MANAGERIAL REPUTATION AND NON-GAAP EARNINGS DISCLOSURES

by

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This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Mark Kohlbeck, School of Accounting, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the College of Business and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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ABSTRACT

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I examine how managerial reputation affects the quality of non-GAAP earnings disclosures and how the market reacts to non-GAAP earnings disclosures associated with managerial reputation. Although there was an initial dip in the frequency of non-GAAP earnings disclosures after SOX and Regulation G, the frequency of non-GAAP earnings disclosures has increased in recent years (Brown, Christensen, Elliott and Mergenthaler 2012). Motivated by the efficient contracting theory and managerial reputation incentives, I investigate whether reputable managers are associated with higher quality non-GAAP earnings disclosures. I also investigate whether the market is more responsive to non-GAAP earnings disclosed by reputable managers. Using empirical models modified from prior research, I find that reputable managers are less likely to disclose non-GAAP earnings, which is consistent with the efficient contracting explanation. I also find that reputable managers exclude more recurring items that are related to future operating earnings when they disclose non-GAAP earnings, which is consistent with the

rent extraction explanation in prior research. Finally, I find that managerial reputation has an incremental effect on the market reaction and that the market is more responsive to non-GAAP earnings disclosed by reputable managers if the unexpected earnings are positive. The study contributes to both non-GAAP earnings disclosures literature and managerial reputation incentives literature. It also has implications for investors, managers, and regulators.

DEDICATION

To Mom and Dad

MANAGERIAL REPUTATION AND NON-GAAP EARNINGS DISCLOSURES

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

Non-GAAP financial measures (GAAP is defined as Generally Accepted Accounting Principles), frequently called ‘‘pro forma’’ earnings, are performance measures voluntarily disclosed by managers.[1] These earnings performance measures are estimated by excluding nonrecurring items, such as asset impairments, amortization of intangibles, restructuring charges, mark-to-market charges and realized gains or losses on sales of assets. The Securities and Exchange Commission (SEC) requires firms to disclose the reconciliation of non-GAAP earnings to the relevant GAAP earnings if firms disclose non-GAAP earnings (SEC 2003). Research in this area focuses on the attributes of non-GAAP earnings disclosures, the strategies that managers use to disclose non-GAAP earnings and the value relevance of non-GAAP earnings information. However, research that examines managerial incentives behind disclosing non-GAAP earnings is limited.

It is important to understand managerial incentives of non-GAAP earnings disclosures because they determine whether and how managers disclose non-GAAP earnings. Specifically, managerial incentives might affect the attributes, the quality and the consequences of non-GAAP earnings disclosures. Therefore, I investigate how

[1] Generally, pro forma earnings refer to adjusted earnings metrics disclosed by managers in press releases, and Street earnings refer to adjusted earnings numbers disclosed by analyst forecast tracking services like I/B/E/S or First Call. The non-GAAP earnings measure is a more generic term and can refer to either source of adjusted earnings. I use Street earnings in this paper.

managerial reputation, a form of managerial incentive, affects managers' disclosure of non-GAAP earnings. In particular, I examine two major questions: how managerial reputation affects the quality of non-GAAP earnings disclosures and how the market responds to the non-GAAP earnings disclosure associated with managerial reputation.

Consistent with voluntary disclosure literature, I assume that managers have superior private information relative to outside investors about firms' current and expected future performance. Further, I assume that managers have the choice of whether to disclose such private information based on their self-serving incentives. When managers have strong incentives to mislead investors, their disclosures may be less credible. Therefore, managers' incentives can influence the quality of voluntary disclosures (Mercer 2004). As a voluntary disclosure, the quality of non-GAAP earnings might also be affected by managerial incentives, which results in two opposite opinions on the non-GAAP earnings disclosure: the information hypothesis and the opportunism hypothesis (Bradshaw and Sloan 2002). Although both hypotheses are examined by prior research, the quality of non-GAAP earnings reporting is inconclusive because the disclosure is discretionary and unaudited. To better understand the two different opinions and assess the quality of non-GAAP earnings disclosures, it is important to understand managerial incentives behind these disclosures.

Generally, managers' incentives include both an implicit incentive (reputation concern) and an explicit incentive (compensation concern). Although both managerial incentives are important, in this study I focus on the effect of the managerial reputation incentive on non-GAAP earnings disclosures, which has not been explored by prior studies. I develop and test three hypotheses.

First, I focus on how managerial reputation affects the likelihood and frequency of non-GAAP earnings disclosures. Given prior evidence that voluntary disclosures can reduce information asymmetry and the cost of capital (Francis, Handa, and Olsson 2008), reputable and well knowledgeable managers are more likely to actively disclose information about a firm's economic prospects in order to improve transparent information environments and avoid actions that result in high cost of capital for their firms. Therefore, if the non-GAAP earnings number is informative and value relevant, reputable managers are more likely to make more frequent non-GAAP earnings disclosures. However, prior research has documented that some items excluded by managers are recurring items, which have a negative relationship with future earnings (Doyle, Lundholm, and Soliman 2003; Kolev, Marquardt, and McVay 2008). Managers might use non-GAAP earnings to achieve their earnings benchmarks (Isidro and Marques 2009). Therefore, the non-GAAP earnings measure is perceived to be an earnings management tool. Based on the prior discussion, my first hypothesis is that managers with higher reputations are less likely to disclose non-GAAP earnings than are managers with lower reputations because of the reputation concern, which is consistent with efficient contracting theory.

Second, if reputable managers disclose non-GAAP earnings, they might be more likely to disclose high quality non-GAAP earnings. There are at least two reasons that reputable managers are less likely to opportunistically disclose non-GAAP earnings. First, reputable managers have more to lose in terms of their own future career opportunities (Francis, Huang, Rajgopal, and Zang 2008; Lee 2006; Desai, Hogan, and Wilkins 2006). Second, managerial reputation can also affect managers' compensation

when they are hired (Milbourn 2003). Thus, although managers have incentives to make opportunistic disclosures of non-GAAP earnings, managers' reputation concerns discourage this opportunistic behavior. In addition, the credibility of prior non-GAAP earnings disclosures can be validated in the subsequent period. Therefore, given the efficient contracting theory, I hypothesize that managers with higher reputations make higher quality non-GAAP earnings disclosures than do managers with lower reputations when they disclose non-GAAP earnings.

Third, market reaction to non-GAAP earnings disclosures is inconclusive in prior research. Some research provides evidence that non-GAAP earnings are value relevant and that the market positively reacts to non-GAAP earnings disclosures (Bradshaw and Sloan 2002). Other research finds that investors discount non-GAAP earnings information because of the credibility of the disclosures (Bhattacharya, Black, Christensen, and Mergenthaler 2004; Isidro and Marques 2009). If managerial reputation can enhance the credibility of non-GAAP earnings disclosures, investors can distinguish the quality of non-GAAP earnings through managerial reputation and they will have greater reactions to non-GAAP earnings disclosures associated with reputable managers. Therefore, my third hypothesis is that the market is more responsive to non-GAAP earnings disclosures associated with reputable managers.

I define managerial reputation as the recognition by other people of managers' characteristics or abilities (Francis et al. 2008). I use relative efficiency of decision making units (DMUs) (Demerjian, Lev and McVay 2012) and press citations to measure managerial reputation. To test my hypotheses, I obtain data about CEOs from the Execucomp database and a sample of non-GAAP earnings over the 1998 to 2011 periods

from I/B/E/S. I then regress the likelihood and frequency of non-GAAP earnings disclosures on managerial reputation. I predict and find that there is a negative relationship between managerial reputation and the likelihood and frequency of non-GAAP earnings disclosures, which suggests that the non-GAAP earnings measure might be a tool that managers use to manipulate reported earnings.

Next, I examine how managerial reputation affects the quality of non-GAAP earnings disclosures. I define the quality of non-GAAP earnings as the ability of non-GAAP earnings exclusions in the current period to predict future GAAP operating earnings (Doyle et al. 2003; Kolev et al. 2008). To test whether managerial reputation incentive can affect the quality of non-GAAP earnings disclosures, I regress one year ahead GAAP operating earnings on the interaction term between managerial reputation and non-GAAP exclusions. I find that non-GAAP exclusions are negatively related to future GAAP operating earnings, which is consistent with prior research (Kolev et al. 2008; Frankel, McVay, and Soliman 2011). I also find that the interaction term between managerial reputation and non-GAAP exclusions is negatively and significantly related to future GAAP operating earnings, which is consistent with the rent extraction perspective (Malmendier and Tate 2009) and suggests that managers with higher reputations exclude more recurring items that are related to the future operating earnings.

Finally, I regress three-day Cumulative Adjusted Returns (CARs) on the interaction term between managerial reputation and non-GAAP earnings surprises. I find that managerial reputation has an incremental effect and the market is more responsive to the unexpected earnings when the earnings surprise is positive. When the earnings surprise is negative, the market reacts to unexpected earnings negatively, which suggests

that the market perceives bad news to be more credible regardless of managerial reputation.

The study has several contributions. First, it contributes to the non-GAAP earnings disclosures literature by examining how the managerial reputation incentive affects managers' disclosures of non-GAAP earnings. Although there are many studies of non-GAAP earnings disclosures, there is limited research focusing on the managerial incentive to disclose non-GAAP earnings. Therefore, the study contributes to the managerial incentive of non-GAAP earnings disclosures literature by providing empirical evidence that the managerial reputation incentive is an important concern when managers disclose non-GAAP earnings.

Second, the study contributes to the non-GAAP earnings literature by showing how the managerial reputation incentive has differential effects on income-increasing (transitory gains) and income-decreasing (non-recurring expenses) non-GAAP adjustments. Most prior research only examines income-decreasing exclusion adjustments. An exception is a study by Curtis, McVay, and Whipple (2013), which examines the quality of transitory gains disclosures. Transitory gains decrease non-GAAP earnings. Even diligent managers might not want to make these additional disclosures since they will result in lower non-GAAP earnings. Therefore, the incentive for disclosing transitory gains is not clear. The study contributes to the literature by providing some evidence that reputable managers are more likely to disclose higher quality income-increasing non-GAAP earnings, which is consistent with the efficient contracting explanation in the reputation literature and the informative explanation in the non-GAAP earnings disclosure literature (Curtis et al. 2013).

Third, the study contributes to the voluntary disclosure literature in general. Although prior research documents that reputable managers are more likely to disclose more accurate management earnings forecasts (Baik, Farber, and Lee 2011), there are some differences between non-GAAP earnings and management forecasts disclosures. First, management forecasts focus on managers' predictability of future performance and non-GAAP disclosures focus on managers' ethical reporting behavior for current performance. They focus on different aspects of managers' reputations. Second, the SEC has different requirements for two types of disclosures and requires firms to reconcile non-GAAP earnings information if they disclose it. In addition, the credibility of management forecasts can be validated more easily than non-GAAP earnings because there is no uniform and accurate definition of non-recurring exclusion items. Therefore, reputation might have different effects on these two different types of voluntary disclosures. My study contributes to the voluntary disclosure literature by providing different empirical evidence to support both the efficient contracting perspective and the rent extraction perspective.

Finally, the study contributes to the market reaction to non-GAAP earnings literature by providing evidence that non-GAAP earnings is value relevant and that the market positively reacts to the unexpected information. The study also provides evidence that managerial reputation has an incremental effect on the market reaction when unexpected information is positive and it indicates that the market uses managerial reputation to assess the credibility of non-GAAP earnings disclosures.

