MANAGERIAL CAREER CONCERNS AND EARNINGS FORECASTS

by

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A Dissertation Submitted to the Faculty of the

DEPARTMENT OF ACCOUNTING

In Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College

THE UNIVERSITY OF ARIZONA

2015

THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

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ACKNOWLEDGEMENTS

I am indebted to my dissertation committee members: Dan Dhaliwal (chair), Leslie Eldenburg, Monica Neamtiu, and Jayanthi Sunder. I would also like to thank Mark Trombley, Shyam Sunder, Mei Cheng, Paul Michas, Matthew Serfling, Scott Judd, James Brushwood, and workshop participants at the University of Arizona, University of Illinois-Chicago, University of Miami, University of Pittsburgh, University of Oregon, University of Utah, Boston College, University of Colorado-Boulder, University of British Columbia, University of Washington, Arizona State University and Georgia State University for helpful comments.

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

Using a novel setting, I examine the relation between a CEO's career concerns and the provision of an annual earnings forecast. Specifically, I exploit staggered changes in non-compete enforcement laws in three U.S. states as a source of exogenous variation in a CEO's career concerns. Consistent with theory suggesting that career concerns increase a manager's aversion to risk, I find that a CEO is less likely to issue an earnings forecast in periods of stricter non-compete enforcement. Further, cross-sectional analyses indicate that the lower probability of forecast issuance is more pronounced for a CEO who has greater concern for his reputation, faces more risk in forecasting, and is more vulnerable to dismissal.

1. Introduction

Since 1973, U.S. regulators have taken actions to encourage firms to disclose forward-looking information, including forecasts of future earnings.[1] Offering some perspective on the motivation behind these efforts, former Securities and Exchange Commission (SEC) Chairman Richard Breeden noted that "understanding a company's own assessment of its future potential would be among the most valuable information shareholders and potential investors could have about a firm".[2] This sentiment is consistently echoed by investors, but firms that issue earnings forecasts still remain the exception (Bozanic et al., 2013).[3] While prior research has largely sought to explain this disclosure choice by examining the costs and benefits to firms, more recent studies highlight the important role of a manager's incentives and characteristics (e.g., Nagar et al., 2003; Bamber et al., 2010). My paper extends this line of research by investigating how a manager's career concerns impact the provision of earnings forecasts.

Literature has long recognized that the labor market provides distinct and important incentives for a manager (e.g., Fama, 1980; Holmstrom, 1982, 1999). In particular, a manager who can establish a reputation of strong ability is more likely to attain higher and more secure future wages, while a manager judged

[1] As Cholakis (1999) notes, the Securities and Exchange Commission dropped its prohibition against earnings projections in public company filings in 1973 and has since passed regulation to protect companies from litigation associated with forward-looking disclosures. The latest of these provisions was included in the passage of the Private Securities Litigation Reform Act in 1995.

[2] See the "Hearing on Securities Litigation Reform Proposals: Sub-committee on Securities, Senate Committee on Banking, Housing, and Urban Affairs," April 6, 1995.

[3] Estimates of firms that issue earnings forecasts vary between studies and range from 10%-29%.

lacking in ability faces diminished career prospects. Thus, a natural concern for future wages (i.e., career concerns) motivates a manager to influence the labor market's perception of his ability, and theory suggests that this incentive can induce a manager to avoid activities that could reflect poor performance (Scharfstein and Stein, 1990).

While the labor market uses various metrics to assess a manager's ability, the disclosure of an earnings forecast is voluntary and exposes a manager to the risk of a loss in perceived ability. Specifically, a manager's decision to announce an expectation of future earnings conveys information that must be reported at the end of a period, and thereby creates a benchmark for actual earnings. Given the inherent uncertainty involved with estimates of future economic conditions, a forecast also signals a manager's knowledge of a firm's business environment and skill in adjusting operations (Trueman, 1986). Moreover, anecdotal and empirical evidence document that a manager is more likely to experience career benefits (costs) when his forecasts prove accurate (inaccurate) (Zamora, 2009; Lee et al., 2012), and theoretical work suggests that reputational concerns can, in turn, deter a manager from issuing voluntary disclosures (e.g., Nagar, 1999; Hermalin and Weisbach, 2007).[4] In this study, I empirically examine the relation between career concerns and the likelihood of an earnings forecast, exploiting a novel setting that provides an exogenous shock to a manager's career concerns.

Found in more than 75% of corporate executive employment contracts, a

[4] For instance, Chief Financial Officer (CFO) Wade Miquelon was replaced by Walgreens shortly after the firm announced a $1.1 billion reduction to its 2016 earnings forecast. The firm's Chief Executive Officer (CEO) explained that the firm had not "fully anticipated" increases in generic drug prices and the board of directors called prior forecasts "inadequate."

non-compete agreement prohibits a manager from working for, or starting, a competing firm for a specified period of time post-employment (Bishara et al., 2014).[5] Consequently, a manager who leaves his position or is fired will be less able to find employment in his industry and area of expertise. This restriction on a manager's labor mobility increases his cost of leaving his firm, and Garmaise (2011) finds that a non-compete agreement lowers a manager's future wages, suggesting that this result stems from lower competition in the labor market for a manager and/or lower manager productivity in a position where his skills are not best matched. Therefore, a non-compete agreement should increase a manager's career concerns and heighten his sensitivity to a potential loss in perceived ability, lowering his incentive to issue an earnings forecast.[6]

Importantly, legal enforcement of non-compete agreements varies significantly across states, and studies report that this variation influences the extent to which a non-compete agreement restricts an employee's labor market mobility (e.g., Gilson, 1999; Fleming, 2009). Exploiting this effect, I follow Garmaise (2011) and use a quasi-natural experiment created by changes in laws that govern the strength of the enforcement of non-compete agreements in three states over the 1992 to 2004 period. To the extent that these changes provide exogenous variation in non-compete enforceability, this setting helps alleviate endogeneity concerns and facilitates a clearer examination of a manager's

[5] Bishara et al. (2014) cite 1-2 years as the common duration.

[6] A firm typically compensates a manager for the additional risk imposed by a non-compete agreement by providing severance pay and/or golden parachutes (Cadman et al., 2011). To the extent that such contractual provisions mitigate the risk aversion stemming from a non-compete, my average results are downward biased.

decisions in response to constrained labor mobility.[7] Consistent with this notion, Garmaise (2011) finds that increased enforcement of non-compete agreements leads to longer CEO tenure, and Chen and Zhou (2013) document that a stricter enforcement environment increases a manager's attention on short-term earnings benchmarks.

To examine the relation between an increase in the enforcement of non-compete agreements and the provision of annual earnings forecasts, I use a difference-in-differences analysis and panel regression design. I control for firm and manager incentives shown to impact the decision to issue a forecast and include the interaction of industry and year fixed effects to control for transitory industry factors that could impact a manager's career concerns and the choice to forecast earnings in any particular year. Finally, I also control for time-invariant omitted state characteristics that differ across states, such as base levels of non-compete enforcement and legal business climates.

My results are consistent with the prediction that an increase in the enforcement of non-compete agreements leads to a lower likelihood of annual earnings forecasts. Specifically, I find evidence of an approximately 10% lower likelihood of annual earnings forecasts in high-enforcement periods. This finding suggests that a reduction in labor mobility increases a manager's sensitivity to the risks associated with forecasts, including the risk of an inaccurate projection of future earnings and a loss in perceived ability. Next, I validate the impact of an

[7] For example, one concern in using a manager-level non-compete agreement to study the effect of a manager's career concerns on the decision to forecast earnings is that unobserved factors, such as firm trade secrets, likely influence both a firm's decision to forecast and its use of non-compete agreements (Verrecchia, 2001; Samila and Sorenson, 2011).

increase in non-compete enforcement on a manager's incentives by exploiting variation in the proportion of a manager's in-state career opportunities. This test follows from Garmaise (2011), who reports that a state's jurisdiction is crucial to the enforcement of non-compete agreements. Thus, an increase in non-compete enforcement is particularly relevant to a manager who has a larger number of firms in his industry and area of expertise within the same state. Consistent with this notion, I find that stricter non-compete enforcement leads to a more pronounced negative effect on the probability of an annual earnings forecast when a manager is more likely to look for a job within his firm's state.

Having established the relation between an increase in the enforcement of non-compete agreements and the provision of annual earnings forecasts, I next conduct several cross-sectional tests that exploit settings in which a non-compete agreement should be more costly for a manager.[8] First, if increased enforceability of non-compete agreements causes a CEO to focus on the reputational risks associated with forecasts, there should be a more pronounced negative relation between non-compete enforcement and the likelihood of earnings forecasts when a CEO has greater concern for his reputation. Consistent with prior literature, I expect that career concerns are greater for a younger CEO who has a longer foreseeable career (e.g., Gibbons and Murphy, 1992; Holmstrom, 1999) and a lower-ability CEO who has fewer career opportunities and is more apt to err in forecasting (Baik et al., 2011). My results confirm this prediction and suggest that the effect of an increase in non-compete enforcement on the provision of annual

[8] I focus on the Chief Executive Officer (CEO) in these tests following prior literature that documents the CEO as especially influential in a firm's decision to provide guidance (e.g., Cheng and Lo, 2006; Brochet et al., 2011).

earnings forecasts is more pronounced for a CEO who has greater concern for his reputation.

