristics that determine the process by which executives make financial reporting decisions.

In terms of stylized facts, we find that financial officers view earnings, not cash flows, as the most important metric reported to outsiders. Managers are focused on short-term earnings benchmarks, especially the seasonally lagged quarterly earnings number and the analyst consensus estimate.

We find that managers want to meet or beat earnings benchmarks to (i) build credibility with the capital market; (ii) maintain or increase stock price; (iii) improve the external reputation of the management team; and (iv) convey future growth

prospects. Failure to hit earnings benchmarks creates uncertainty about a firm's prospects, and raises the possibility of hidden, deeper problems at the firm. Moreover, managers are concerned about spending considerable time after the earnings announcement explaining why they missed the benchmark, rather than presenting their vision of the firm's future.

The most surprising finding in our study is that most earnings management is achieved via real actions as opposed to accounting manipulations. Managers candidly admit that they would take real economic actions such as delaying maintenance or advertising expenditure, and would even give up positive NPV projects, to meet short-term earnings benchmarks. To our knowledge, such unambiguous managerial intent to burn economic value to meet financial reporting goals has not been previously documented. Surprisingly, executives are more reluctant to employ within-GAAP accounting discretion, such as accrual management, to meet earnings targets, although accrual management is likely cheaper than giving up economic value. This tendency to substitute real economic actions in place of accounting discretion might be a consequence of the stigma attached to accounting fraud in the post-Enron and post-Sarbanes–Oxley world.

In general, we find that CFOs appear as keen in the post-Sarbanes–Oxley environment as before to meet or beat earnings benchmarks, especially analyst consensus forecasts, because they fear retribution from stock markets. Unless there is a fundamental change in the manner in which stock markets perceive small misses from earnings benchmarks, the pressure that CFOs feel to manage earnings, either via real or accounting actions, and influence analyst expectations is unlikely to go away.

The executives have a strong preference for smooth earnings—which are perceived as less risky by investors. Moreover, respondents believe that smoother earnings improve the predictability of future earnings, which in turn increases stock price. Smooth earnings also reassure suppliers and customers that the business is stable. There is not much support for the traditional economic argument that smoothing out kinks in the firm's earnings process helps managers communicate the true economic performance of the firm to outsiders. The consequences of a failure to smooth earnings are perceived to be severe. Remarkably, more than three-fourths of managers are willing to sacrifice some economic value to achieve smooth earnings paths.

Our study also includes a small sample of private firms. While there are some important differences in the results (e.g., private firms are relatively more interested in cash flows than are public firms), the surprise is the broad similarity in themes. Private firms are also driven to manage earnings through real actions. These firms also have a preference for smooth earnings and are as willing (or more willing) to sacrifice value to smooth earnings. While the actions are similar, the underlying causes are different. While public firms are driven to hit the consensus earnings target, private firms are concerned with the perceptions of their creditors and the need to establish a stable track record for a possible future IPO.

We find that voluntary disclosure is an important tool in the CFO's arsenal. Firms make voluntary disclosures for three main reasons: (i) to promote a reputation for



transparent reporting; (ii) to reduce the information risk assigned to the firm's stock; and (iii) to address the deficiencies of mandatory reporting. The biggest barriers to voluntary disclosure are fear of setting a disclosure precedent that may be difficult to maintain in the future and concerns about giving up proprietary information to competitors. Managers state that they release bad news faster than good news to promote a reputation of transparent reporting and to avoid potential lawsuits, though bad news is sometimes delayed to allow in-depth analysis, interpretation, and consolidation into larger news releases. Also, poorly performing firms delay releasing bad news, relative to the speed at which healthy firms release bad news.

The body of evidence presented here suggests that CFOs manage financial reporting practices to influence their stock price, in general, and current stock price, in particular. Our analysis suggests that managers worry about short-run stock prices because (i) they believe that short-run stock price volatility affects a firm's cost capital; (ii) CFOs, and by extension CEOs, are concerned about losing their jobs if the stock price falls; (iii) managers think that the labor market assesses their skill level based on short-run stock prices; (iv) managers seek to attract equity analysts to cover their stock; and (v) they seek to avoid embarrassing inquisitions by stock analysts in conference calls, if stock price falls. Although we do not find strong support for the bonus hypothesis, exercisable stock options held by managers suggest another reason why managers care about short-run stock prices.