The remainder of this paper is organized as follows. Chapter 2 reviews prior research about non-GAAP earnings disclosures and managerial reputation. Chapter 3

develops the hypotheses. Chapter 4 outlines the research design. Chapter 5 describes the data. Chapter 6 presents empirical results and discussions of the results. Chapter 7 summarizes the results, and then concludes.

CHAPTER 2: LITERATURE REVIEW

In this chapter I discuss research that is relevant to my study. First I review the literature on the value relevance of non-GAAP earnings disclosures, attributes of non-GAAP earnings disclosures and the effect of Regulation G on non-GAAP earnings disclosures. I then discuss and review literature on managerial reputation. Finally, I summarize the prior research and position my study.

2.1 Non-GAAP earnings disclosure literature review

Bradshaw and Sloan (2002) document that the divergence between GAAP and non-GAAP earnings first occurred in the early 1980s; and that the use of non-GAAP earnings increased sharply between 1986 and 1997. Proponents of non-GAAP earnings disclosures argue that the occurrence of non-GAAP earnings disclosures is because of the decline of the usefulness of GAAP earnings in the 1980s (Bradshaw and Sloan 2002). The non-GAAP earnings disclosure is a way to compensate for the lack of value-relevance of GAAP earnings. Managers can reduce information asymmetry by communicating their informed views of the extent to which components of GAAP earnings are transitory. Some studies provide evidence that non-GAAP earnings disclosures are informative and that the market reacts to the disclosed information (Brown and Sivakumar 2003; Lougee and Marquardt 2004; Entwistle, Feltham, and Mbagwu 2010).

Vincent (1999) provides the first large-sample investigation of non-GAAP

earnings adjustments using the real estate investment trusts (REITs) industry. She finds that funds from operations reported by REITs have incremental information content to GAAP earnings. Bradshaw and Sloan (2002), and Brown and Sivakumar (2003) use quarterly data from I/B/E/S to show that non-GAAP earnings provided by managers and analysts are more value relevant and that investors are more responsive to non-GAAP earnings relative to GAAP earnings. Bhattacharya, Black, Christensen, and Larson (2003) use pro forma earnings manually collected from press releases to examine the association between abnormal returns and pro forma earnings and they find similar results that pro forma earnings are more informative than GAAP earnings. Using a sample of quarterly pro forma earnings from press releases, Lougee and Marquardt (2004) find that firms with less informative GAAP earnings are more likely to disclose pro forma earnings than other firms and that the pro forma earnings have greater relative and incremental information content when GAAP earnings informativeness is low, which suggests that pro forma earnings are useful to investors.

Englmaier, Filipi, and Singh (2010) use different price and returns models to compare the value relevance of pro forma earnings, GAAP earnings, and Street earnings. They find that all three earnings measures are value relevant. In addition, they find that pro forma earnings are significantly more value relevant than Street earnings and GAAP earnings. Their results suggest that managers voluntarily disclose pro forma earnings to inform investors rather than to mislead them.

On the other hand, opponents argue that non-GAAP earnings is a tool that managers use to manipulate reported earnings to mislead investors. The items managers exclude are not non-recurring items and they have predictability for a firm's future

performance. Doyle et al. (2003) find that items excluded from GAAP earnings have the ability to predict future cash flows and returns, which suggests that the excluded expenses may be recurring items. Frankel et al. (2011) find a similar result when corporate governance is weak. Lougee and Marquardt (2004) find that firms that miss the earnings benchmark based on GAAP earnings are more likely to report pro forma earnings and, in this case, pro forma earnings are weakly and negatively correlated with future returns; which suggests that investors failed to incorporate negative information contained in the pro forma earnings when it was announced.

Second, prior studies provide evidence on the characteristics of firms that disclose non-GAAP earnings. These characteristics indicate that the firms have more incentives to manipulate reported earnings. One important characteristic is that the non-GAAP earnings from these firms are more likely to meet or beat earnings benchmarks while the GAAP earnings are more likely to miss earnings benchmarks (Bhattacharya et al. 2004; Isidro and Marques 2009). Marques (2010) finds that managers strategically give more prominence to non-GAAP earnings numbers than to GAAP earnings numbers when the GAAP earnings numbers fall short of a benchmark but the non-GAAP earnings numbers do not. Additionally, Bhattacharya et al. (2004) find that firms with non-GAAP earnings disclosures tend to be young firms concentrated in the technology and business services industries. They are less profitable, more liquid and have higher leverage ratios and book to market ratios than other firms in their own industries. Therefore, managers from these firms have more incentives to use different strategies to disclose non-GAAP earnings.

The managers are more likely to emphasize the non-GAAP earnings metric to portray better performance or disclose it for catering to investors' expectations. Bowen,

Davis, and Matsumoto (2005) use hand-collected data from press releases to examine factors associated with the emphasis level placed on pro forma earnings. They find that the market reaction to pro forma earnings surprises is greater when the level of emphasis placed on pro forma numbers is higher and that investors are affected by managers' emphasis on pro forma earnings. Brown, Christensen, and Elliott (2012) find that the manager's timing decision behavior of non-GAAP earnings disclosures and the manager's strategy to disclose pro forma earnings are based on investors' sentiment-driven expectations. Overall, these studies suggest that managers opportunistically disclose non-GAAP earnings to meet earnings benchmarks and mislead investors about firms' performance.

In order to constrain the managers' opportunistic disclosure of non-GAAP earnings, the SEC released Regulation G in March, 2003, which requires managers to reconcile non-GAAP earnings information to the relevant GAAP measures if firms disclose non-GAAP earnings. Some studies find that after Regulation G, the frequency and the magnitude of exclusions of pro forma earnings released in press releases are reduced. The incidence of using non-GAAP earnings to meet earnings benchmarks also has decreased and investors are less misled (Marques 2006; Entwistle, Feltham, and Mbagwu 2006; Yi 2006; Heflin and Hsu 2008).

However, Heflin and Hsu (2008) document that the majority of companies which disclosed non-GAAP earnings (59.12%) in the pre-Regulation G period did not change their disclosure policies in the post-Regulation G period, which is consistent with one stream of voluntary disclosure literature which concludes that once companies start voluntary disclosures, it is difficult for them to change the disclosure policy or stop

voluntary disclosures (Dye 1985 and Verrecchia 1983).

Kolev et al. (2008) find that in the post-Regulation G period, the quality of special items decreases after they decompose total exclusions into special items and other exclusions. There is a significant and negative relationship between special items and future operating income in the post-Regulation G period, which indicates that managers may have adapted to the SEC's new scrutiny and reconciliation rule and shifted more recurring items to special items. McVay (2006) also finds that managers strategically classify special items to beat or meet analysts' expectations. Heflin and Hsu (2008) find that although Regulation G reduced the frequency and the magnitude of non-GAAP earnings disclosures, it also reduced firms' willingness to use non-GAAP earnings to convey permanent earnings information. In addition, Brown, Christensen, Elliott, and Mergenthaler (2012) find that although there was an initial dip in the frequency of non-GAAP earnings disclosures after SOX and Regulation G, the frequency of non-GAAP earnings usage has increased in recent years. Therefore, it is important to understand managerial incentives to disclose non-GAAP earnings.

There are two studies that directly examine the managerial compensation incentive to disclose non-GAAP earnings. Isidro and Marques (2011) provide evidence that management compensation contracts linked to firm performance create incentives for managers to disclose non-GAAP earnings in their press releases. They find that managers with compensation linked to firm performance are more likely to disclose and emphasize non-GAAP earnings in press releases. Managers make more adjustments for recurring items to GAAP earnings when calculating non-GAAP earnings. Black, Black, Christensen, and Waegelein (2011) find that the design of compensation contracts can

significantly influence managers' pro forma earnings reporting decisions and that managers are less likely to opportunistically disclose pro forma earnings when compensation contracts include a long-term performance plan. They also find that investors discount non-GAAP earnings information when they find that opportunism is likely to motivate managers' pro forma earnings disclosures.

Bansal, Seetharaman, and Wang (2013) provide evidence of the role of managerial risk-taking incentives in the disclosure of non-GAAP earnings. They find that managers with high wealth to *stock volatility* sensitivity (risk-taking incentive) are more likely to make frequent non-GAAP earnings disclosures, while managers with high wealth to *stock price* sensitivity are less likely to make frequent non-GAAP earnings disclosures. They also find that managers making frequent disclosures have strong incentives to make good quality disclosures. In addition, they find that younger managers with risk-taking incentives are more likely to make good quality non-GAAP earnings disclosures. They argue that managerial reputation concerns, especially for younger managers who have more concerns about their reputations and future career opportunities, dominate managers' wealth incentives, which motivates them to disclose good quality non-GAAP earnings. However, they did not provide direct evidence about how managerial reputation affects managers' non-GAAP earnings disclosures choices. Therefore, I try to extend the study by examining how managerial reputation affects the quality of non-GAAP disclosures.

2.2 Managerial reputation literature review

Managerial reputation is the recognition or perception by other people of a manager's credibility, ability and other personal characteristics. It plays an important role

in affecting the survival and the success of a firm (Francis et al. 2008; Park and Berger, 2004). Because of information asymmetry between managers and shareholders, investors might use managerial reputation as an indicator of managers' ability to ensure the success of a firm and the credibility of information released by managers.

Managerial reputation has been the subject of many studies in the field of business. In the organizational theory literature, whether the characteristics of a manager are important for a firm's decision and performance is inconclusive. Finkelstein and Hambrick (1996) argue that because characteristics of top managers are complex and unpredictable, their personal characteristics and experiences can affect their business decisions. Hannan and Freeman (1977) argue that environmental factors of an organization, such as strong corporate governance, can constrain managerial behavior so that the impact of managerial choices on firm performance can be de-emphasized.

In the areas of finance and economics, studies focus on the relation between managerial reputation and the benefit it brings to firms and managers. Personal benefits might include the advantage of future career opportunities and compensation. The benefits to firms might include good operating performance, high stock returns, and a transparent information environment. Bertrand and Schoar (2003) find that management style is important to a wide range of corporate decisions including those involving operations, investments, and the financial activities of firms. Using a matched panel sample to track the top managers across different firms over time, they show that there is a specific pattern difference in the management style among managers regarding investment and financial decisions, which leads to different firm performance and managers' compensation.

Using press citations and awards reported by media, industry-adjusted returns on assets, adjusted stock returns, CEO tenure, and being appointed CEO from outside of the firm, Johnson, Young, and Welker (1993) provide a direct link between managerial reputation and firm performance. They find that there is a positive incremental association between the firm's performance and managerial reputation, which is consistent with the notion that accounting earnings convey information about managers' ability beyond that present in stock returns. Therefore, some companies link managerial reputation and the earnings performance measure when they compensate managers.

Karuna (2009) provides evidence that when managerial reputation is higher, firms place greater weights on the earnings-based measure to evaluate the performance of managers than when managerial reputation is lower. In addition, he finds a weak non-linear relation between managerial reputation and the use of a stock-based performance measure. Milbourn (2003) finds that managerial reputation measured by press citations is positively associated with stock-based pay sensitivities when controlling for CEO age, firm size, the variability of stock returns, and industry effects. Rajgopal, Shevlin, and Zamora (2006) also find that the sensitivity of CEO pay to systematic market-wide factors is an increasing function of CEO reputation even after controlling for the rent extraction explanation.