Next, I examine cases in which a CEO faces greater risk in forecasting, focusing on those who work for firms with poor performance and more volatile earnings. First, a CEO will be particularly sensitive to reputational costs when forecasting poor performance (Kothari et al., 2009). Further, Waymire (1985) suggests that volatile firm earnings will incrementally increase the risk of a loss in reputation from forecasts. Consistent with these predictions, I find evidence of a more pronounced negative relation between an increase in the enforcement of non-compete agreements and the provision of annual earnings forecasts for firms that report a loss and those with greater earnings volatility. This result suggests that stricter enforcement of non-compete agreements is particularly relevant for a CEO who faces greater risk of a damaged reputation from forecasts.

Finally, I examine whether a CEO's sensitivity to an increase in the enforcement of non-compete agreements varies with a firm's governance structure. In particular, a CEO's concern about a potential loss in reputation associated with forecasts will be greater if the CEO is monitored by governance mechanisms that are more apt to punish poor performance. I test this prediction by capturing the monitoring and decision-making power of a firm's board of directors based on the inclusion of a CEO as Chairman and the proportion of a firm's institutional ownership. My results show that the effect of an increase in non-compete enforcement on the provision of annual earnings forecasts is more pronounced for a CEO who faces a higher risk of termination because of better

oversight.

My study contributes to the literature that examines the determinants of voluntary management forecasts. A large stream of research documents the benefits and costs that firms face when issuing forecasts, including cost of capital reductions, litigation risk, and proprietary costs (Verrecchia, 2001). More recently, however, studies have begun to examine how a manager's incentives and individual characteristics influence forecast properties (e.g., Aboody and Kasnik, 2000; Nagar et al., 2003; Bamber et al., 2010). I add to this line of literature by highlighting the importance of a manager's career concerns to a firm's voluntary disclosure policies. In particular, my finding that an increase in the enforcement of non-compete agreements influences the provision of earnings forecasts is consistent with survey evidence indicating that executives consider labor mobility when making financial reporting decisions (Graham et al., 2005). My study also provides evidence that a CEO exercises significant influence over firm voluntary disclosure policies, lending support to the findings of Cheng and Lo (2006) and Brochet et al. (2011).

Second, my study contributes to a better understanding of how career concerns influence a manager's decisions. Although literature recognizes that a manager's concern for his reputation in the labor market is an important incentive, studies traditionally rely on proxies such as age or tenure to capture these concerns. While these proxies are related to career concerns, they can also reflect attributes that independently affect a manager's appetite for risk (Malmendier and

Nagel, 2011).[9] In contrast, I exploit exogenous variation in state non-compete laws as a shock to a manager's career opportunities to more clearly examine how career concerns affect a manager's decisions. My finding that an increase in the enforcement of non-compete agreements leads to a lower likelihood of earnings forecast issuance is consistent with theory suggesting that career concerns motivate conservative behavior (Scharfstein and Stein, 1990; Holmstrom, 1999).

The remainder of this paper is organized as follows. Section 2 describes the institutional background of non-compete agreements and develops the hypothesis. Section 3 details the sample selection and research design. Section 4 reports the empirical findings. Section 5 details additional analyses, and Section 6 concludes.

2. Institutional Background and Hypothesis Development

2.1 Institutional Background

Given an executive's vast knowledge of a firm, it is not surprising that firms increasingly require corporate executives to sign non-compete contracts (Bishara et al., 2014). These agreements prohibit executives from joining or forming a competing firm for a specified period of time after the end of their employment relationship. Importantly, executive non-compete agreements typically apply to both voluntary and involuntary departures and generally are not limited to a geographic area or a list of specified competitors. Thus, in helping

[9] For example, Hambrick and Mason (1984) posit that older managers may be more vested in the status quo of the firm and/or are less able to grasp new ideas and learn new behaviors. In addition, a CEO's tenure is likely positively related to the quality of the CEO-firm match and/or a CEO's firm-specific knowledge of the firm, which are both factors that could independently affect a CEO's risk-taking.

employers protect business information and strategies, non-compete agreements explicitly constrain an executive's set of future career opportunities. The following is one example of a non-compete agreement from a Nike SEC filing:

> "During EMPLOYEE's employment by NIKE, under the terms of any employment contract or otherwise, and for one year thereafter, (the "Restriction Period"), EMPLOYEE will not directly or indirectly, own, manage, control, or participate in the ownership, engaged anywhere in the world in the athletic footwear, athletic apparel or sports equipment and accessories business, or any other business which directly competes with NIKE or any of its parent, subsidiaries or affiliated corporations ("Competitor"). *By way of illustration only*, examples of NIKE competitors include, but are not limited to: Adidas, FILA, Reebok, Puma, Champion, Oakley, DKNY, Converse, Asics, Saucony, New Balance, Ralph Lauren/Polo Sport, B.U.M, FUBU, The Gap, Tommy Hilfiger, Umbro, Northface, Venator (Foot lockers), Sports Authority, Columbia Sportswear, Wilson, Mizuno, Callaway Golf and Titleist."

While the use of non-compete agreements has increased in the U.S., the enforceability of such agreements is still evolving and varies significantly across states (Bishara, 2011). For instance, it is nearly impossible to enforce non-compete agreements in California and North Dakota, but states such as Massachusetts and Tennessee are more likely to require employees to prove the unreasonableness of non-compete agreements. Although states' positions on non-compete agreements have been largely static, three states significantly altered their enforcement of these agreements at different times over the 1992 and 2004 period (Garmaise, 2011). First, Texas made it more difficult to enforce non-compete agreements in 1994, including a requirement that the covenant not to compete be "ancillary to or part of an otherwise enforceable agreement." Second, Florida strengthened the rights of employers in non-compete enforcement in 1996

by implementing, among other stipulations, a presumption of injury to a firm when a non-compete agreement is violated. Finally, in 2001, Louisiana ruled that "employees could not be prohibited from joining a competing firm in which they held no equity interest." The state later retracted this ruling and thereby increased its enforcement of non-compete agreements in 2003.[10]

Exploiting these changes and an inadvertent shift in Michigan's treatment of non-compete agreements in 1985, a number of studies provide evidence that greater state enforcement amplifies the effects of non-compete agreements on employee mobility (e.g., Fleming, 2009; Fleming et al., 2014). In particular, Garmaise (2011) documents a positive association between enforcement of non-compete agreements and executive tenure, reporting that an executive subject to a non-compete agreement that is more likely to be enforced is less likely to move between firms in the same industry.[11] Studies also show that various corporate policies are impacted by an increase in the enforcement of non-compete agreements. For instance, Garmaise (2011) finds that increased enforcement leads to lower investments in research and development and capital expenditures, concluding that a reduction in labor mobility motivates a manager to invest less in their own human capital. Most related to my study is Chen and Zhou (2013), who argue that a manager's career concerns can motivate earnings manipulation. These authors find that increased enforcement of non-compete agreements is associated with a greater focus on short-term earnings benchmarks, but that a

[10] See Panel A in Appendix A for detailed descriptions of the law changes in Texas, Florida and Louisiana.

[11] This finding is consistent with Marx (2011) who reports that surveyed employees subject to non-compete agreements were more likely to leave their field of expertise for the duration specified in their agreements.

manager recognizes the varying reputational risks associated with the use of accruals vs. real transactions to manage earnings.

2.2 Hypothesis Development

Literature has long documented that career concerns are a key incentive for a manager (e.g. Fama, 1980; Holmstrom, 1999). Specifically, a manager who can establish a reputation of high ability is more likely rewarded with higher compensation and greater career opportunities. Since the labor market's perception of a manager's ability is largely determined by his current and past performance, career concerns arise because a manager recognizes that the current evaluations of his performance affect his future career opportunities. Consequently, a manager has an implicit incentive to be associated with outcomes that reflect positively on his ability, and studies show that this affects his tolerance for risk (e.g., Holmstrom, 1999; Milbourn et al., 2001).

Given the voluntary nature of management forecasts, a manager's incentives can significantly impact the provision of guidance. While these incentives align with those of shareholders to the extent that disclosures benefit a firm (through reduced costs of capital, litigation risk, for example), a manager uniquely bears the responsibility of issuing forecasts. In particular, management forecasts explicitly provide information about a firm's future operations and require a manager to anticipate and incorporate changes in economic conditions to a firm's operations. Hence, in choosing to release an earnings forecast, a manager not only signals his knowledge of the firm's business environment, but also creates a performance benchmark. This disclosure, in turn, allows capital and

labor markets to better monitor a manager, and Nagar (1999) theoretically shows that managers consider the implications of forecasts as a performance evaluation.[12]

Anecdotal and empirical evidence further document the use of forecasts as a measure of manager performance and highlight related consequences. For instance, in a survey by Graham et al. (2005), executives reveal that they incur career penalties for being seen as poor forecasters. This statement is consistent with Lee et al. (2012), who argue that boards of directors judge a manager's ability, in part, by his forecast accuracy because such portrays a manager's understanding of how changes in the economic environment affect the firm's product demand and cost structure. Lee et al. (2012) provide support for this argument by reporting that forecast inaccuracy is associated with a higher likelihood of CEO turnover. Correspondingly, Zamora (2009) posits that higher talent signaled through management forecasts can increase the value of a manager's human capital. This study documents that Chief Financial Officers experience compensation increases and upward career mobility from a record of forecast accuracy. In sum, because forecasts provide information about a firm's future operations and a manager is held accountable for the accuracy of such information, the choice to release a projection of future firm performance exposes a manager to greater scrutiny and the potential for related revisions in perceived ability.