The world is a complicated place, though corporate decision rules often are not. Executives often employ simple decision rules or heuristics in response to a handful of widely held beliefs about how outsiders and stakeholders will react. These anticipated reactions are the "rules of the game" that dictate the playing field for many earnings management and disclosure decisions. The rules of the game include the following: (i) the stock market values predictability of earnings because market participants hate the uncertainty created by a firm failing to hit the earnings benchmark or by earnings that are not sufficiently smooth; (ii) there is a widely held belief that every firm manages earnings to hit targets, so if one firm does not manage and misses a target, it will get punished; (iii) because everybody manages earnings, if a firm misses a benchmark, it likely has revealed previously hidden problems at the firm, which worsens the perception of future growth prospects; (iv) managers try to maximize smoothness in earnings—volatile earnings are bad because they convey higher risk and/or lower growth prospects; and (v) firms should voluntarily disclose market-moving information because doing so results in lower information risk. We believe that future research can fruitfully explore in greater depth why and how these rules are selected and implications of these rules for financial reporting policies.

In the end, many of our results are disturbing. The majority of CFOs admit to sacrificing long-term economic value to hit a target or to smooth short-term earnings. Such actions suggest a flaw in corporate governance practices. For example, Boards of Directors are presented with the large investment projects that management is advocating. They do not usually see the projects—some having substantial positive net present value—that management declines to bring forward. In addition, the reward systems in place at many firms emphasize short-term results. Ironically, if it is a *fait accompli* that managers will smooth earnings, shareholders

should prefer within-GAAP accrual actions rather than real economic sacrifices. However, our evidence suggests a preference for real economic actions. Most of the recent attention on improving corporate governance has focused on reliability of the accounting numbers. Our paper suggests that the focus needs to be expanded to the real business decisions of managers.

## Appendix A

Examples from interviews of real decisions to manage financial reporting outcomes:

- A CFO at a research-intensive firm indicates the role of “investment triggers” based on whether the firm’s actual EPS would fall within or outside the range of earnings guidance. If the actual EPS comes in below the lower end of the guided EPS range, the “disinvestment trigger” goes off and the firm eliminates or postpones R&D spending (on positive NPV R&D projects) until a later time. Conversely, if the actual EPS comes in above the higher end of the guided EPS range, the “investment trigger” trips and the firm invests the surplus earnings into R&D projects (or takes another action that would “bank” the earnings for the future). We asked why the firm would not take all the positive NPV R&D projects, regardless of whether the reported EPS falls in the guided range or not. The CFO responded that the market has certain expectations about EPS growth from year to year and there is a trade-off between delivering EPS growth to the market and investing in R&D projects that would payoff in the long run.
- A number of CFOs cite the example of funding pension plans. To cite one detailed instance, the firm had chosen a discount rate of 6.5%–7.0% at the end of calendar year 2002 to value its pension liability. The firm’s fair value of pension assets, most of which were invested in U.S. equities, had lost value in recent years on account of the poor performance of the stock market. Hence, the fair value of the pension assets (FVPA) fell below the projected benefit pension obligation but was higher than the accumulated pension benefit obligation (ABO). After interest rates fell in 2003, adopting a discount rate of around 5% would leave the firm with a large under-funded position on the pension plan (FVPA < ABO). This would mean that the firm would lose its pre-funded pension asset from the 2003 balance sheet. The CFO acknowledged that loss of the pre-funded pension asset would attract the attention of analysts and investors, and perhaps even result in the need to book a minimum pension liability. One way to avoid this outcome is to contribute cash to the pension plan.<sup>36</sup> The CFO admits that the company had access to a number of positive NPV R&D projects, the return on which would be expected to exceed the return on investing funds in the pension plan. The desire to

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<sup>36</sup>Moreover, pension accounting standards allow firms to reduce pension expense by an amount equal to the contribution times a management-assumed *expected* rate of return even if the actual rate of return earned by the pension assets is lower than the assumed expected rate of return.

report a fully funded pension asset potentially pressured the firm into eliminating or postponing positive NPV investments.

- One CFO candidly admits that his/her company would defer or eliminate maintenance spending to meet earnings targets, even if such deferment would accelerate the need to replace the asset in the future. The CFO went on to illustrate that retrenching trained personnel might be economically sub-optimal in the long-run, but that his/her company has taken such actions to meet the earnings target. Similarly, another CFO mentioned that his/her firm would perform “band aid” maintenance for several years to protect earnings, even if a decision to take a hit to earnings and refurbish the plant all at once would have been NPV positive.
- Another example pertains to a company that would sell an internally developed patent to outsiders and recognize revenue or return to meet an earnings target, rather than develop the patent later in-house, even if the expected cash flows associated with in-house development exceed the sale proceeds of the patent.

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