On the other hand, some studies find evidence of the rent extraction explanation. Malmendier and Tate (2009) find that CEOs who win awards underperform relative to their prior performance, and they also underperform relative to CEOs who do not win awards. Meanwhile, they extract more compensation by manipulating earnings to meet earnings benchmarks after they win awards. The effects are strongest in firms with weak

corporate governance. Their results suggest that there is a negative consequence for CEOs who win awards and become "superstars".

Regarding the potential economic value of managerial reputation, Lee (2006) uses awards received by CEOs to examine which potential economic value of managerial reputation is dominant. He finds that although reputable CEOs are able to sustain good performance of the firm, they cannot turn around poor performance. He suggests that managerial reputation can impair their job retention when managers perform poorly, which suggests that CEOs need to put in more effort to improve firm performance than they put in to promote their own images in the media. He also suggests that CEOs might be replaced when a firm suffers financially regardless of the CEOs' good reputations. Desai et al. (2006) find that the subsequent employment prospects of managers who are replaced because of GAAP violations are poorer than managers who are replaced for other reasons.

In the accounting research area, some studies focus on the role of managerial reputation in the financial reporting environment and find evidence that supports both the efficient contracting explanation and the rent extraction explanation. Baik, Farber, and Lee (2010) combine press citations, awards received, DMUs, and industry-adjusted ROA into an index to measure managerial reputation. They find that managerial reputation is negatively associated with financial reporting opacity, which suggests that CEOs act to protect their reputations by increasing the flow of information to the market. They also find that a firm's value increases with an increase in the reputation of the CEO, suggesting that investors perceive that CEOs with high reputations improve the information environment. Their results indicate that managerial reputation plays an

important role when firms have a weak corporate governance environment.

Using different proxies for the financial reporting environment, Koh (2011) finds that managerial reputation improves financial reporting quality by reporting economic losses in a more-timely manner after winning awards. Managers are less likely to engage in opportunistic earnings management to meet capital market expectations in the short-term, which is not consistent with the results from the Malmendier and Tate (2009) study. Agarwal et al. (2007) explain that the inconsistent result is because of the market model using a matched control sample in the Malmendier and Tate (2009) study. Koh (2011) also finds that managerial reputation has a positive impact on a firm's long-term performance.

On the other side, Francis et al. (2008) use press citations as a proxy for managerial reputation and provide evidence that managerial reputation negatively affects earnings quality, which is consistent with the rent extraction hypothesis. Then, using a simultaneous model, they find that the matching hypothesis explains the negative relationship between earnings quality and managerial reputation. They show that firms with poor earnings quality are more likely to hire new CEOs who are more reputable than the prior CEOs, suggesting that more reputable managers can improve the earnings quality. Demerjian, Lewis, Lev, and McVay (2013) use DMUs to proxy for managerial ability and find a positive relation between managerial ability and earnings quality, suggesting that capable managers are better able to estimate accruals and thus achieve a more precise measure of earnings.

Different from prior studies that examine the effect of managerial reputation on earnings quality, Baik et al. (2011) examine the effect of managerial ability on the

voluntary disclosure of management earnings forecasts. They find that managerial ability has a positive effect on managers' earnings forecasts. High ability CEOs are more likely to make more frequent and more accurate earnings forecasts and the market is more responsive to earnings forecasts associated with high ability CEOs. Their results suggest that management earnings forecasts contain information about CEO ability that is incremental to the earnings numbers contained in the forecasts.

In addition, prior studies find that other characteristics such as gender, age, tenure, and educational background affect managerial reputation and their behaviors in regard to firm performance. Gibbons and Murphy (1992) suggest that younger managers may put in more effort because of career concerns; while older managers close to retirement or without promotion opportunities may slack off due to the lack of horizon. Chevalier and Ellison (1999) investigate the effect of mutual fund managers' age and schooling on fund performance. They find that younger managers are more aggressive and earn higher rates of return. The probable reason is that younger managers have more concerns about their reputations and have strong desires to build their good reputations.

Garvey and Milbourn (2003) argue that younger executives and those with less firm-specific wealth cannot undo the filtering of market risks. Therefore, the sensitivity of their pay to market-wide factors will be smaller compared with older executives. Francis et al. (2008) indicate that younger CEOs issue more press releases than older CEOs. Bansal et al. (2013) suggest that younger managers with risk taking incentives are more likely to make more frequent and good quality non-GAAP earnings disclosures. Bertrand and Schoar (2003) find that younger generations are more likely to have attended business school, obtained an MBA degree and are more likely to use more

sophisticated valuation techniques. Therefore, the age of managers can affect their decision behavior and reputation establishment, which can cause them to disclose different quality non-GAAP earnings.

2.3 Summary of literature review

Prior research documents that the incurrence of non-GAAP earnings is because of the lack of predictability of GAAP earnings. In order to provide better quality information to predict future performance, some firms disclose non-GAAP earnings by excluding non-recurring items. Although some studies provide evidence that non-GAAP earnings is informative, others find that items excluded by managers are related to future performance and firms are more likely to use different strategies to disclose non-GAAP earnings to meet earnings benchmarks. Because non-GAAP earnings disclosure is discretionary and unaudited, it is difficult for investors to assess the credibility of the information. Therefore, the results about the market reaction to non-GAAP disclosures are mixed. In order to better assess the credibility of non-GAAP earnings information, it is important to understand managerial incentives behind these disclosures.

Managerial reputation, as one form of managerial incentive, can affect a company's information environment and the quality of voluntary disclosures, which is documented in prior research. However, these studies focus on general information environment, earnings quality, or management earnings forecasts. Non-GAAP earnings disclosure, as a voluntary disclosure, is different from mandatory disclosures or management earnings forecasts. There is no uniform definition for the non-GAAP earnings nor is there any standard measure to assess the quality of these disclosures. Whether managerial reputation has the same effect on the quality of non-GAAP earnings

as the effect it has on other financial information disclosures is an empirical question. Therefore, I try to extend prior research to examine how managerial reputation affects the quality of non-GAAP earnings disclosures.

CHAPTER 3: HYPOTHESES DEVELOPMENT

In this chapter, I develop my predictions for the effect of managerial reputation on non-GAAP earnings disclosures. I begin this chapter with a discussion of the efficient contracting theory and of managerial reputation incentive in the financial reporting environment, which leads to my first hypothesis related to the effect of managerial reputation on the decision to disclose non-GAAP earnings. I then predict the effect of managerial reputation on the quality of non-GAAP earnings disclosures. Finally, I develop my hypothesis on the market reaction to non-GAAP earnings disclosures associated with managerial reputation.

3.1 Hypothesis on the likelihood and frequency of non-GAAP earnings disclosures

Although agency theory recognizes the role of managerial discretion on firm decisions, it attributes firm decisions or firm characteristics to the firm's ability to mitigate managers' personal incentives (Jensen and Meckling 1976). The theory ignores the role of managers' personal characteristics on corporate practice and the effect of the labor market on a manager's behavior. Fama (1980) explains the importance of the role of the labor market and argues that managers in the firm face both discipline and opportunities provided by the labor market. Although the labor market initially might not know a manager's true ability, the market can update its belief about the manager's ability through the release of information related to the firm's current and past performance and therefore forms opinions about the manager's reputation. As more related performance

information is updated, the labor market can assess the manager's ability or reputation more precisely and accurately (Koh 2011).

Assuming the labor market is efficient, employers can rationally assess managers' abilities and reward reputable managers with higher compensation and penalize managers who have shirking intentions, shown by Wade, Porac, Pollock, and Graffin (2006) who find that award-winning CEOs receive an increase in their total compensation relative to other executives in the firm and that they face higher pay-performance sensitivities. MacLeod and Malcomson (1988) also argue that an employee's reputation serves to encourage employee discipline because reputation provides information to potential employers about the quality of the employee and poor performance can result in the loss of the employee's reputation.

Given the preceding arguments, the efficient contracting hypothesis predicts that reputable managers are more likely to align their actions with shareholders' interest to build and maintain their reputations because of the dual roles of the labor market (Koh 2011, Francis et al. 2008). And one way to achieve such alignment is to improve companies' information environment by providing more value relevant information. Managers have superior private information relative to outside shareholders about firms' current and expected future performance (information asymmetry). If managers disclose more private information, investors can have a more complete picture about a firm's performance and make a better decision on their investments. Baik et al. (2010) find that managerial reputation is negatively associated with companies' financial reporting asymmetry, which suggests that reputable managers try to build and maintain their reputations by increasing the flow of information to the market.

Moreover, given signaling theory, reputable managers have strong incentives to disclose their private information to distinguish themselves as superior decision-makers and build good reputations. Therefore, providing value relevant information can not only align managers with shareholders' interest, it can also signal managers' competence of predicting the future performance of companies, which leads shareholders and investors to update their beliefs about managers' reputations and reflect their beliefs on the firm's equity value. Trueman (1986) suggests that managers voluntarily disclose management earnings forecast information to signal their ability to anticipate changes in their firms' economic environment. Although managerial ability might not be observed directly, investors give credit to managerial ability by referring to the accuracy of managers' earnings forecasts. Overall, managers have incentives to provide more value relevant information to build and maintain their reputations. If non-GAAP earnings is value relevant and informative, reputable managers will be more likely to disclose the information to align their interest with shareholders and signal their abilities to build up their reputations.

However, some research finds that the non-GAAP earnings measure is a tool that managers use to manipulate reported earnings to achieve their performance benchmarks. For instance, managers try to meet earnings benchmarks by excluding from GAAP earnings the effect of some negative events that are likely to occur in the future (Doyle et al. 2003, Kolev et al. 2008). Managers strategically disclose non-GAAP earnings by emphasizing the non-GAAP earnings number (Marques 2010, Bowen et al. 2005) or disclose it catering to investors' expectations (Brown et al. 2012). In this case, given the dual roles of the labor market, managers with higher reputations are less likely to disclose

non-GAAP earnings since the opportunistic disclosure behavior can hurt their reputations once it is detected by the market. In the long run, the loss of reputation can affect their human capital in the labor market. Therefore, reputable managers are more likely to avoid any perceived opportunistic behavior.

I focus on the role of managerial reputation in the managers' decisions to disclose non-GAAP earnings (both likelihood and frequency). Given the efficient contracting theory and the opportunism perspective on the non-GAAP earnings disclosure documented in prior research I expect that reputable managers are less likely to disclose non-GAAP earnings. I formally state my first hypothesis as:

H1: There is a negative relationship between managerial reputation and the likelihood and frequency of non-GAAP earnings disclosures.

3.2 Hypothesis on the quality of non-GAAP earnings disclosures

Consistent with the first hypothesis, non-GAAP earnings could be perceived as an earnings management tool and reputable managers might be less likely to disclose non-GAAP earnings. However, if reputable managers do disclose non-GAAP earnings, the efficient contracting theory and dual roles of the labor market suggest that the managers have strong incentives to make these disclosures credible to build and maintain their reputations.

First, credible information signals managers' good reputations, helps current or potential employers update their beliefs about the managers and makes managers more competitive in the human capital market. If reputable managers opportunistically disclose poor quality non-GAAP earnings, they will have more to lose in terms of their own human capital. Francis et al. (2008) find that CEOs who report poor quality earnings are

more likely to be replaced with reputable CEOs. Desai et al. (2006) provide evidence that firms which are required to restate their financial statements due to GAAP violations experience a higher turnover of top managers. Moreover, because of the reputation damage, the subsequent employment prospects of the displaced managers of restatement firms are poorer than those of managers from other firms.