[12] Consistent with this notion, Cassell et al. (2013) document that CEOs who are in their final years with a firm are more likely to issue forecasts and exercise opportunism in their forecasts. This finding suggests that the absence of a subsequent performance evaluation increases a CEO's preference for disclosure.

Applying these findings to my setting, I posit that an increase in the enforcement of non-compete agreements will influence a manager's incentives to issue an earnings forecasts. Specifically, I expect that an exogenous shock to a manager's future career opportunities will directly affect his concern for future wages. Prior literature suggests that this concern will induce conservative behavior as a manager will seek to limit the risk of a negative revision in the labor market's assessment of his ability (e.g., Scharfstein and Stein, 1990; Holmstrom, 1999). Further, because a firm's operations can be affected by economic forces that are unforeseeable and/or difficult to estimate, a manager also faces inherent risk in accurately projecting future earnings. Given this risk and the potential *ex post* career consequences, a manager's heightened concern for his reputation in periods of increased non-compete enforcement should lower his *ex ante* incentives to issue an earnings forecast. This expectation is stated formally below as my hypothesis:

H1: An increase in the enforcement of non-compete agreements is associated with a lower likelihood of earnings forecasts.

It is worth noting that an increase in the enforcement of non-compete agreements could instead motivate a manager to issue an earnings forecasts. This prediction follows from Prendergast and Stole (1996), who imply that career concerns can induce a manager to engage in more risky behavior in an attempt to signal his ability and expand his future career opportunities. Since a non-compete agreement explicitly restrains a manager's ability to move to his firm's competitors, an increase in the enforcement of non-compete agreements could

drive a manager to take actions that help him get noticed outside of his firm's industry. Consistent with the notion that forecasts can increase a manager's visibility, Hutton and Stocken (2009) show that forecast accuracy can lead to greater credibility with analysts and investors, and Yang (2012) reports that a reputation of accuracy in forecasting is linked to a specific manager. Thus, a manager facing reduced labor mobility from an increase in the enforcement of non-compete agreements could be more likely to issue earnings forecasts.

3. Data and Empirical Methodology

3.1 Sample Selection

Garmaise (2011) uses 12 questions to evaluate the level of non-compete enforcement in each state, granting each state 1 point when its laws are above specific thresholds. This process provides me with a rank of each state's enforceability of non-compete agreements from 1992 – 2004.[13] Thus, I begin with a sample of all firms that have financial data in Compustat over this period. I match each firm-year to its appropriate enforceability rank by using the state of headquarters as reported in a firm's SEC 10-K filings. As shown in Table 1, these ranks vary from 0 to 9, with higher ranks indicating stricter enforcement of non-compete agreements.

Next, I merge in executive compensation data from Execucomp, management earnings forecast and analyst data from the Institutional Brokers' Estimate System (IBES), stock return data from the Center for Research in

[13] Panel B of Appendix A outlines the 12 questions Garmaise used to rank the enforcement level of each state.

Security Prices (CRSP), and institutional ownership data from the Thompson-Reuters Institutional Holdings database. Using forecasts of annual earnings per share (EPS) denoted in U.S. dollars, I exclude forecasts announced after a firm's fiscal year-end as such often serve as preliminary earnings announcements (e.g., Skinner, 1997; Rogers and Stocken, 2005). Further, I follow prior literature and only include quantitative point and range earnings forecasts, removing firms that forecast in other ways from my sample (e.g., Baik et al., 2011; Lee et al., 2012).[14] After excluding utility (SIC 4900-4999) and financial (SIC 6000-6999) firms and firms with missing data, my final sample consists of 9,815 firm-year observations. All continuous variables are winsorized at their 1st and 99th percentiles to reduce the influence of outliers.

Table 1 outlines my sample by state. Of the 9,815 firm-year observations in my sample, 1,151 (11.7%) are located in Texas, Florida, or Louisiana and thus, form my treatment sample. Panel A in Table 2 presents the distribution of my sample by year. Since executive compensation and forecast data were not heavily populated in the early 1990s, the increase in the number of observations over my sample period is not surprising.

3.2 Empirical Methodology

To examine the relation between an increase in the enforcement of non-compete agreements and the provision of earnings forecasts at the firm-year level, I estimate the following OLS linear probability model:

[14] Given the scarcity of forecast data in the early years of my sample period and the finding in Chuk et al. (2013) that forecast databases are not comprehensive, I follow Li (2010) and require all firms in my sample to have analyst coverage.

$$Forecast_{it} = \alpha_1(IncreaseEnforce)_{its} + X_{it}\beta + \beta_r \times \beta_t + \beta s + \varepsilon_{it}$$

where *Forecast* is an indicator variable that is set to 1 if firm *i* issues an annual EPS forecast for year *t*.[15] As in Garmaise (2011), *IncreaseEnforce* takes the value of 1 for firms in Florida in the 1997 to 2004 period, -1 for firms in Texas in the 1995 to 2004 period and firms in Louisiana in the 2002 to 2003 period, and 0 for all other firm-years. X_{it} is a set of control variables, $\beta_r \times \beta_t$ are interactions of industry and year fixed effects, and β_s are state fixed effects. I include the interaction of industry and year fixed effects to control for transitory industry characteristics within a 2-digit SIC industry that could affect a state's enforcement of non-compete agreements and a firm's decision to forecast earnings in any particular year. The estimated standard errors in all regressions are corrected for heteroskedasticity and are clustered at the state level to correct for serial correlation within firms in a state.

The control variables, as detailed in Appendix B, include financial and executive compensation variables commonly found in models that estimate the likelihood of management earnings forecasts (e.g., Baik et al., 2011; Kwak et al., 2012, Lee et al., 2012). These variables include controls for a firm's information environment (e.g., size, market-to-book ratio, the natural logarithm of the number of analysts following a firm, leverage, issuance of new debt or equity), risk (e.g., litigation risk, research and development, earnings volatility, returns volatility) and performance (e.g., return on assets, earnings change). In addition, I control for

[15] Due to the large number of fixed effects included in my model specification, I use a linear probability model to avoid potentially biased and inconsistent coefficients and standard errors (Greene, 2004; Hanlon and Hoopes, 2014). I confirm that the results are robust when using a logistic model.

the presence of external monitors (institutional ownership) and a CEO's incentives to disclose information (the natural logarithm of a CEO's portfolio delta, the natural logarithm of a CEO's portfolio vega). Panel B in Table 2 reports descriptive statistics for the whole sample, while Panel C presents statistics for firms that issue earnings forecasts in comparison to firms that do not issue earnings forecasts. This panel indicates that in about 27% of observations, firms issued a management forecast of earnings. In addition, firms that issue forecasts are larger, experience better performance and lower volatility, and have higher institutional ownership.

4. Empirical Results

4.1 Increased Enforcement and Earnings Forecasts

I begin my empirical analyses by examining the relation between an increase in the enforcement of non-compete agreements and the likelihood of issuing an earnings forecast. Table 3 presents the results of this analysis. The dependent variable in all columns is an indicator variable that is set to 1 if a firm issues an annual EPS forecast in a given year, and zero otherwise. Columns 1-2 report the results from a base-line regression model that includes my variable of interest (*IncreaseEnforce*), the interaction of industry and year fixed effects, and state fixed effects. Columns 3-4 show the results from the regression model discussed in Section 3.2 that includes the full set of control variables.

Both models show a negative and statistically significant relation between an increase in the enforcement of non-compete agreements and the likelihood of

an earnings forecast. Specifically, the coefficient on *IncreaseEnforce* of -.027 (t-statistic = -2.29) suggests that the probability of issuing an annual earnings forecast decreases during high-enforceability periods. Given that approximately 27% of firms in my sample issue an annual earnings forecast, this finding translates into a 10% (=.027/.27) decrease in the probability of providing earnings guidance. In sum, these results are consistent with the prediction that stricter enforcement of non-compete agreements heightens a manager's concern about his future wages and leads to a greater incentive to avoid a potential loss in reputation from an inaccurate forecast.

Table 3 also reports that the estimated coefficients on the control variables are consistent with previous findings in the literature (e.g., Baik et al., 2011; Kwak et al., 2012, Lee et al., 2012). For instance, the likelihood of issuing an earnings forecast is positively related to the number of analysts following a firm, the percentage of institutional ownership, and presence in an industry prone to high litigation risk. Further, a firm with greater earnings and returns volatility, and greater research and development costs is less likely to issue an earnings forecast.

4.2 Increased Enforcement, State Jurisdiction and Earnings Forecasts

To further validate the effect of a state's enforcement of non-compete agreements on a manager's incentives to release an earnings forecast, I next examine whether an increase in the enforcement of non-compete agreements differentially affects a manager who has a larger proportion of future employment opportunities within the same state. While one of the primary objectives of non-compete agreements is to limit employees from moving to competitors, Garmaise

(2011) notes that a state's jurisdiction is crucial to the ability to enforce non-competes. In particular, Garmaise cites case evidence showing that state courts have a limited ability to enforce non-compete agreements when employees move to other states. Since a manager is more likely to pursue opportunities within his area of expertise and industry, the effect of a state's enforcement of non-compete agreements will be particularly relevant to a manager who works for a firm with a greater number of competitors within the same state. Thus, I expect that an increase in the enforcement of non-compete agreements will have a more pronounced effect on a manager who is more likely to look for a job within his firm's state.