Managerial reputation can also affect managers' compensation. Milbourn (2003) provides initial evidence that reputable managers are provided with stronger stock-based compensation. Rajopal et al. (2006) suggest that the sensitivity of CEO pay to systematic market-wide factors is an increasing function of CEO reputations when they control for the rent extraction explanation. Therefore, reputable managers have more advantages regarding their career opportunities and compensation. These reputation concerns make managers less inclined to abuse their reputations for the pursuit of private benefits. On the contrary, the dual roles of the labor market motivate them to keep and maintain their reputations.

Graham, Harvey, and Rajgopal (2005) provide evidence that managers are motivated to develop their reputations for transparent and accurate voluntary disclosures. Koh (2011) finds evidence that reputable managers are more likely to engage in conservative accounting practices and are less likely to engage in opportunistic earnings management to meet short-term benchmarks. Baik et al. (2011) find that managers with higher ability release more accurate management earnings forecasts so as to signal their ability than do managers with lower ability. Demerjian et al. (2013) find that managerial ability positively affects the companies' earnings quality and their results suggest that capable managers are better able to estimate accruals and thus achieve a more precise

measure of earnings. Overall, these prior studies suggest that although managers have incentives to make opportunistic disclosures of non-GAAP earnings, managers' reputation concerns can discourage this opportunistic behavior. Moreover, managers have strong incentives to make credible and high quality financial information disclosures.

In addition, Mercer (2004) argues that although managers' disclosures might be less credible when managers have greater incentives to mislead investors, investors are more likely to rely on disclosures from more reputable managers. This suggests that prior credible disclosures can help managers build reputations, which incrementally benefits managers in the subsequent period. Therefore, reputation is an important concern when managers prepare financial reports and reputable managers are more likely to disclose credible non-GAAP earnings information to improve companies' information environments, signal their competence, and build their reputations.

Bansal et al. (2013) find that managers with high stock wealth risk-taking incentives are more likely to make frequent and high quality non-GAAP earnings disclosures because the reputation effect dominates the trade-off for risk-taking managers and they can benefit incrementally from a reputation for credible disclosures. However, no direct test is provided in their study. Therefore, I focus on the effect of managerial reputation on the quality of non-GAAP earnings disclosures and predict that reputable managers have stronger incentives to make their disclosures more credible so as to build and maintain their reputations. Formally stated:

H2: Managers with higher reputations make higher quality non-GAAP earnings disclosures than do managers with lower reputations.

3.3 Hypothesis on the market reaction to non-GAAP earnings disclosures

A means of assessing whether non-GAAP earnings contain useful information is to observe how the market responds to the release of non-GAAP earnings information. Because of information asymmetry and the credibility issue of the non-GAAP earnings information, investors have different responses to the release of non-GAAP earnings information. Prior research finds different results regarding the market response to non-GAAP earnings disclosures.

Bhattacharya et al. (2003) find that non-GAAP earnings disclosures are more informative and more permanent than GAAP earnings. Investors believe that non-GAAP earnings are more representative of core earnings than GAAP operating earnings. Bowen et al. (2005) find that the market is more responsive to the non-GAAP earnings surprise when non-GAAP earnings place emphasis on favorable performance. They suggest that managers use emphasis in the earnings press release as a disclosure tool to influence investors. Lougee and Marquardt (2004) indicate that investors find pro forma earnings to be useful when GAAP earnings informativeness is low or when strategic considerations are absent. Doyle et al. (2003) and Brown et al. (2012) find that some pro forma earnings disclosures are of relatively lower quality and are more predictive of lower future performance. Investors fail to fully understand the low quality of non-GAAP earnings disclosures because of managers' acceleration of the earnings press release (Brown et al. 2012).

However, Johnson and Schwartz (2005) suggest that although firms with pro forma earnings disclosures are priced higher than firms without such disclosures, the over pricing is not related to the pro forma earnings numbers. The result raises a question on

the opinion that investors are misled by pro forma earnings disclosures. Black et al. (2011) find that investors discount non-GAAP earnings information when opportunism is likely to motivate managers to disclose non-GAAP earnings. Allee, Bhattacharya, Black, and Christensen (2007) and Bhattacharya et al. (2007) suggest that the existence of non-GAAP earnings disclosures as well as their strategic placement in the press release generally only affect the judgment of less sophisticated investors.

Overall, the results about the market reaction to the non-GAAP earnings disclosure are mixed. If managerial reputation concerns discourage reputable managers from manipulating non-GAAP earnings information and enhance the credibility of non-GAAP earnings disclosures, the market should positively react to the non-GAAP earnings disclosed by reputable managers. This is consistent with the signaling theory that credible financial information signals a manager's reputation. It is also consistent with the argument by Mercer (2004) that investors rely on the voluntary disclosure from reputable managers. Therefore, I predict that the market responds more positively to non-GAAP earnings disclosures associated with reputable managers. Formally stated:

H3: The market is more responsive to non-GAAP earnings disclosed by managers with higher reputations than to non-GAAP earnings disclosed by managers with lower reputations.

3.4 Summary of hypotheses

In this chapter, I provide hypotheses for the effect of managerial reputation on the quality of non-GAAP earnings disclosures. I also provide a hypothesis for the market reaction to non-GAAP earnings disclosures associated with managerial reputation. Given the efficient contracting theory and the opportunism perspective on non-GAAP earnings

disclosure in the prior research, I predict that there is a negative relationship between managerial reputation and the decision to disclose non-GAAP earnings. I also predict that managerial reputation is positively related to the quality of non-GAAP earnings disclosures due to dual roles of the labor market. Finally, given signaling theory, managers disclose non-GAAP earnings to signal their abilities to predict future earnings. The information they disclose should reflect their ability. I predict that the market is more responsive to non-GAAP earnings disclosed by mangers with higher reputations. Finding support for these hypotheses suggests an effective monitoring role of the efficient contracting theory. Otherwise, the opportunistic or the rent extraction incentive may dominate the managerial reputation incentive.

CHAPTER 4: RESEARCH DESIGN

In this chapter, I present the research design for testing my hypotheses. I begin with a discussion and development of managerial reputation measures. I then describe empirical models used to test the hypotheses.

4.1 Managerial reputation measures

There is no uniform definition of managerial reputation. In this study, I follow Francis et al. (2008) and define managerial reputation as the recognition by other people of managers' characteristics or abilities. These characteristics or abilities are perceived by the market to play an important role in the survival and the success of a firm (Park and Berger, 2004). I use two different measures documented in prior research to proxy for managerial reputation. These two measures capture managers' reputations from different aspects.

The first proxy for managerial reputation is the relative efficiency of decision making units (DMUs), which is a performance-based measure of innate managerial reputation from Demerjian et al. (2012).[2] They use data envelope analysis (DEA) to create a measure of manager-specific efficiency. It is a statistical procedure used to evaluate the relative efficiency of decision making units and is defined as the ratio of outputs over inputs. DMUs convert certain inputs such as labor and capital into outputs (revenue, income, etc.). They separate the firms' characteristics and managers' abilities.

[2] Managerial ability data are obtained from Demerjian et al. (2012).

In their validity checks, Demerjian et al. (2012) find that this manager's ability measure is positively related to CEO pay, earnings growth and sales growth. Demerjan et al. (2013) find that this measure is positively related to the earnings quality, which indicates that this measure captures some dimension of managers' abilities and their impact on the estimate and disclosure of financial information.

To get the managerial ability measure, the first step is to derive the measure of firm efficiency. Then a Tobit regression of the firm efficiency level on the firm's characteristics is conducted to isolate CEO specific effects from effects of the firm's characteristics. The residual of the regression model is the measure of managerial ability. The regression model is as follows:

$$FE_i = \alpha + \beta_1 LNTA_i + \beta_2 MS_i + \beta_3 FCF_i + \beta_4 LNAGE_i + \beta_5 BSC_i + \beta_6 FORCURR_i + \varepsilon_i \quad (1)$$

FE	=	firm efficiency calculated as the ratio of output revenues over input costs of a firm by data envelop analysis;
LNTA	=	the natural log of total assets;
MS	=	market share calculated as the percentage of sales revenues earned by a firm within an industry in year t;
FCF	=	an indicator variable equal to 1 when a firm has non-negative free cash flows in year t, and 0 otherwise;
LNAGE	=	natural log of the number of years a firm has been listed on Compustat at the end of year t;
BSC	=	business segment concentration is the ratio of individual business segment sales to total sales, summed across all business segments for year t;
FORCURR	=	an indicator variable equal to 1 when a firm reports a non-zero value for Foreign Currency Adjustment in year t, and 0 otherwise.

The strength of this measure is that it captures a manager's ability by separating managers' characteristics and firms' characteristics. However, there might be a host of firm-specific characteristics that are not captured by the model, which makes the residual

value noisy as a result of measurement error. Therefore, I follow Demerjian et al. (2012) and cluster standard errors by firm and year and include year and industry fixed effects to mitigate the measurement error. Additionally, the manager's ability might not be observed directly by unsophisticated investors and therefore, the measure might not accurately capture unsophisticated investors' perceptions about the manager's ability.

The second proxy for managerial reputation is based on the number of press citations for a CEO during the calendar year. The rationale behind the measure is that a CEO who is perceived to be an expert or have a high reputation is more likely to be interviewed and cited than a CEO who is not considered to be an expert or who has a low reputation. Press citations likely reflect the market's assessment of a CEO's perceived ability or credibility. Although there is a possibility that CEOs with scandals are also more likely to be cited by the press, Francis et al. (2008) provide evidence that 99% of media coverage has a neutral to positive tone with respect to the CEO cited in their sample. Baik et al. (2011) also show that 94% of the articles in the press portray CEOs in neutral or positive tones. Their validation check suggests that the number of press citations is a reasonable proxy for the manager's reputation. In my sensitivity test, I exclude observations of CEOs with scandals and financial restatements during the CEO's term.

From prior research, alternative measures could be industry-adjusted returns on assets (ROA) and the reputation of management earnings forecasts. However, industry adjusted returns are correlated with earnings, which will bias the result. Therefore, industry adjusted ROA is not a good proxy for managerial reputation in this study. Regarding reputations of management earnings forecasts, the sample size is very small

(about 3,000 observations for the final sample) and will not be very effective for capturing the effect of managerial reputation in the model. Therefore, these two measures are not included in the study.