To test this prediction, I follow Garmaise (2011) and estimate the proportion of in-state competition for each firm. Specifically, I estimate the fraction of total industry sales (excluding the firm itself) captured by the firm's in-state competitors (excluding the firm itself) as *In-State Industry Competition*. Table 4 presents the results of this analysis. The coefficient on *IncreaseEnforce* of .00 (t-statistic = .02) shows that there is no relation between an increase in non-compete enforceability and the likelihood of earnings forecasts when a manager is more likely to have a greater percentage of job opportunities outside his firm's state. However, the coefficient on the interaction term of -0.273 (t-statistic of -3.02) is statistically significant. This result suggests that the effect of an increase in non-compete enforceability coupled with high in-state industry competition leads to a significantly lower likelihood of providing annual earnings forecasts. Further, the joint significance of *IncreaseEnforce* and the interaction term is

statistically significant. Overall, this result confirms the impact of non-compete enforceability as such should be strongest within a state. This finding also suggests that stricter enforcement of non-compete agreements is particularly relevant to a manager who has a greater proportion of future career opportunities within his firm's state.

4.3 Cross-Sectional Tests of Increased Enforcement and Earnings Forecasts

The finding of a negative relation between an increase in the enforcement of non-compete agreements and the likelihood of an annual earnings forecast suggests that a manager who faces reduced future career opportunities is more likely to focus on the risks associated with forecasts. Specifically, this result implies that a manager is more likely to consider the risk of misestimating future firm performance and experiencing a negative revision in perceived ability. Given this finding, I next exploit settings that provide variation in the degree to which stricter enforcement of non-compete agreements will affect a manager's incentives to issue an earnings forecast. Specifically, I examine whether non-compete agreements are more costly for CEOs who: 1) have greater concern for their reputations, 2) face more risk in forecasting, and 3) are more vulnerable to dismissal.

4.3.1 The Effect of CEO Characteristics

Given the evidence suggesting that an increase in the enforcement of non-compete agreements heightens a manager's concern about the potential loss in reputation associated with forecasts, I next examine whether two personal characteristics of a CEO impact this relation. First, I examine how the age of a

CEO affects his sensitivity to stricter enforcement of non-compete agreements. Prior literature reports that a younger CEO has greater reason for concern about his perceived ability given a longer foreseeable career that stands to benefit or suffer (Gibbons and Murphy, 1992; Holmstrom, 1999). In turn, Chevalier and Ellison (1999) and Hong et al. (2000) report that this concern motivates a younger worker to avoid negative outcomes that could adversely affect his future career opportunities. Thus, if an increase in the enforcement of non-compete agreements causes a CEO to focus on the potential reputational costs related to forecasts, a younger CEO should be even less likely to issue an earnings forecast.

To test this prediction, I identify a CEO's age from Execucomp and create the indicator variable *LowCEOAge* that is set to 1 if a CEO's age is in the lowest quartile in my sample, and zero otherwise. The interaction of *LowCEOAge* and *IncreaseEnforce* captures the effect of an increase in non-compete enforceability for a CEO who is 50 years old or younger.[16] Columns 1-2 in Table 5 report the results of this test. The coefficient on *IncreaseEnforce* of -0.017 (t-statistic = -1.41) shows that an increase in the enforcement of non-compete agreements is not statistically related to the provision of annual earnings forecasts when a CEO is older than 50. However, the significant coefficient on the interaction term (-0.033, t-statistic = -1.74) suggests that a CEO who is 50 or younger and who experiences an increase in the enforcement of non-compete agreements is significantly less likely to issue an annual earnings forecast. I also test the joint

[16] The lowest CEO age quartile in my sample mirrors the lowest quartile of CEO ages represented in Execucomp.

significance of *IncreaseEnforce* and the interaction term and find that this coefficient remains statistically significant.

Second, I examine how the relation between an increase in the enforcement of non-compete agreements and the provision of earnings forecasts varies with a CEO's ability. Motivation for this test comes from Baik et al. (2011), who argue that CEOs use forecasts to signal their ability to anticipate and incorporate changes in economic conditions to their firm's operations. Further, Baik et al. (2011) find that high-ability CEOs are not only more likely to provide earnings forecasts, but also are more likely associated with accurate forecasts and greater capital market credibility. Considering a CEO's incentive to forecast based on his ability and the associated likelihood of forecast accuracy, a lower-ability CEO should find it especially costly to issue an earnings forecast after an increase in the enforcement of non-compete agreements. Specifically, given the higher potential for an inaccurate forecast and the fewer career opportunities available to a lower-ability CEO, this CEO is more likely to avoid the risk of a possible revision in his assessed human capital.

To test this prediction, I follow Baik et al. (2011) and adopt a measure of managerial ability developed by Demerjian et al. (2012).[17] I create the indicator variable *LowCEOAbility* that is set to 1 if a CEO is in the lowest quartile of managerial ability in my sample, and zero otherwise.[18] The interaction of

[17] This measure comes from a data envelope analysis (DEA) that isolates CEO-specific effects on a firm's efficiency. It has been shown to be positively associated with manager fixed-effects, stock price reactions to CEO turnovers, and financial reporting quality (Demerjian et al., 2013).

[18] The lowest CEO ability quartile in my sample is slightly higher than the lowest quartile of CEO ability represented in the population of CEO firm-years from Demerjian et al., 2012. This

LowCEOAbility and *IncreaseEnforce* capture the effect of an increase in non-compete enforceability for a CEO who has relatively lower ability. The results in Columns 3-4 in Table 5 show that the effect of an increase in non-compete enforceability is only present for a CEO who has lower ability (-0.077, t-statistic = -2.46). Overall, the findings in Table 5 are consistent with the notion that the effect of an increase in non-compete enforceability is more pronounced for a CEO with greater concern for his reputation, including one who is younger and of lower ability.

4.3.2 The Effect of Firm Characteristics

I next examine how the effect of an increase in non-compete agreements on the provision of earnings forecasts varies with a firm's performance and earnings volatility. Kothari et al. (2009) suggest that career concerns play an important role in a manager's decision to withhold bad news. Specifically, these authors argue that a manager will seek to avoid a loss in reputation associated with the disclosure of poor performance with the hope that subsequent events prove more favorable. If an increase in the enforcement of non-compete agreements causes a CEO to focus on the potential reputational costs related to forecasts, a CEO should find it more costly to issue a forecast predicting poor firm performance. Thus, a CEO who experiences an increase in the enforcement of non-compete agreements will be even less likely to issue an earnings forecast for a year when a firm reports a loss.

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difference is likely due to my smaller sample and bias toward larger firms, given the need for executive compensation and forecast data.

To test this prediction, I create the indicator variable *Loss* that is set to 1 if a firm's income before extraordinary items is less than zero, and zero otherwise. The interaction of *Loss* and *IncreaseEnforce* captures the effect of an increase in non-compete enforceability for loss firms. Columns 1-2 in Table 6 report the results of this test. The coefficient on *IncreaseEnforce* of -0.017 (t-statistic = -1.27) shows that an increase in the enforcement of non-compete agreements is not statistically related to the provision of earnings forecasts when a firm's income before extraordinary items is greater than zero. However, the interaction term suggests that a CEO who experiences an increase in the enforcement of non-compete agreements and who works for a firm that reports a loss is significantly less likely to issue an earnings forecast disclosing the bad performance (-0.072, t-statistic = -3.17). This finding is consistent with the notion that greater non-compete enforceability heightens a CEO's concern about his reputation, resulting in a lower incentive to forecast "bad news" and risk a loss in assessed human capital.

Second, I examine how the relation between an increase in the enforcement of non-compete agreements and the provision of earnings forecasts varies with a firm's earnings volatility. Motivation for this test comes from Waymire (1985), who argues that volatile earnings increase a manager's exposure to reputational costs associated with forecasts. Further, Waymire (1985) reports evidence consistent with this argument, finding a negative relation between earnings volatility and the frequency of management forecasts. Thus, a CEO who works for a firm that has volatile earnings should be especially sensitive to the

potential reputational loss related to forecasts. This argument leads to the prediction that the negative relation between an increase in the enforcement of non-compete agreements and the provision of earnings forecasts will be more pronounced for firms with more volatile earnings.

I test this prediction by interacting my main variable of interest, *IncreaseEnforce,* with the variable *EPS Volatility*. This variable is the standard deviation of a firm's earnings per share over the last three years. The interaction of *EPS Volatility* and *IncreaseEnforce* captures the effect of an increase in non-compete enforceability as earnings volatility increases. Columns 3-4 in Table 6 report the results of this test. The coefficient on *IncreaseEnforce* shows that an increase in the enforcement of non-compete agreements is not statistically related to the provision of earnings forecasts when a firm's earnings are not volatile (-0.018, t-statistic = -1.54). However, the coefficient on the interaction term of -0.010 (t-statistic = -1.71) suggests that a CEO who experiences an increase in the enforcement of non-compete agreements and who works for a firm that has greater volatility in earnings is significantly less likely to issue an earnings forecast. In sum, the findings in Table 6 are consistent with the notion that the effect of an increase in non-compete enforceability is more pronounced for a CEO with greater exposure to a reputational loss from forecasts, including those who work for firms that report a loss and have greater earnings volatility.