4.2 Empirical test of managerial reputation effect on the decision of non-GAAP disclosures

To investigate the effect of managerial reputation on managers' decisions to disclose non-GAAP earnings, I focus on how managerial reputation affects the likelihood and the frequency of non-GAAP earnings disclosures. I adopt and modify models from Brown et al. (2012) and Bansal et al. (2013) and estimate a logistic regression equation and an ordinal logistic regression equation as follows:

$$NONGAAPEXIST = \alpha_0 + \beta_1 REP + \beta_2 COMP + \beta_3 TENURE + \beta_4 EARVOL + \beta_5 POST + \beta_6 ACCR + \beta_7 SALES + \beta_8 SIZE + \beta_9 LEV + \beta_{10} LOSS + \beta_{11} AUD + \beta_{12} GOV + \beta_{13} MBE + \beta_{14} MTB + \beta_{15} LAGDISC + \varepsilon \quad (2)$$

$$NONGAAPFREQ = \alpha_0 + \beta_1 REP + \beta_2 COMP + \beta_3 TENURE + \beta_4 EARVOL + \beta_5 POST + \beta_6 ACCR + \beta_7 SALES + \beta_8 SIZE + \beta_9 LEV + \beta_{10} LOSS + \beta_{11} AUD + \beta_{12} GOV + \beta_{13} MBE + \beta_{14} MTB + \beta_{15} LAGDISC + \varepsilon \quad (3)$$

Where:

NONGAAP EXIST	=	an indicator variable equal to 1 if the quarterly non-GAAP exclusion is positive or negative, and 0 otherwise;
NONGAAP FREQ	=	the frequency of non-GAAP earnings disclosure measured as the number of quarters in a year where non-GAAP exclusions are non-zero;
REP	=	manager's reputation measurement as defined in section 4.1;
COMP	=	manager's total cash compensation measured as salary and bonus;
TENURE	=	managers' tenure measured as the number of years an executive served as CEO;
EARVOL	=	earnings volatility measured as the standard deviation of return on assets over at least six of the preceding eight quarters;

POST	=	an indicator variable equal to 1 if a firm year observation is in year 2002 and after, and 0 otherwise;
ACCR	=	accounting conservatism measured as the average total accruals scaled by total assets over a 6-year period, multiplied by negative one;
SALES	=	the percentage change in the sales revenue;
SIZE	=	the natural log of total assets;
LEV	=	the ratio of debt to total assets;
LOSS	=	an indicator variable equal to 1 if the company's current operating earnings is negative, and 0 otherwise;
AUD	=	an indicator variable equal to 1 if the company is audited by the Big 4, and 0 otherwise;
GOV	=	corporate governance measured as the percent of board members that are independent in the fiscal year;
MBE	=	an indicator variable equal to 1 if non-GAAP earnings meet or beat analysts' mean forecasts and GAAP operating earnings miss the benchmark, and 0 otherwise;
MTB	=	the ratio of market value of equity divided by book value of equity;
LAGDISC	=	an indicator variable equal to 1 if a company discloses non-GAAP earnings in the prior year, and 0 otherwise;

Following Bansal et al. (2013), Brown et al. (2012), and Isidro and Marques (2011), I use an indicator variable NONGAAPEXIST to capture managers' decisions to disclose non-GAAP earnings. It is equal to one if non-GAAP exclusions are positive or negative, and zero otherwise. The non-GAAP exclusions are calculated as the absolute value of the difference between non-GAAP earnings and GAAP earnings in the fiscal quarter. NONGAAPFREQ captures the frequency of non-GAAP earnings disclosures, which is measured as the number of quarters in a fiscal year where non-GAAP exclusions are non-zero. The value is from zero to four.

REP is the test variable measured by managerial ability scores or the number of press citations. I expect that the coefficient β_1 is negative because reputable managers are

more concerned about their reputations and are less likely to disclose any information that is perceived to be earnings management, consistent with H1.

I include managers' characteristics as control variables. Isidro and Marques (2011) find that managers' compensation contracts linked to firm performance create incentives for managers to disclose non-GAAP earnings in the press release. Bansal et al. (2013) indicate that managers' cash compensation is negatively related to the disclosure of non-GAAP earnings. Therefore, I include cash compensation (COMP) as a control variable to capture the explicit incentive that affects managers' disclosure of non-GAAP earnings. Consistent with Bansal et al. (2013), I expect the coefficient of cash compensation to be negative because managers with lower compensation have more motivation to disclose a higher earnings performance to extract more compensation.

TENURE captures the number of years an executive served as CEO in a company. Bansal et al. (2013) find a negative relationship between tenure and the disclosure of non-GAAP earnings because managers with a short tenure in a company have strong desire to disclose better earnings performance to build their reputations. Therefore, I expect that the coefficient of tenure is negative.

I include post-SOX to control for the effect of the regulatory environment on non-GAAP earnings disclosures. The coefficient of POST is expected to be negative as Heflin and Hsu (2008) find that Regulation G produced modest declines in the frequency and magnitude of non-GAAP earnings disclosures. However, the coefficient could be positive as Brown et al. (2012) document that the frequency of non-GAAP earnings disclosures actually tends to increase after Regulation G although there was an initial dip.

I also control for the characteristics of firms that can affect the disclosure of non-

GAAP earnings. EARVOL is included to control for a firm's earnings volatility because firms with high earnings volatility may have less earnings persistence and are more likely to make non-GAAP exclusions (Lougee and Marquardt 2004). Therefore, I expect the coefficient to be positive.

ACCR indicates average total accruals over a six-year period, multiplied by negative one, and represents the accounting conservatism of a firm. Total accruals are calculated as the difference between income before extraordinary items and operating cash flows. Jennings and Wang (2011) suggest that accounting conservatism is positively associated with the non-GAAP disclosure. Therefore, I include accruals as a control variable and expect it to be positive, consistent with Jennings and Wang (2011).

I include SALES to represent the percentage change of a company's sales growth. Prior research shows that high sales growth companies are more likely to disclose non-GAAP earnings because the value of the high sales growth firms is more difficult to assess and GAAP earnings might be less value relevant (Lougee and Marquardt 2004). Therefore, I expect the sign of this variable to be positive.

SIZE is the natural log of total assets to control for the size effect and is expected to be positive. LEV measures the level of debt within a firm and is expected to be positive as firms with higher leverage are more likely to disclose non-GAAP earnings (Lougee and Marquardt 2004).

LOSS is an indicator variable that equals one when GAAP operating earnings are negative. The coefficient of loss is expected to be positive because managers are motivated to disclose non-GAAP earnings when they have poor performance or when their GAAP earnings fail to achieve a benchmark (Lougee and Marquardt 2004; Heflin

and Hsu 2008).

GOV is the percent of board members that are independent in a company during the fiscal year. Frankel et al. (2011) and Jennings and Marques (2011) find that strong corporate governance is positively associated with the quality of non-GAAP earnings disclosures. Therefore, I include this variable to control for the corporate governance effect. I include Big Four auditors (AUD) as a control variable. I expect both GOV and AUD to be negative because Big Four firms and a company with strong corporate governance are more likely to constrain earnings manipulation behaviors.

MBE is an indicator variable to control for the effect of the meeting and beating earnings benchmarks incentive. Prior research finds that managers are more likely to make non-GAAP exclusion adjustments to meet earnings benchmarks when their GAAP earnings miss the benchmark (Black and Christensen 2009, and Isidro and Marques 2009). Therefore, I include MBE as a control variable and expect the coefficient to be positive.

I include market to book ratios (MTB) as a control variable because Bhattacharya et al. (2004) find that firms with higher book to market ratios are more likely to disclose non-GAAP earnings since their equities are undervalued. Therefore, I expect the coefficient to be negative.

Prior research documents that the disclosure policy in the prior period can affect the disclosure policy in the current period (Dye 1985; Verrecchia 1983). I include an indicator variable LAGDISC to control for the effect of past non-GAAP earnings disclosures and I expect the coefficient to be positive (Brown et al. 2012).

4.3 Empirical test of managerial reputation effect on the quality of non-GAAP disclosures

Investors can validate non-GAAP earnings quality based on the predictive ability of non-GAAP earnings exclusions in the subsequent period because transitory items excluded from GAAP earnings should not recur in future GAAP earnings (Doyle et al. 2003; Kolev et al. 2008). To test the extent to which the managerial reputation incentive affects the quality of non-GAAP earnings disclosures, I adopt and modify the model from Doyle et al. (2003) and Kolev et al. (2008) and regress one year ahead GAAP operating earnings on the interaction term between managerial reputation and the associated non-GAAP exclusions as follows:

$$OI_{t+1} = \alpha_0 + \beta_1 TOTALEXCL + \beta_2 REP + \beta_3 TOTALEXCL*REP + \beta_4 NONGAAPEARN + \beta_5 EARVOL + \beta_6 POST + \beta_7 ACCR + \beta_8 SALES + \beta_9 SIZE + \beta_{10} LEV + \beta_{11} LOSS + \beta_{12} AUD + \beta_{13} GOV + \beta_{14} MBE + \beta_{15} MTB + \varepsilon \quad (4)$$

Where:

OI	=	Earnings per share from operations in year t+1;
TOTALEXCL	=	total non-GAAP exclusions calculated as the absolute value of the difference between non-GAAP earnings and GAAP earnings in year t ;
NONGAAPEARN	=	non-GAAP earnings per share from the I/B/E/S database;

All other variables have been previously defined.

OI_{t+1} represents the earnings per share from operations one year ahead. Future GAAP earnings include expenses (such as special items) that are mechanically related to the non-GAAP exclusions in the current period and are not appropriate as a proxy for permanent earnings (Kolev et al. 2008; Frankel et al. 2011). Following Kolev et al. (2008), I use future operating earnings as a proxy for permanent earnings because future operating earnings excludes nonrecurring special items, but includes recurring items that

might be excluded by managers as non-recurring items.

The coefficient β_1 represents the quality of non-GAAP earnings exclusions (TOTALEXCL) and is expected to be negative, which suggests that non-GAAP exclusions are not perfectly transitory (Doyle et al. 2003; Kolev et al. 2008). The coefficient β_2 represents the effect of managerial reputation on a company's future performance and is expected to be positive since managers with higher reputations may achieve better performance for a company than do managers with lower reputations.

My main focus is β_3, the interaction term between non-GAAP exclusions and managerial reputation. If managerial reputation incentive can prevent managers from opportunistically disclosing non-GAAP earnings, then the incremental effect of managerial reputation should be positive. Therefore, I examine the interaction between managerial reputation and non-GAAP exclusions to shed light on H2 and expect the coefficient of interaction term β_3 to be positive, consistent with H2.

I include non-GAAP earnings (NONGAAPEARN) as a control variable and the expected coefficient β_4 should be positive because prior research shows that non-GAAP earnings is value relevant and investors use it to predict a firm's future operating earnings (Lougee and Marquardt 2004; Entwistle et al, 2010; Frankel et al. 2011; Kolev et al. 2008). I also include some other control variables that may affect both the quality of non-GAAP exclusions and future operating earnings.

I include earnings volatility (EARVOL) as a control variable because earnings variability during the current period can impact the future operating income. The coefficient β_5 is expected to be negative because high earnings variability may indicate poor earnings quality and poor operating performance in the future (Kolev et al. 2008).

I include POST as a control variable because prior research finds that the magnitude of exclusions decreased after SOX and Regulation G (Heflin and Hsu 2008). ACCR represents the accounting conservatism of a firm and the coefficient β_7 is expected to be positive because firms with more accounting conservatism are more likely to have better performance.

Following Kolev et al. (2008), I include SALES as a control variable because sales growth can affect the quality of non-GAAP exclusions. I expect the coefficient to be positive since growth firms should have good future performance. I include SIZE as a control variable to control for the size effect. I expect it to be positive since large companies are expected to have high future operating earnings.

I include LEV and LOSS as control variables and expect the coefficients of both variables to be negative as earnings from firms with a high leverage ratio and losses are less persistent. Such firms might have poor performance and low operating earnings in the future (Lougee and Marquardt 2004).

I include GOV and AUD as control variables. Frankel et al. (2011), Jennings and Marques (2011), and Entwistle, Feltham, and Mbagwu (2012) find that firms with stronger corporate governance and higher quality auditors are more likely to make credible non-GAAP earnings disclosures. Therefore, I add GOV and AUD to control for external factors that can affect the quality of non-GAAP earnings disclosures and future operating earnings.

I include MBE as a control variable because meeting or beating benchmarks is one incentive that causes managers to exclude recurring items from GAAP earnings. I expect it to be positive as firms that meet or beat performance benchmarks may have

good future performance. I also include market to book ratio and expect it to be positive since firms with high growth opportunities may have good future performance (Frankel et al. 2011; Kolev et al. 2008)

4.4 Empirical test of market reactions to non-GAAP earnings disclosures

In this section, I present the model to examine whether managerial reputation has an incremental effect on the credibility of non-GAAP earnings disclosures. Particularly, I test how the market responds to non-GAAP earnings disclosures associated with managerial reputation. I adopt and modify models from Doyle et al. (2003), Entwistle et al. (2012), Brown et al. (2012) and Heflin and Hsu (2008) to estimate the following regression:

$$\begin{aligned} CAR = {} & \alpha_0 + \beta_1 UE + \beta_2 TOTALEXCL + \beta_3 REP + \beta_4 NEWS + \beta_5 UE*REP*NEWS \\ & + \beta_6\, TOTALEXCL*REP*NEWS + \beta_7 EARVOL + \beta_8\, POST + \beta_9 SIZE \\ & + \beta_{10} LEV + \beta_{11} LOSS + \beta_{12} AUD + \beta_{13} GOV + \beta_{14} MBE + \beta_{15} MTB + \varepsilon \end{aligned} \quad (5)$$

Where:

CAR	=	size-adjusted abnormal returns cumulated over the three-day window surrounding the earnings announcement date;
UE	=	unexpected earnings calculated as the difference between non-GAAP earnings and the mean analysts' forecasts;
NEWS	=	an indicator variable equal to 1 if non-GAAP earnings are equal or greater than the mean analysts' forecasts, and 0 otherwise.

All other variables have been previously defined.

I follow Brown et al. (2012) to calculate the unexpected earnings as the difference between non-GAAP earnings and the mean analysts' forecasts prior to the earnings announcement during the 90 days preceding the earnings announcement scaled by stock price five days prior to the earnings announcement. The coefficient of UE (β_1) captures

the additional information that is included in the non-GAAP earnings announcement and is expected to be positive from prior research (Brown et al. 2012, Doyle et al. 2003). Following Brown et al. (2012) and Entwistle et al. (2012), I include TOTALEXCL and expect β_2 to be negative as investors may perceive exclusions to be opportunistic and negatively react to the earnings announcement. Managerial reputation is included and the coefficient (β_3) is expected to be positive as reputable managers are positively related to a firm's performance. Additionally, if managers' reputations signal a good quality of non-GAAP earnings disclosure, then the reputation should have an incremental effect on the market reaction. Therefore, I expect both interaction terms of β_5 and β_6 to be positive, consistent with H3. I also add NEWS as a control variable since good news and bad news may have different effects on the market returns and bad news is more credible than good news (Jennings 1987; Skinner 1994).

Following Heflin and Hsu (2008), I include a few control variables. I include EARVOL as a control variable because earnings volatility can affect the quality of non-GAAP exclusions. POST is included to capture the effect of SOX and Regulation G on the non-GAAP disclosure. I include SIZE to control for the size effect and the coefficient is expected to be negative because large companies have less risks and lower returns (Heflin and Hsu 2008).

I include LEV to control for the effect of leverage. The sign of LEV might be negative since high leverage ratios may have high default risks (Dhaliwal and Reynolds 1994). It could be positive because high risk is awarded with high returns (Heflin and Hsu 2008). LOSS is included and is expected to be negative since firms with losses have poor performance and negative market returns.

Following Entwistle et al. (2012), I include GOV and AUD as control variables. I expect the coefficients of both GOV and AUD to be positive because strong corporate governance and high quality auditors can enhance the credibility of non-GAAP earnings disclosures (Entwistle et al. 2012). I include MBE as a control variable because firms that meet or beat earnings benchmarks have good performance and high returns. MTB is included to control for a company's growth opportunities and risk. I expect the coefficient to be positive since firms with high growth opportunities usually have high risk and high abnormal returns (Entwistle et al. 2012).

CHAPTER 5: SAMPLE SELECTION AND DESCRIPTION

In this chapter, I describe the sample selection procedure used to generate my sample. Then I present and analyze descriptive statistics. Finally, I discuss the correlation between the variables used in the regression models.

5.1 Sample selection

Table 1 describes my sample selection procedure. I obtain quarterly earnings data over the 1998-2011 periods from the unadjusted detail *I/B/E/S* database, my source for non-GAAP earnings. I begin my sample in 1998 because pro forma earnings were not widely reported prior to 1998 (Black et al. 2011; Bhattacharya et al. 2004). The initial sample starts with 357,198 quarterly non-GAAP earnings observations over the 1997 to 2012 periods. The non-GAAP earnings data from 1997 are included for calculating non-GAAP disclosures in the prior year. I eliminate 59,621 quarterly observations that are missing GAAP earnings from *Compustat,* resulting in 297,577 firm-quarterly observations. I then sum quarterly earnings to obtain 83,382 firm-year observations.

(Insert Table 1)

I eliminate 13,235 firm-year observations when calculating the one year ahead operating earnings variable. I eliminate another 11,482 firm-year observations to calculate non-GAAP earnings disclosures in the prior year. To examine the effect of managerial reputation, I obtain CEO information from *Execucomp* and eliminate 37,377 firm-year observations missing from *Execucomp*. I exclude 4,361 observations from the

utilities industry (SIC codes 4900-4999) and the financial service industry (SIC codes 6000-6999).

To collect press citations, I first identify each CEO's name from the *Execucomp* database. Then I manually collect the number of articles containing the CEO's name from major U.S. and international newspapers and newswires each year from the LexisNexis database. When I search for the CEO's name, I use the CEO's full name, first and last name, shortened names or nicknames and affiliated company's name.

To obtain the managerial ability score measure, I eliminate another 508 observations missing required variables. I also eliminate observations without sufficient data from *Compustat* to calculate financial statement control variables (176) and from RiskMetric for the governance control variable (3,489). The final sample for quality of non-GAAP earnings hypotheses tests (equation 2, 3 and equation 4) includes 12,754 firm-year observations. The market reaction hypothesis requires market value data. I eliminate 825 firm-year observations missing from *CRSP*. The final sample for the market reaction hypothesis test (equation 5) includes 11,929 firm-year observations from 1,836 firms and 3,017 CEOs.

5.2 Descriptive Statistics

Table 2 presents the descriptive statistics for all variables. All continuous variables are winsorized at the 1% and 99% levels to mitigate the effect of outliers. If earnings per share is reported on the primary basis, I convert it to the diluted basis since all companies are required to report diluted earnings per share since 1998. Following Doyle et al. (2003) and Kolev et al. (2008), I scale the GAAPEARN, NONGAAPEARN, and TOTALEXCL variables by total assets per share. Therefore, the interpretation of

these variables is based on the one dollar scale.

(Insert Table 2)

Table 2 Panel A presents the summary statistics for all variables. In the sample, 74.4% of the 12,754 firm-year observations are non-GAAP earnings exclusions observations, with a frequency of 2.03 non-GAAP disclosures per year. The mean of NONGAAPEARN (6.40% of the asset per share) is higher than the mean of GAAPEARN (4.70% of the asset per share), indicating that managers, on average, make income-decreasing non-GAAP earnings adjustments.

Regarding managerial reputation variables, the mean (median) of MA_SCORE is 0.018 (0.006) and is highly skewed. To make the residual value of MA_SCORE more comparable within industries across time, I report my results using the decile rank of the managerial ability score by year and industry in my regression analysis. The mean (median) of PRESS is 24.66 (15.00), which are comparable with the numbers in Francis et al. (2008).

Table 2 Panel B presents the descriptive statistics of sample firms by NONGAAPEXIST. It shows that firms which disclose non-GAAP earnings have a statistically lower MA_SCORE, consistent with the first hypothesis. Contrary to the first hypothesis, firms that disclose non-GAAP earnings have higher managers' press citations. Regarding control variables, firms with non-GAAP disclosures have shorter CEO tenures and higher CEO compensation. These are larger firms with lower GAAP earnings, higher earnings volatility, higher leverage ratios, lower market to book value and they are more likely to have losses and miss earnings benchmarks. These characteristics are consistent with prior research related to non-GAAP earnings

disclosures. Additionally, firms with non-GAAP disclosures have lower cumulative abnormal returns than firms without non-GAAP earnings disclosures.

Figure 1 shows the annual mean value of MA_SCORE and PRESS for firms that report non-GAAP earnings exclusions and for firms that do not report such exclusions each year. The mean value of MA_SCORE for firms that disclose non-GAAP earnings is lower than the mean value for the other set of firms in all 14 years in the sample. This is consistent with the first hypothesis and indicates that managers with higher managerial ability are less likely to disclose non-GAAP earnings. However, the mean value of PRESS is higher for firms making non-GAAP disclosures than the mean value for the other set of firms in all 14 years, which is opposite to the first hypothesis.

(Insert Figure 1)

Table 3 presents Pearson (upper triangle) and Spearman (lower triangle) correlation coefficients for the variables. From the table, the correlation between MA_SCORE and NONGAAPEXIST is significantly negative (-0.087), which is consistent with the first hypothesis and indicates that managers with higher reputations are less likely to disclose non-GAAP earnings. The correlation between MA_SCORE and NONGAAPFREQ is also significantly negative (-0.081), suggesting that managers with higher reputations less frequently disclose non-GAAP earnings than do managers with lower reputations. The correlation between MA_SCORE and TOTALEXCL is significantly negative (-0.087), which suggests that managers with higher reputations make less adjustments than do managers with lower reputations.

(Insert Table 3)

The correlations between PRESS and all non-GAAP earnings disclosure variables

are positive, which is contrary to the hypothesis and suggests that reputable managers are more likely to disclose non-GAAP earnings and make more non-GAAP earnings adjustments. The result may not be surprising given different results from two prior studies with the two different measures. One study by Francis et al. (2008) uses the press citation measure to examine how managerial reputation affects earnings quality. They find a negative relationship between managerial reputation and earnings quality. Although their further analysis provides some support for the matching explanation that companies with poor earnings quality are more likely to hire reputable managers, the evidence is not strong since it is based on the acceptance of the null hypothesis. The other study by Demerjian et al. (2013) uses MA_SCORE to examine the effect of managerial ability on earnings quality. They find that MA_SCORE is positively related to earnings quality. However, their additional analysis shows that PRESS is negatively related to earnings quality. Additionally, their correlation statistic shows a significant and negative relationship between PRESS and MA_SCORE measures.

One possible explanation is that the press citations measure captures some size effect since CEOs from large firms are more likely to be exposed and cited by the media. The MA_SCORE measure does not have the same issue because this measure is generated from all available firms' data on Compustat. Additionally, Baik et al. (2011) use both measures to examine the effect of managerial ability on managers' earnings forecasts. They consistently find a positive relationship between managerial ability and the quality of earnings forecasts. However, their mean value of press citations is 202.78, which is much higher than the mean value of press citations in my study.

The correlation between TOTALEXCL and OI one year ahead is significantly

negative (-0.405), which is consistent with prior research and indicates that managers exclude some items that are related to future operating earnings to obtain higher non-GAAP earnings. The correlation between UE and CAR is significantly positive (0.266), suggesting that the market positively reacts to the non-GAAP earnings information.

All correlation values among the independent variables for each regression model are less than 0.400, indicating that multicollinearity is not expected to bias the results. I also compute the variance inflation factor (VIF) in regression models to test whether multicollinearity is serious among the independent variables and therefore biases the results. The VIF is less than 4 for all variables, suggesting there is no indication of multicollinearity bias for independent variables.