4.3.3 The Effect of Governance

In my last set of cross-sectional analyses, I examine whether the effect of an increase in the enforcement of non-compete agreements varies with a firm's

governance structure. In particular, I expect that a manager's concern about the potential loss in reputation associated with forecasts in a stricter enforcement regime should be greater when the manager is more vulnerable to dismissal. Prior literature suggests that a board of directors is more likely to respond to poor performance and dismiss a CEO when the CEO is not also Chairman of the Board (e.g., Adams et al., 2005). Thus, I predict that a CEO who does not hold both titles is more vulnerable to the consequences of a reputational loss and will be less likely to issue an earnings forecast in high-enforcement periods.

I test this prediction by creating the indicator variable *CEONotChair* that is set to 1 if a CEO does not also hold the Chairman of the Board position, and zero otherwise. The interaction of *CEONotChair* and *IncreaseEnforce* captures the effect of an increase in non-compete enforcement for a CEO with greater monitoring. Columns 1-2 in Table 7 report the results of this test. The coefficient of 0.014 (t-statistic = 1.06) on *IncreaseEnforce* shows that an increase in the enforcement of non-compete agreements is not statistically related to the provision of earnings forecasts when a CEO holds the Chair position. However, the interaction term suggests that a CEO who experiences an increase in the enforcement of non-compete agreements and who is not also the Chairman of the Board is significantly less likely to issue an earnings forecast (-0.108, t-statistic = -3.70). This finding is consistent with the notion that a CEO who is more likely to be terminated for an inaccurate forecast is especially concerned with the reputational risk associated with forecasts following an increase in non-compete enforceability.

Parrino et al. (2003) also provides evidence that highlights the role of institutional investors as external monitors. This study shows that by selling their shares to signal dissatisfaction with a firm's performance, institutional investors can significantly influence a board of directors' decision to terminate a manager. Thus, a CEO who works for a firm that has a greater fraction of institutional ownership should be more susceptible to dismissal due to performance. This leads to the prediction that the negative relation between an increase in the enforcement of non-compete agreements and the provision of forecasts will be more pronounced for firms with a larger institutional ownership stake.

To test this prediction, I interact my main variable of interest, *IncreaseEnforce*, with the variable *% of Institutional Ownership*, which is the fraction of the firm owned by institutional investors. This interaction term captures the effect of an increase in non-compete enforcement for a CEO who works for a firm with greater external monitoring. Columns 3-4 in Table 7 report the results of this test. The coefficient on *IncreaseEnforce* of 0.137 (t-statistic = 5.52) shows that an increase in the enforcement of non-compete agreements is positively related to the provision of earnings forecasts when a firm has no institutional ownership. However, the interaction term suggests that a CEO who experiences an increase in the enforcement of non-compete agreements and who also is vulnerable to greater oversight from institutional owners is significantly less likely to issue an earnings forecast (-0.232, t-statistic = -5.53). Overall, the findings in Table 7 suggest that the presence of stronger governance mechanisms

increases a CEO's concern about the reputational risks associated with forecasts in periods of stricter non-compete enforcement.

5. Additional Analyses

While my findings suggest that an increase in the enforcement of non-compete agreements leads to a lower likelihood of earnings forecasts, one potential concern is that I incorrectly identify whether firms issue earnings forecasts. Since this concern is particularly relevant to firm-year observations in the early 1990s, I restrict my sample to firm-years after 1993 and re-run my results. Columns 1-2 in Table 8 show that I still find evidence of a negative and statistically significant relation between an increase in the enforcement of non-compete agreements and the provision of earnings forecasts.

Next, a potential endogeneity concern is that my model suffers from an omitted variable that is correlated with both an increase in the enforcement of non-compete agreements and a firm's choice to issue an earnings forecast. Fleming et al. (2014) highlight the effect of changes in non-compete enforcement on merger and acquisition (M&A) likelihood, and studies have shown that M&A activity affects the provision of forecasts (Feng et al., 2009). Consequently, I control for a firm's merger and acquisition costs in a given year and find that my results remain the same (see Columns 3-4 in Table 8).

Finally, I add multiple state-specific variables to my model to address the concern that other characteristics of a state are driving both changes in non-compete enforcement laws and a firm's choice to issue an earnings forecast.

Specifically, I control for the number of firms in a state in any given year in Columns 5-6, and the percentage of Democrats representing a state in the House of Representatives along with the state's percentage change in Gross Domestic Product in Columns 7-8. My results show that the relation between an increase in the enforcement of non-compete agreements and the provision of earnings forecasts remains negative and statistically significant, providing further confidence that a state's treatment of non-compete agreements is affecting a manager's decision to issue forecasts.

6. Conclusion

Motivated by prior literature that suggests that career concerns will induce a manager to limit their exposure to the risk of a loss in perceived ability, I examine the effect of managerial career concerns on the decision to issue an earnings forecast. Specifically, in choosing to forecast, a manager accepts the task of anticipating and estimating how future economic conditions will affect his firm's operations. Further, the disclosure of expected firm earnings creates a performance benchmark that allows capital and labor markets greater ability to monitor and discipline a manager. Thus, I expect that a manager's career concerns and sensitivity to the potential for a loss in perceived ability will lead to a lower incentive to issue an earnings forecast.

Unlike prior studies, I capture managerial career concerns by focusing on the role of non-compete agreements in constraining a manager's future career opportunities. I exploit a quasi-natural experiment created by changes in non-

compete laws for three states over the 1992 to 2004 period. In sum, I find evidence consistent with the notion that a manager responds to constrained labor mobility by lowering his exposure to the risk of a loss in reputation from forecasts.

I also examine settings in which a non-compete agreement should be more costly to a manager. In particular, I examine whether the negative relation between an increase in the enforcement of non-compete agreements and the provision of earnings forecasts is more pronounced for a CEO who is especially: 1) concerned about his reputation, 2) prone to risk in forecasting, and 3) vulnerable to dismissal. My results support the prediction that non-compete agreements are especially relevant to a CEO who has a longer career that stands to suffer from a loss in reputation, and one who has fewer career opportunities. I also find that a CEO who faces greater risk in forecasting due to firm volatility and performance is less likely to forecast. Finally, a CEO who is vulnerable to a higher likelihood of dismissal appears to be more sensitive to the potential loss in reputation during high-enforcement periods.

Overall, my study contributes to the disclosure literature by providing new empirical evidence that managerial career concerns impact a firm's disclosure of future earnings. Further, I also contribute to an important debate in the literature studying career concerns. These studies offer conflicting predictions on the relation between a manager's career concerns and his risk-taking. Unlike prior work that relies on proxies, such as age or tenure, to capture a manager's career concerns, I use a novel setting to more clearly examine whether career concerns

motivate or discourage a manager from taking on risk. My finding that increased enforcement of non-compete agreements leads to a lower likelihood of earnings forecast issuance is consistent with studies that argue that career concerns will lead to a lower managerial preference for risk.

TABLE I

Non-Compete Enforceability Index

State	*Score*	*# of Obs*	*State*	*Score*	*# of Obs*
Alabama	5	64	Missouri	7	215
Alaska	3	6	Montana	2	2
Arizona	3	102	Nebraska	4	46
Arkansas	5	93	Nevada	5	50
California	0	1661	New Hampshire	2	30
Colorado	2	144	New Jersey	4	378
Connecticut	3	337	New Mexico	2	9
Delaware	6	32	New York	3	714
DC	7	27	North Carolina	4	136
Florida 1992-96	7	33	North Dakota	0	0
Florida 1997-2004	9	241	Ohio	5	527
Georgia	5	277	Oklahoma	1	67
Hawaii	3	12	Oregon	6	109
Idaho	6	51	Pennsylvania	6	523
Illinois	5	613	Rhode Island	3	44
Indiana	5	113	South Carolina	5	46
Iowa	6	63	South Dakota	5	10
Kansas	6	48	Tennessee	7	199
Kentucky	6	67	Texas 1992-94	5	78
Louisiana 1992-2001, 2004	4	46	Texas 1995-2004	3	735
Louisiana 2002-2003	0	18	Utah	6	40
Maine	4	12	Vermont	5	0
Maryland	5	104	Virginia	3	242
Massachusetts	6	450	Washington	5	146
Michigan	5	250	West Virginia	2	1
Minnesota	5	370	Wisconsin	3	212
Mississippi	4	22	Wyoming	4	0

This index of non-compete enforcement across U.S. states is from Garmaise (2011).