CHAPTER 6: EMPIRICAL RESULTS

In this chapter, I present and discuss empirical results for the three hypotheses. First, I present and analyze the main result of the effect of managerial reputation on the quality of non-GAAP earnings disclosures. Next, I report and discuss the incremental effect of managerial reputation on the market reaction to the non-GAAP earnings announcement. Finally, I conclude this section with sensitivity analyses to assess the robustness of the main findings. Because I use panel data, there might be time series and cross-sectional correlations in the error term, which could bias the results. Therefore, I include industry and year effects and cluster standard errors by firm in all regression models (Petersen, 2009).

6.1 The likelihood and frequency of non-GAAP earnings disclosures

Table 4 Panel A reports logistic regression results for the association between managerial reputation and the likelihood of non-GAAP earnings disclosures. According to H1, I expect that there is a negative relationship between managerial reputation and the likelihood of non-GAAP earnings disclosures. The negative relationship suggests that non-GAAP earnings disclosure is an earnings management tool and that managers with higher reputations are less likely to disclose non-GAAP earnings because of the reputation concern.

The regression results of the MA_SCORE measure in the first column support the hypothesis. The overall estimated logistic regression model is significant with the Max-

rescaled R^2 = 23.19 %. The coefficient of MA_SCORE is negative and significant (β_1 = -0.317, $p < 0.01$), suggesting that when MA_SCORE decreases by one rank, the odds of a firm disclosing non-GAAP earnings increase by 37.36%.

(Insert Table 4)

Regarding control variables, the signs of most control variables are consistent with the prediction. COMP is negatively related to the non-GAAP earnings disclosure (β_2 = -0.092, $p<0.10$), suggesting that managers with higher cash compensation are less likely to disclose non-GAAP earnings. TENURE is negatively and significantly associated with non-GAAP earnings disclosures (β_3= - 0.015, $p < 0.01$), suggesting that CEOs with longer tenures are less likely to disclose non-GAAP earnings. The coefficient of EARVOL is positive and significant (β_4 = 4.538, $p<0.01$), suggesting that firms with higher earnings volatility are more likely to disclose non-GAAP earnings. The coefficient of ACCR is positive and significant (β_6= 2.651, $p<0.01$), suggesting that firms with a conservative policy are more likely to disclose non-GAAP earnings. The coefficient of SALES is negative and significant (β_7=- 0.353, $p<0.01$), suggesting that firms with higher sales growth are less likely to disclose non-GAAP earnings. The coefficient of SIZE is positive and significant (β_8= 0.263, $p<0.01$), which indicates that large size firms are more likely to disclose non-GAAP earnings.

The coefficients of LEV (β_9 = 0.849, $p<0.01$) and LOSS (β_{10}=0.494, $p<0.01$) are positive and significant. The results suggest that firms with higher leverage ratios and GAAP losses are more likely to disclose non-GAAP earnings to make performance look better. The coefficients of AUD (β_{11}= 0.189, $p<0.05$) and GOV (β_{12}= 0.540, $p<0.01$) are positive and significant. The coefficient of MTB is negative and significant (β_{13} = -0.057,

p<0.01), indicating that firms with lower MTB are more likely to disclose non-GAAP earnings. The coefficient of LAGDISC is positive and significant, suggesting that firms disclose non-GAAP earnings in the prior year are more likely to disclose it in the current year.[3] No significant relationship is found for POST and MBE.

The regression results of the PRESS measure are presented in the second column of Panel A. The overall estimated logistic regression model is significant with the Max-rescaled R^2 = 23.74%. The coefficient of PRESS is negative, but not significant. The results of the control variables are consistent with the prediction. In addition, the coefficient of MBE is positive and significant, suggesting that firms are more likely to disclose non-GAAP earnings to meet benchmarks when the GAAP operating earnings miss the benchmark.

Table 4 Panel B reports ordinal logistic regression results for the association between managerial reputation and the frequency of non-GAAP earnings disclosures. According to H1, I expect that there is a negative significant relationship between managerial reputation and the frequency of non-GAAP earnings disclosures. The regression result of the MA_SCORE measure supports the hypothesis. The overall estimated logistic regression model is significant with the Max-rescaled R^2 = 26.63 %. The coefficient of MA_SCORE is negative and marginally significant (β_1= -0.180, p < 0.10), suggesting that when MA_SCORE decreases by one rank, the odds of a firm disclosing non-GAAP earnings increase by 19.62%.

Regarding control variables, the results of most control variables are consistent with the prediction. The coefficient of POST is positive and significant (β_5 = 0.216,

[3] The effect of non-GAAP disclosures in the prior year may be over controlled by including LAGDISC. I exclude LAGDISC and estimate the models again. All the results hold.

p<0.01), suggesting that companies make more frequent non-GAAP earnings disclosures although there was an initial dip after Regulation G.

The regression results of the PRESS measure are presented in the second column of Panel B. The overall estimated logistic regression model is significant with the Max-rescaled R^2 = 27.28%. The coefficient of PRESS is negative, but not significant. The results of the control variables are consistent with the prediction.

Overall, the results using the MA_SCORE measure for reputation in Table 4 support H1 and suggest that managers with higher reputations are less likely to disclose non-GAAP earnings. It also indicates that the non-GAAP earnings measure might be a tool that managers use to manipulate reported earnings to meet performance benchmarks. Managers with higher reputations are more concerned about their reputations and try to avoid any perceived opportunistic behavior.

6.2 The quality of non-GAAP earnings disclosures

The result of hypothesis 1 indicates that the non-GAAP earnings measure might be a tool that managers use to manipulate reported earnings to meet performance benchmarks. If so, there should be a negative relationship between non-GAAP exclusions and future operating earnings. To confirm the negative relationship between non-GAAP exclusions and future operating earnings documented in prior research (Kolev et al. 2008; and Brown et al. 2012), I first estimate a model similar to equation (4) without managerial reputation variables. The result (untabulated) is consistent with prior research with the coefficient of TOTALEXCL equal to -0.134, p<0.01, suggesting that some items excluded from GAAP earnings are recurring items. One dollar of non-GAAP exclusions in the current year is associated with 14 cents of expenses in the next year.

Table 5 reports main results for the association among managerial reputation, non-GAAP exclusions and future operating earnings. According to H2, I expect that reputable managers make higher quality non-GAAP earnings disclosures and that the items they exclude in the current period should be transitory and not related to future operating earnings.

The overall estimated regression model using the MA_SCORE measure in the first column is significant with the adjusted $R^2 = 55.32\%$. The coefficient of TOTALEXCL is negative and marginally significant, suggesting that excluded items are associated with future operating earnings. Managers exclude some recurring expense items that should not be excluded, consistent with the opportunistic perspective on non-GAAP earnings disclosures (Doyle et al. 2003; Kolev et al. 2008; and Brown et al. 2012). The coefficient of MA_SCORE is positive and significant ($\beta_2 = 0.008$, $p<0.01$), which suggests that managers with higher reputations achieve better earnings performance.

(Insert Table 5)

The coefficient of non-GAAP exclusions interacted with MA_SCORE is also negative and significant ($\beta_3 = - 0.151$, $p<0.05$), which is opposite to my prediction.[4]The result suggests that although reputable managers are less likely to disclose non-GAAP earnings, when they disclose non-GAAP earnings, the total negative effect is significant ($\beta_1 + \beta_3=0$, F test: p-value < 0.001).

Regarding control variables, most results are consistent with the prediction. The coefficient of NONGAAP earnings is positive and significant ($\beta_4= 0.702$, $p<0.01$), suggesting that non-GAAP earnings is value relevant and one dollar of non-GAAP

[4] I re-estimate the models by including the sign of total exclusions. The results are consistent with the main findings.

earnings in the current period is associated with 70 cents of future operating earnings. Earnings volatility is negatively related to the future operating income (β_5= - 0.148 $p<0.01$), suggesting that companies with higher earnings volatility have poor performance in the next year. ACCR and SIZE are positively and significantly related to the future operating income, indicating that large companies and companies with a conservative policy achieve better future performance.

The coefficient of SALES is significant and negative (β_8= - 0.019, $p<0.01$), which is contrary to my prediction, but is consistent with Bansal et al. (2013). The coefficient of loss is negative and significant, suggesting that firms with losses have poor performance in the future.

MBE is positively and significantly related to the future operating income, suggesting that firms meeting or beating analysts' forecasts are more likely to have good performance. The coefficient of MTB is positively and significantly related to the future operating income, indicating that firms with growth opportunities have good performance in the future.

For the PRESS measure, the overall estimated regression model is significant with the adjusted R^2 = 57.00%. The coefficient of TOTALEXCL is negative and significant (β_1= -0.120, $p<0.01$), which is consistent with prior research. However, for the interaction between PRESS and TOTALEXCL, no significant relationship is found. For the control variables, the results are consistent with the prediction.

Overall, the main result is contrary to my prediction and managers with higher reputations exclude more recurring items that are related to future earnings to meet performance benchmarks. The results are consistent with the rent extraction hypothesis

and consistent with Malmendier and Tate (2009) that reputable managers may have more pressure to keep expected good performance. To maintain their reputations, they may manipulate financial information to meet earnings benchmarks. Another reason might be that managers' wealth incentives dominate their reputation incentives. For the additional test, I include the compensation variable interacted with the non-GAAP exclusions and estimate the model again. The coefficient of interaction between non-GAAP exclusions and compensation is marginally significant of -0.050 ($p<0.10$). However, the total net effect is not significant. Therefore, the compensation incentive may not explain the result.

6.3 The market reaction to non-GAAP earnings disclosures

Table 6 reports the result of market reactions to non-GAAP earnings disclosures. According to H3, I expect that the market is more responsive to non-GAAP earnings disclosed by managers with higher reputations than to non-GAAP earnings disclosed by managers with lower reputations.

The overall estimated regression model of the MA_SCORE measure in the first column is significant with the adjusted $R^2 = 5.65\%$, which is comparable to the number in Doyle et al. (2003). The coefficient of UE is positive and significant ($\beta_1 = 0.364$, $p<0.05$), suggesting that the market positively reacts to the non-GAAP earnings announcement and that one dollar of unexpected earnings is related to 38 cents of abnormal returns.[5] The coefficient of TOTALEXCL is negative and significant ($\beta_2 = -0.071$, $p<0.05$), suggesting that the market may recognize the poor quality of non-GAAP exclusions and negatively

[5] When companies disclose non-GAAP earnings in press releases, they also disclose GAAP earnings. The market returns may be affected by GAAP earnings. Therefore, I include unexpected earnings calculated as the difference between GAAP earnings and the mean analysts' forecast to re-estimate the models. The results are consistent with the main findings.

reacts to the adjustments.

(Insert Table 6)

The coefficient of the interaction term of MA_SCORE, UE and NEWS is positive and significant (β_5= 3.120, p<0.01), which is consistent with the hypothesis and suggests that the market perceives non-GAAP earnings disclosed by reputable managers to be more credible and rewards companies with higher returns when the news is good. The total net effect is positive and significant ($\beta_1 + \beta_5$=0, F test: p-value < 0.001). Therefore, the market perceives the information from reputable managers to be more credible when the news is positive. The interaction term between TOTALEXCL and managerial reputation (β_6) is positive and insignificant, suggesting that managerial reputation can mitigate the negative effect of non-GAAP exclusions. However, when the news is negative, managerial reputation has no significant effect on market returns and the net effect is negative, suggesting that managerial reputation cannot turn poor performance around when the news is bad and the market negatively reacts to the information regardless of managerial reputation.