TABLE II

Descriptive Statistics

Panel A: Year Distribution

Year	Obs.	%
1992	160	1.6%
1993	423	4.3%
1994	489	5.0%
1995	527	5.4%
1996	567	5.8%
1997	637	6.5%
1998	834	8.5%
1999	914	9.3%
2000	936	9.5%
2001	956	9.7%
2002	1087	11.1%
2003	1124	11.5%
2004	1161	11.8%
Total	**9,815**	**100%**

Panel B: Summary Statistics for the Full Sample

Variable	N	Mean	Std Dev	25th Pctl	Median	75th Pctl
IncreaseEnforce	9815	-0.053	0.315	0	0	0
% of Institutional Ownership	9815	0.649	0.180	0.532	0.666	0.779
Log of Analyst Following	9815	2.149	0.824	1.655	2.260	2.767
LogCEODelta	9815	5.601	1.386	4.680	5.551	6.488
LogCEOVega	9815	4.312	1.370	3.440	4.334	5.237
Size	9815	7.390	1.501	6.298	7.225	8.327
MTB	9815	3.517	3.444	1.657	2.556	4.136
Loss	9815	0.159	0.366	0	0	0
EPS Volatility	9815	0.908	1.106	0.272	0.523	1.073
ROA	9815	0.056	0.103	0.022	0.060	0.104
R&D	9815	0.051	0.110	0	0.005	0.053
Leverage	9815	0.220	0.166	0.073	0.215	0.331
EPS Change	9815	0.002	1.689	-0.530	0.100	0.530
Return Volatility	9815	0.031	0.015	0.020	0.027	0.039
Litigation	9815	0.332	0.471	0	0	1
Issuance of Debt or Equity	9815	0.932	0.252	1	1	1

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

TABLE II (continued)

Descriptive Statistics

Panel C: Statistics by Forecasting vs. Non-Forecasting Firms

	Non-Forecasters (n=7,158)	**Forecasters (n=2,657)**	
Variable	**Mean**	**Mean**	**Difference**
IncreaseEnforce	-0.056	-0.043	*
% of Institutional Ownership	0.628	0.707	***
Log of Analyst Following	2.145	2.160	
LogCEODelta	5.501	5.871	***
LogCEOVega	4.133	4.792	***
Size	7.287	7.668	***
MTB	3.398	3.838	***
Loss	0.184	0.091	***
EPS Volatility	0.978	0.721	***
ROA	0.051	0.071	***
R&D	0.056	0.036	***
Leverage	0.218	0.224	*
EPS Change	0.011	-0.021	
Return Volatility	0.032	0.030	***
Litigation	0.329	0.340	
Issuance of Debt or Equity	0.930	0.939	

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

Table III

Non-Compete Enforcement and the Choice to Issue Earnings Forecasts

	Dependent Variable = Forecast			
	Coefficient	T-Statistic	Coefficient	T-Statistic
	(1)	(2)	(3)	(4)
IncreaseEnforce	-0.016*	-1.96	-0.027**	-2.29
% of Institutional Ownership			0.080*	1.95
Log of Analyst Following			0.045***	3.74
LogCEODelta			-0.019***	-2.70
LogCEOVega			0.024***	4.47
Size			0.003	0.35
MTB			0.004**	2.31
Loss			-0.097***	-5.27
EPS Volatility			-0.015***	-3.30
ROA			0.005	0.08
R&D			-0.157***	-2.70
Leverage			0.123***	3.12
EPS Change			-0.009***	-4.68
Return Volatility			-3.218***	-5.90
Litigation			0.038*	1.71
Issuance of Debt or Equity			-0.012	-0.74
N	9815		9815	
Adj. R-sq	0.189		0.240	
Industry * Year FE	Yes		Yes	
State FE	Yes		Yes	
Cluster by State	Yes		Yes	

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. Industry fixed effects are determined using 2 digit SIC codes.
*, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

Table IV

State Non-Compete Jurisdiction and the Choice to Issue Earnings Forecasts

	Dependent Variable = Forecast	
	Coefficient	T-Statistic
	(1)	(2)
IncreaseEnforce	0.000	0.02
IncreaseEnforce x In-State Industry Competition	-0.273***	-3.02
In-State Industry Competition	-0.136	-1.65
% of Institutional Ownership	0.081*	1.99
Log of Analyst Following	0.047***	3.88
LogCEODelta	-0.019***	-2.70
LogCEOVega	0.024***	4.48
Size	0.003	0.32
MTB	0.004**	2.28
Loss	-0.097***	-5.17
EPS Volatility	-0.014***	-3.15
ROA	0.002	0.03
R&D	-0.162***	-2.75
Leverage	0.117***	3.12
EPS Change	-0.009***	-4.76
Return Volatility	-3.169***	-5.96
Litigation	0.038*	1.72
Issuance of Debt or Equity	-0.012	-0.79
F-statistic (IncreaseEnforce +	Coefficient	F-Statistic
IncreaseEnforce x In-State Industry Competition)	-0.273***	9.99
N	9815	
Adj. R-sq	0.240	
Industry * Year FE	Yes	
State FE	Yes	
Cluster by State	Yes	

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. Industry fixed effects are determined using 2 digit SIC codes. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

Table V

CEO Characteristics and the Role of Career Concerns

	Dependent Variable = Forecast			
	Coefficient	T-Statistic	Coefficient	T-Statistic
	(1)	(2)	(3)	(4)
IncreaseEnforce	-0.017	-1.41	-0.013	-0.66
IncreaseEnforce x LowCEOAge	-0.033*	-1.74		
LowCEOAge	0.002	0.11		
IncreaseEnforce x LowCEOAbility			-0.077**	-2.46
LowCEOAbility			-0.029*	-1.94
% of Institutional Ownership	0.080*	1.97	0.077*	1.85
Log of Analyst Following	0.046***	3.81	0.046***	3.88
LogCEODelta	-0.019**	-2.60	-0.019***	-2.75
LogCEOVega	0.024***	4.51	0.023***	4.34
Size	0.003	0.33	0.003	0.39
MTB	0.004**	2.25	0.004**	2.27
Loss	-0.096***	-5.12	-0.097***	-5.25
EPS Volatility	-0.015***	-3.39	-0.015***	-3.39
ROA	0.008	0.13	-0.016	-0.25
R&D	-0.158***	-2.70	-0.157**	-2.63
Leverage	0.123***	3.12	0.119***	2.99
EPS Change	-0.009***	-4.68	-0.009***	-4.49
Return Volatility	-3.255***	-6.06	-3.226***	-5.83
Litigation	0.038*	1.74	0.031	1.28
Issuance of Debt or Equity	-0.011	-0.71	-0.012	-0.75
F-statistic (IncreaseEnforce +	Coefficient	F-Statistic	Coefficient	F-Statistic
IncreaseEnforce x Interaction Term)	-0.050***	7.51	-0.090***	23.43
N	9782		9798	
Adj. R-sq	0.239		0.240	
Industry * Year FE	Yes		Yes	
State FE	Yes		Yes	
Cluster by State	Yes		Yes	

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. Industry fixed effects are determined using 2 digit SIC codes.
*, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

Table VI

Firm Characteristics and the Role of Career Concerns

	Dependent Variable = Forecast			
	Coefficient	T-Statistic	Coefficient	T-Statistic
	(1)	(2)	(3)	(4)
IncreaseEnforce	-0.017	-1.27	-0.018	-1.54
IncreaseEnforce x Loss	-0.072***	-3.17		
IncreaseEnforce x EPSVol			-0.010*	-1.71
Loss	-0.102***	-6.01	-0.097***	-5.29
EPS Volatility	-0.015***	-3.33	-0.015***	-3.34
% of Institutional Ownership	0.080*	1.94	0.079*	1.95
Log of Analyst Following	0.046***	3.83	0.046***	3.76
LogCEODelta	-0.019***	-2.69	-0.019***	-2.70
LogCEOVega	0.024***	4.39	0.024***	4.43
Size	0.003	0.33	0.003	0.36
MTB	0.004**	2.33	0.004**	2.31
ROA	-0.000	-0.01	0.004	0.07
R&D	-0.156***	-2.69	-0.157***	-2.70
Leverage	0.122***	3.13	0.122***	3.12
EPS Change	-0.009***	-4.65	-0.009***	-4.69
Return Volatility	-3.224***	-5.93	-3.219***	-5.91
Litigation	0.038*	1.71	0.037*	1.70
Issuance of Debt or Equity	-0.011	-0.70	-0.012	-0.75
F-statistic (IncreaseEnforce +	Coefficient	F-Statistic	Coefficient	F-Statistic
IncreaseEnforce x Interaction Term)	-0.089***	32.26	-0.028**	5.02
N	9815		9815	
Adj. R-sq	0.240		0.240	
Industry * Year FE	Yes		Yes	
State FE	Yes		Yes	
Cluster by State	Yes		Yes	

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. Industry fixed effects are determined using 2 digit SIC codes.
*, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

Table VII

Governance Characteristics and the Role of Career Concerns

	Dependent Variable = Forecast			
	Coefficient	T-Statistic	Coefficient	T-Statistic
	(1)	(2)	(3)	(4)
IncreaseEnforce	0.014	1.06	0.137***	5.52
IncreaseEnforce x CEONotChair	-0.108***	-3.70		
CEONotChair	-0.049***	-4.49		
IncreaseEnforce x % of Institutional Ownership			-0.232***	-5.53
% of Institutional Ownership	0.074*	1.80	0.068**	2.03
Log of Analyst Following	0.043***	3.56	0.045***	3.57
LogCEODelta	-0.022***	-3.18	-0.019***	-2.75
LogCEOVega	0.023***	4.54	0.024***	4.68
Size	0.004	0.48	0.003	0.40
MTB	0.004**	2.40	0.004**	2.31
Loss	-0.097***	-5.08	-0.097***	-5.12
EPS Volatility	-0.015***	-3.26	-0.015***	-3.37
ROA	0.032	0.50	0.012	0.19
R&D	-0.142**	-2.37	-0.151**	-2.60
Leverage	0.117***	3.04	0.123***	3.08
EPS Change	-0.010***	-4.98	-0.009***	-4.69
Return Volatility	-3.131***	-5.52	-3.204***	-5.84
Litigation	0.041*	1.85	0.036*	1.70
Issuance of Debt or Equity	-0.012	-0.78	-0.012	-0.75
F-statistic (IncreaseEnforce +	Coefficient	F-Statistic	Coefficient	F-Statistic
IncreaseEnforce x Interaction Term)	-0.093***	18.75	-0.096***	20.07
N	9815		9815	
Adj. R-sq	0.243		0.240	
Industry * Year FE	Yes		Yes	
State FE	Yes		Yes	
Cluster by State	Yes		Yes	

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. Industry fixed effects are determined using 2 digit SIC codes. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

Table VIII

Robustness Tests

	Dependent Variable = Forecast							
	Coeff.	T-Stat	Coeff.	T-Stat	Coeff.	T-Stat	Coeff.	T-Stat
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IncreaseEnforce	-0.040**	-2.07	-0.026**	-2.13	-0.026**	-2.28	-0.025*	-1.88
% of IOwnership+	0.082*	1.94	0.077*	1.92	0.080*	1.96	0.080*	1.96
Log of Analyst Following	0.046***	3.65	0.045***	3.67	0.045***	3.71	0.046***	3.72
LogCEODelta	-0.021***	-2.83	-0.020***	-2.82	-0.019***	-2.70	-0.018**	-2.64
LogCEOVega	0.025***	4.61	0.024***	4.52	0.024***	4.48	0.023***	4.38
Size	0.005	0.56	0.002	0.29	0.003	0.36	0.003	0.39
MTB	0.004**	2.19	0.004**	2.49	0.004**	2.30	0.004**	2.30
Loss	-0.102***	-5.13	-0.093***	-4.92	-0.097***	-5.27	-0.097***	-5.23
EPS Volatility	-0.017***	-3.32	-0.014***	-3.11	-0.015***	-3.30	-0.014***	-3.29
ROA	0.006	0.10	0.021	0.34	0.004	0.06	0.008	0.13
R&D	-0.166***	-2.84	-0.149**	-2.61	-0.157***	-2.70	-0.155**	-2.66
Leverage	0.131***	3.17	0.112***	2.82	0.122***	3.12	0.122***	3.11
EPS Change	-0.010***	-4.67	-0.009***	-4.45	-0.009***	-4.65	-0.009***	-4.78
Return Volatility	-3.216***	-5.92	-3.123***	-5.76	-3.211***	-5.88	-3.163***	-5.79
Litigation	0.040*	1.74	0.037*	1.69	0.038*	1.70	0.036	1.64
Issuance of Debt/Equity+	-0.012	-0.75	-0.012	-0.77	-0.012	-0.74	-0.013	-0.84
Mergers & Acquisitions			0.034***	2.69				
# of Firms in State					-0.000	-0.59		
% of Democrats in House							-0.067	-1.32
% Change in GDP							0.086	0.42
N	9232		9815		9815		9788	
Adj. R-sq	0.228		0.241		0.240		0.239	
Industry * Year FE	Yes		Yes		Yes		Yes	
State FE	Yes		Yes		Yes		Yes	
Cluster by State	Yes		Yes		Yes		Yes	

All variables are defined in Appendix B and continuous variables are winsorized at the 1st and 99th percentiles. Industry fixed effects are determined using 2 digit SIC codes. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively, based on two-tailed tests.

+This variable was abbreviated for presentation purposes.

Appendix A: Non-Compete Enforceability

Panel A: Garmaise (2011) Description of State Non-Compete Enforcement Law Changes

Texas: In June 1994 in *Light v. Centel Cellular Co. of Tex.*, the Texas Supreme Court developed a new set of requirements that were needed for enforceability of noncompetition agreements. The ruling stated that a covenant not to compete must be "ancillary to or part of an otherwise enforceable agreement" between the employer and the employee. In other words, the employer must offer the employee some specific consideration in exchange for the noncompetition agreement, and continued at-will employment does not constitute acceptable consideration. Moreover, it must be that the covenant not to compete is designed to enforce the promises made by the employee as part of the agreement. This latter condition was a new requirement added by the court (Malsberger 2004), and it serves to make it substantially more difficult to enforce noncompetition agreements in Texas. The court also ruled that its interpretation of the law applied both retroactively to all agreements previously signed in Texas and prospectively to any future agreements.

Florida: In May 1996, the state legislature repealed the previous law governing covenants not to compete and replaced it with a new law. In addition to adding clarity to the rules governing noncompetition agreements, the new law strengthened employers' positions in three significant ways. First, the 1996 statue prohibits courts from considering the individual hardship that the noncompetition agreement will cause the former employee. This represents a dramatic change from the previous law that balanced the interests of the employer and the former employee (Malsberger 2004). Second, the 1996 law requires courts to modify geographic or time restrictions that are overbroad rather than simply declaring the covenant unenforceable. Prior law allowed for such modifications but did not require them. This change made it easier for employers to write highly restrictive covenants without fear of their being overturned in court. Third, under the new law, there is a presumption of injury to the firm when a noncompetition agreement is violated. This enhances the firm's powers to get an injunction preventing its former employee from working for another company (Gallo and Adler undated). The new law was specifically stated to apply only to contracts signed after July 1996—previous contracts are governed by the law in effect at the time they were signed.

Louisana: In June 2001, the Louisiana Supreme Court radically changed the enforcement of noncompetition agreements with its ruling in *SWAT 24 Shreveport Bossier, Inc. v. Bond*, 808 So. 2d 294 (La. 2001). The court ruled that Louisiana's statues on covenants not to compete only permitted contracts that restricted employees from setting up their own businesses in competition with a previous employer; employees could not be prohibited from joining a competing firm in which they held no equity interest. From the perspective of a manager of a large corporation, the *SWAT* ruling made noncompetition agreements significantly less enforceable in Louisiana; the relevant labor market opportunities for such a manager would typically lie with other large competitors. The ruling applied to all previous covenants not to compete. In 2003, the state legislature altered the law to permit noncompetition agreements barring employees from joining other firms in which they have no ownership interest.

Panel B: Garmaise (2011) Non-Compete Enforceability Rank

Question	Threshold
Is there a state statue of general application that governs the enforceability of covenants not to compete?	States that enforce noncompetition agreements outside a sale-of-business context receive a score of 1.
What is an employer's protectable interest and how is it defined?	States in which the employer can prevent the employee from future independent dealings with all the firm's customers, not merely with the customers with whom the employee had direct contact, receive a score of 1.
What must the plaintiff be able to show to prove the existence of an enforceable covenant not to compete?	Laws that place greater weight on the interests of the firm relative to those of the former employee are above the threshold.
Does the signing of a covenant not to compete at the inception of the employment relationship provide sufficient consideration to support the covenant?	States for which the answer to Question 4 is clearly "Yes" are above the threshold.
Will a change in the terms and conditions of employment provide sufficient consideration to support a covenant not to compete entered into after the employment relationship has begun?	States for which the answer to Question 5 is clearly "Yes" are above the threshold.
Will continued employment provide sufficient consideration to support a covenant not to compete entered into after the employment relationship has begun?	States for which the answer to Question 6 is clearly "Yes" are above the threshold.
What factors will the court consider in determining whether time and geographic restrictions in the covenant are reasonable?	Jurisdictions in which courts are instructed not to consider economic or other hardships faced by the employee are above the threshold.
Who has the burden of proving the reasonableness or unreasonableness of the covenant not to compete?	States in which the burden of proof is clearly placed on the employee are above the threshold.
What type of time or geographic restrictions has the court found to be reasonable? Unreasonable?	Jurisdictions in which 3-year statewide restrictions have been upheld receive a score of 1.
If the restrictions in the covenant not to compete are unenforceable because they are overbroad, are the courts permitted to modify the covenant to make the restrictions more narrow and to make the covenants enforceable?	States for which the answer to Question 10 is clearly "Yes" are above the threshold.
If the employer terminates the employment relationship, is the covenant enforceable?	States for which the answer to Question 11 is clearly "Yes" are above the threshold.
What damages may an employer recover and from whom for breach of a covenant not to compete?	If, in addition to lost profits, there is a potential for punitive damages against the former employee, the state receives a score of 1. States that explicitly exclude consideration of the reasonableness of the contract from the calculation of damages are also above the threshold.

Appendix B: Variable Descriptions

Variables of Interest	
Forecast	An indicator variable that is equal to 1 if a firm issues a point or range annual EPS forecast for year t, and zero otherwise
IncreaseEnforce	-1 if a state relaxed its non-compete enforcement laws in year t 0 if a state did not change its non-compete enforcement laws in year t 1 if a state implemented stricter non-compete enforcement laws in year t
Control Variables	
% of Institutional Ownership	Percentage of shares owned by institutions in year t
Log of Analyst Following	Natural logarithm of the number of analysts following a firm in year t
LogCEODelta	The CEO's total portfolio delta in year t, where delta is the dollar increase in wealth (in thousands) for a 1% increase in stock price
LogCEOVega	The CEO's total portfolio vega in year t, where vega is the dollar increase in option-wealth (in thousands) for a one percentage point increase in stock return volatility
Size	Natural logarithm of market value of equity in year t-1
MTB	Market to book value of equity ratio in year t-1
Loss	An indicator variable that is equal to 1 if income before extraordinary items is less than zero in year t, and zero otherwise
EPS Volatility	The standard deviation of EPS over t-1, t-2 and t-3
ROA	Income before extraordinary items in year t scaled by assets in year t-1
R&D	Research and development expenses scaled by sales in year t
Leverage	Leverage ratio, calculated as short-term debt plus long-term debt scaled by assets in year t
EPS Change	The change in EPS, calculated as EPS in year t minus EPS in year t-1
Return Volatility	The standard deviation of daily raw stock returns over the 250 trading days prior to the beginning of year t (requiring a minimum of 100 daily stock return observations to compute the standard deviation)
Litigation	An indicator variable that is equal to 1 if a firm is in a high litigation risk industry (as defined by Francis et al., 1994) in year t, and zero otherwise
Issuance of Debt or Equity	An indicator variable that is equal to 1 if a firm issued new debt or shares in year t+1, and zero otherwise
Cross-Sectional Variables	
In-State Industry Competition	The fraction of total SIC two-digit industry sales (excluding the firm itself) generated by in-state competitors in year t
LowCEOAge	An indicator variable that is equal to 1 if the CEO's age is in the sample bottom quartile, and zero otherwise
LowCEOAbility	An indicator variable that is equal to 1 if the Demerjian managerial ability score in year t is in the sample bottom quartile, and zero otherwise
CEONotChair	An indicator variable that is equal to 1 if the CEO is not also Board Chairman, and zero otherwise
Robustness Variables	
Mergers & Acquisitions	An indicator variable that is equal to 1 if a firm reported merger and acquisition expenses in year t, and zero otherwise.
# of Firms in State	The total number of Compustat firms in a given state in year t.
% of Democrats in House	The percentage of Democrats representing a state in the House of Representatives in year t.
% Change in GDP	The percentage change in state Gross Domestic Product (GDP) over t and t-1.

References

Aboody, D., Kasznik, R., 2000. CEO stock option awards and the timing of corporate voluntary disclosure. Journal of Accounting and Economics 29: 73–100.

Adams, R., Almeida, H., Ferreira, D., 2005. Powerful CEOs and their impact on corporate performance. Review of Financial Studies 18: 1403–1432.

Baik, B., Farber, D., Lee, S., 2011. CEO ability and management earnings forecasts. Contemporary Accounting Research 28: 1645-1668.

Bamber, L., Jiang, J., Wang, I., 2010. What's my style? The influence of top managers and their personal backgrounds on voluntary corporate financial disclosure. The Accounting Review 85: 1131–1162.

Bishara, N., 2011. Fifty ways to leave your employer: Relative enforcement of covenants not to compete, trends, and implications for employee mobility policy. University of Pennsylvania Journal of Business Law 13: 751-795.

Bishara, N., Martin, K., Thomas, R., 2014. An empirical analysis of non-competition clauses and other restrictive post-employment covenants. Vanderbilt Law and Economics Research Paper No. 14-11.

Bozanic, Z., Roulstone, D., Van Buskirk, A., 2013. Management earnings forecasts and forward-looking statements. Working Paper, The Ohio State University.

Brochet, F., Faurel, L., McVay, S., 2011. Manager-specific effects on earnings guidance: An analysis of top executive turnovers. Journal of Accounting Research 49: 1123-1162.

Cadman, B., Campbell, J., Klasa, S., 2011. Are ex-ante CEO severance pay contracts consistent with efficient contracting? Working paper, University of Utah.

Cassell, C., Huang, S., Sanchez, J., 2013. Forecasting without consequence? Evidence on the properties of retiring CEOs' forecasts of future earnings. The Accounting Review 88: 1909-1937.

Chen, T., Zhou, Y., 2013. The impact of non-compete provisions on earnings management activities: Evidence from a natural experiment. Working paper, Hong Kong University of Science and Technology.

Cheng, Q., Lo, K., 2006. Insider trading and voluntary disclosures. Journal of Accounting Research 44: 815–848.

Chevalier, J., Ellison, G., 1999. Career concerns of mutual fund managers. Quarterly Journal of Economics 114: 389-432.

Cholakis, P., 1999. Company disclosure of earnings projections: Should individual investors be allowed into the ball park? *Santa Clara Law Review* 39 (3).

Chuk, L., Matsumoto, D., Miller, G., 2013. Assessing methods of identifying management forecasts: CIG vs. hand-collection. Journal of Accounting and Economics 55:23-42.

Demerjian, P., Lev, B., McVay, S., 2012. Quantifying managerial ability: a new measure and validity tests. Management Science 58: 1229-1248.

Demerjian, P., Lev, B., Lewis, M., McVay, S., 2013. Managerial ability and earnings quality. The Accounting Review 88: 463-498.

Fama, E., 1980. Agency problems and the theory of the firm. Journal of Political Economy 88: 288-307.

Feng, M., Li, C., McVay, S., 2009. Internal control and management guidance. Journal of Accounting and Economics 48: 190-209.

Fleming, L., Marx, M., Strumsky, D., 2009. Mobility, skills, and the Michigan non-compete experiment. Management Science 55: 875-889.

Fleming, L., Tong, T., Younge, K., 2014. How anticipated employee mobility affects acquisition likelihood: Evidence from a natural experiment. Strategic Management Journal doi: 10.1002/smj.2237.

Francis, J., Philbrick, D., Schipper, K., 1994. Shareholder Litigation and Corporate Disclosures. Journal of Accounting Research 32: 137-164.

Garmaise, M., 2011. Ties that truly bind: noncompetition agreements, executive compensation, and firm investment. The Journal of Law, Economics, & Organization Vol. 27: 376-425.

Gibbons, R., Murphy, K., 1992. Optimal incentive contracts in the presence of career concerns: theory and evidence. Journal of Political Economy 100: 468-505.

Gilson, R., 1999. The legal infrastructure of high technology industrial distracts: Silicon Valley, Route 128, and covenants not to compete. New York University Law Review 74: 575-629.

Graham, J., Harvey, C., Rajgopal, S., 2005. The economic implications of corporate financial reporting. Journal of Accounting and Economics 40: 3-73.

Greene, W., 2004. The behavior of the maximum likelihood estimator of limited dependent variable models in the presence of fixed effects. Econometrics Journal 7: 98-119.

Hambrick, D., Mason, P., 1984. Upper echelons: the organization as a reflection of its top managers. Academy of Management Review 9: 193–206.

Hanlon, M., Hoopes, J. 2014. What do firms do when dividend tax rates change? An examination of alternative payout responses. Journal of Financial Economics 114: 105-124.

Hermalin, B., Weisbach, M., 2007. Transparency and corporate governance. NBER Working Paper Series 12875.

Holmstrom, B., 1982. Managerial incentive problems: A dynamic perspective. In Essays in Economics and Management in Honor of Lars Wahlbeck. Helsinki: Swedish School of Economics.

Holmstrom, B., 1999. Managerial incentive problems: a dynamic perspective. Review of Economic Studies 66: 169-182.

Hong, H., Kubik, J., Soloman, A., 2000. Security analysts' career concerns and herding of earnings forecasts. Rand Journal of Economics 31: 121-144.

Hutton, A., Stocken, P., 2009. Prior forecasting accuracy and investor reaction to management earnings forecasts. Working paper, Boston College.
Kothari, S.P., Shu, S., Wysocki, P., 2009. Do managers withhold bad news? Journal of Accounting Research 47: 241-276.

Kwak, B., Ro, B., Suk, I., 2012. The composition of top management with general counsel and voluntary information disclosure. Journal of Accounting and Economics 54: 19-41.

Lee, S., Matsunaga, S., Park, C., 2012. Management forecast accuracy and CEO turnover. The Accounting Review 87: 2095-2122.

Li, X., 2010. The impacts of product market competition on the quantity and quality of voluntary disclosures. Review of Accounting Studies 15: 663-711.

Marx, M., 2011. The firm strikes back: Non-compete agreements and the mobility of technical professions. American Sociological Review 76: 695-712.

Malmendier, U., Nagel, S., 2011. Depression babies: do macroeconomic experiences affect risk taking? Quarterly Journal of Economics 126: 373–416.

Milbourn, T., Shockley, R., Thakor, A., 2001. Managerial career concerns and investments in information. Rand Journal of Economics 32: 334-351.

Nagar, V., 1999. The role of the manager's human capital in discretionary disclosure. Journal of Accounting Research 37: 167-181.

Nagar, V., Nanda, D., Wysocki, P., 2003. Discretionary disclosure and stock-based incentives. Journal of Accounting and Economics 34: 283–309.

Parrino, R., Sias, R., Starks, L., 2003. Voting with their feet: institutional ownership changes around forced CEO turnover. Journal of Financial Economics 68: 3-46.

Prendergast, C., Stole, L., 1996. Impetuous youngsters and jaded old-timers: Acquiring a reputation for learning. Journal of Political Economy 104: 1106-1134.

Rogers, J., Stocken, P., 2005. Credibility of management forecasts. The Accounting Review 80: 1233–1260.

Samila, S., Sorenson, O., 2011. Noncompete covenants: incentives to innovate or impediments to growth. Management Science 57: 425-438.

Scharfstein, D., Stein, J., 1990. Herd behavior and investment. American Economic Review 80: 465–479.

Schwab, S., Thomas, R., 2006. An empirical analysis of CEO employment contracts: What do top executives bargain for? Washington and Lee Law Review 63: 231-270.

Skinner, D., 1997. Earnings disclosures and stockholder lawsuits. Journal of Accounting and Economics 23: 249–282.

Stuart, T., Sorenson, O., 2003. Liquidity events and the geographic distribution of entrepreneurial activity. Administrative Science Quarterly 48: 175-201.

Verrecchia, R., 2001. Essays on disclosure. Journal of Accounting and Economics 32: 97–180.

Waymire, G., 1985. Earnings volatility and voluntary management forecast disclosure. Journal of Accounting Research 23: 268–95.

Yang, H., 2012. Capital market consequences of managers' voluntary disclosure styles. Journal of Accounting and Economics 53: 167–184.

Zamora, V., 2009. Do managers benefit from superior forecasting? Working paper, Boston College.