Regarding control variables, most control variables are not significant except POST, SIZE and MBE. The coefficient of POST is negative and significant (β_8 = -0.008, p<0.05), indicating that Regulation G reduced the association between returns and earnings surprises. The coefficient of SIZE is negative and significant (β_9 = - 0.001, p<0.01), suggesting that large firms have less risk and low returns. The coefficient of MBE is positive and significant (β_{14} =0.011, p<0.05), which is consistent with prior research that meeting the earnings benchmark is important and the market rewards firms when firms meet or beat earnings benchmarks.

The overall estimated regression model of the PRESS measure in the second column is significant with the adjusted R^2 = 5.46%. The coefficient of UE is positive and significant (β_1= 0.495, p<0.01), suggesting that the market positively reacts to the non-GAAP earnings and one dollar of unexpected earnings is related to 49 cents of returns.

The coefficient of the interaction term of PRESS, UE and NEWS is positive and significant (β_5= 0.395, p<0.10), which supports the hypothesis again. The total net effect is also positive and significant ($\beta_1 + \beta_5$=0, F test: p-value < 0.001) when the news is positive. When the news is negative, the net effect is negative and the market negatively reacts to the bad news regardless of managerial reputation.

Regarding control variables, the coefficient of SIZE is negative and significant. The coefficient of LEV is positive and significant, suggesting that firms with a high leverage ratio have high risk and high returns.

Overall, the results support the third hypothesis that the market uses managerial reputation to assess the credibility of non-GAAP earnings information and reacts more positively to non-GAAP earnings disclosed by reputable managers when the unexpected earnings are positive. However, when the unexpected earnings are negative, the market negatively reacts to the information regardless of managerial reputation.

6.4 Additional analysis

6.4.1Income-increasing and income decreasing exclusions

In the main analysis, I examine how managerial reputation affects the total non-GAAP exclusions. However, managerial reputation may have different effects on income-increasing (transitory gains) and income-decreasing (non-recurring expenses) non-GAAP adjustments. Excluding income-increasing items will decrease non-GAAP

earnings. Thus, the motivation to exclude these items is more likely to be a desire to be informative rather than a desire to be opportunistic (Curtis et al. 2013). Then given efficient contracting theory, I expect that managers with higher reputations make higher quality income-increasing adjusted non-GAAP earnings disclosures than do managers with lower reputations. To examine whether managerial reputation affects income-increasing and income-decreasing disclosures differently, I split the sample to estimate separate models. In the sample of non-GAAP disclosures, 19.70% of the disclosures are income-increasing adjustments and 80.3% of the disclosures are income-decreasing adjustments.

Table 7 Panel A presents the results of income-decreasing adjusted non-GAAP earnings disclosures. The results of the MA_SCORE measure are consistent with the main findings that reputable managers exclude more recurring items that are related to future operating earnings. When I use the PRESS measure, the results are different. Whereas I find no significant relationship for the PRESS measure interacted with TOTALEXCL in the main analysis, when I use the income-decreasing adjustments sample, the result in Panel A shows that the interaction of PRESS and TOTALEXCL is negative and significant (β_3= -0.017, $p<0.01$). The results are contrary to the second hypothesis that reputable managers make higher quality non-GAAP earnings disclosures. It suggests that reputable managers exclude more income-decreasing adjustments that are related to future operating earnings. The total net effect is also negative and significant ($\beta_1 + \beta_3=0$, F test: p-value < 0.001).

(Insert Table 7)

Table 7 Panel B presents the results of income-increasing adjustments. There is

some support for the efficient contracting explanation from the result of the MA_SCORE measure. The overall estimated regression model of the MA_SCORE measure in the first column is significant with the adjusted R^2 = 52.12%. The coefficient of TOTALEXCL is negative and significant (β_1= -0. 479, $p<0.10$), which suggests that the transitory gains excluded by managers are not non-recurring items. These excluded items are negatively related to future operating earnings and one dollar of income-increasing exclusions is associated with 48 cents of the future operating earnings. The coefficient of the interaction term between MA_SCORE and TOTALEXCL is positive and significant (β_3= 0.759, $p<0.05$), suggesting that managerial reputation can mitigate the negative effect of income-increasing non-GAAP adjustments. Therefore, when managers disclose income-increasing non-GAAP earnings, reputable managers are more likely to disclose higher quality income-increasing non-GAAP earnings, which is consistent with the efficient contracting explanation. However, no significant relationship is found for the PRESS measure.

Regarding the market reaction, the result of the market reaction to income-decreasing non-GAAP disclosures is consistent with the main findings. The result of the market reaction to income-increasing non-GAAP disclosures (untabulated) shows that there is no significant relationship between UE and returns. However, the interaction of MA_SCORE, UE, and NEWS is positive and significant, which suggests that managerial reputation has an incremental effect on the market reaction. The market perceives the income-increasing adjustment from reputable managers to be more credible and positively reacts to it when the unexpected earnings are positive. However, no significant relationship is found for the bad news.

Overall, the results suggest that reputable managers may have different incentives when they disclose income-increasing and income-decreasing non-GAAP earnings. The results of income-decreasing disclosures are consistent with the rent extraction explanation and the results of income-increasing disclosures are consistent with the efficient contracting explanation.

6.4.2 Regular and sporadic disclosures

Non-recurring items excluded by managers should be one-time transitory items. These excluded items should not recur regularly. This gives managers an opportunity to manipulate non-GAAP earnings because investors may not put more weight on the sporadic adjustment. Black and Christensen (2009) document that firms that sporadically disclose non-GAAP earnings are more likely to exclude recurring items to achieve earnings benchmarks than firms that disclose it regularly. Managerial reputation may have different effects on the two types of disclosures. To test whether managerial reputation has different effects on sporadic disclosures and regular disclosures, I split the sample based on the frequency of the disclosure to estimate the same models.

Following Black and Christensen (2009), I classify disclosures into regular disclosures if managers disclose them more than 29 times (the frequency of non-GAAP disclosures at the 90 percentile of the number of quarters out of 56 quarters in the sample of non-GAAP disclosures). In the sample of non-GAAP disclosures, 9.78% of the disclosures are regular non-GAAP disclosures. The results in Table 8 show that the interaction of managerial reputation and non-GAAP exclusions for the sporadic disclosure is negatively and significantly related to the future operating earnings. No significant relationship is found for the regular disclosure sample. The results suggest that

reputable managers may have more concerns about their reputations and they are less likely to exclude recurring items regularly to meet earnings benchmarks since the poor quality disclosure is more likely to be detected by investors if it recurs regularly. However, with a small sample size, the results should be interpreted with caution.

Regarding the market reaction (untabulated), the market positively reacts to sporadic disclosures and managerial reputation has an incremental effect on the market reaction. For the regular non-GAAP disclosures, the market does not react to the disclosure unless it is good news disclosed by reputable managers. Collectively, the results suggest that reputable managers sporadically exclude recurring items related to future operating earnings. The results also show that the market positively reacts to the disclosures because sporadic earnings management might not be easy for investors to detect.

(Insert Table 8)

6.4.3 Initial disclosures and continuous disclosures

Prior research documents that once companies start voluntary disclosure, it is difficult for them to stop. The reason is that if voluntary disclosures are discontinued, the market might perceive that managers are withholding bad news about future poor performance of the company (Dye 1985; Verrecchia 1983). Using an earnings guidance sample, Huston, Lev, and Tucker (2010) and Chen, Matsumoto, and Rajgopal (2011) provide evidence that expected poor performance is the main reason that companies stop issuing earnings guidance and that companies experience a significant deterioration in the information environment and negative market returns once they stop issuing earnings guidance. Therefore, it is costly for companies to stop voluntary disclosure once they

have started. Given the previous discussion, managerial reputation may have a different effect on the initial disclosure and the continuous disclosure. To test whether the main results are driven by the initial disclosure, I estimate separate models for the initial disclosure sample and the continuous disclosure sample (untabulated). No significant relationship is found for the interaction term of managerial reputation and non-GAAP exclusions.

Regarding the market reaction (untabulated), the market positively reacts to the continuous disclosure and managerial reputation has an incremental effect on the market reaction, which is consistent with the main findings. However, the relationship between the initial disclosure and market reactions is only marginally significant and managerial reputation has no incremental effect on market reaction.

6.4.4 Special items and other exclusions

Doyle et al. (2003) find that only other exclusions are significantly related to future performance and special items are not related to future performance. However, McVay (2006) finds that special items excluded are negatively related to future core earnings. Therefore, managerial reputation may have a different effect on special items exclusions and other exclusions. I decompose total exclusions into special items exclusions and other items exclusions to estimate the same model. The results in Table 9 show that the special items exclusions variable is positively and marginally significantly related to future operating earnings. However, when the special items exclusions variable is interacted with managerial reputation, it is not significantly related to future operating earnings. The results for other exclusions are consistent with the main findings. Coefficients of both other exclusions and the interaction term are negatively and

significantly related to future operating earnings. Therefore, the main results may be driven by other exclusions.

(Insert Table 9)

Regarding the market reaction, the results in Table 10 are consistent with the main findings. In addition, the market negatively reacts to other items exclusions, which indicates that the market suspects the quality of other items exclusions.

(Insert Table 10)

6.4.5 Self-selection bias and endogeneity issue

Since non-GAAP earnings disclosures are voluntary disclosures, managers can choose to disclose non-GAAP earnings or not. Therefore, the sample may suffer from self-selection bias because of some unobservable factors that could affect the managers' decision to disclose non-GAAP earnings. To correct the self-selection bias, I estimate a two-stage Heckman (1979) model. In the first stage, I use a probit model to estimate the determinants of non-GAAP earnings disclosures. In the second stage, I calculate the inverse Mills ratio and include the ratio as an additional regressor in the non-GAAP exclusions quality model (equation 4). The coefficient of the inverse Mills ratio is significant, which indicates that its inclusion may account for the sample selection bias. The coefficient of total exclusions interacted with managerial reputation is still negative and significant, which is consistent with the main findings.

In addition, there may be some omitted variables that can jointly affect managerial reputation and managers' decision to disclose non-GAAP earnings, which could bias the coefficient of managerial reputation upward or downward. To examine

whether the endogeneity issue exists, I conduct a Hausman test.[6] The instrument for managerial reputation follows Francis et al. (2008) and includes CEO tenure, age, compensations, stock returns and returns on assets. First, I estimate a regression of the instrumental variables on the managerial reputation. All the coefficients are significant, which indicates the instrument variables are related to the managerial reputation. In the second stage, I estimate the logistic regression model including the predicted residual value from the model in the first stage. The coefficient of the predicted residual value in the model is significant, which indicates that managerial reputation is an endogenous variable ($p<0.001$). The coefficient of managerial reputation is still negative and significant, which is consistent with the main findings.

6.4.6 Issue with the press citation measure

Regarding the press citation measure, CEOs with scandals or financial restatements are also more likely to be reported in press releases. This could cause a measurement error for the press citation measure. For a validity check, I identify a list of corporations with scandals from the Forbes website and exclude 70 observations related to 17 CEOs with scandals during their terms. I also eliminate 344 firm-year observations with financial restatements based on Hennes, Leone, and Miller (2008). The main result does not change.

[6] My endogeneity test is not exactly the same as Hausman's procedure for testing for endogeneity. Hausman's test involves comparing two specifications: model 1 in which the estimator is always consistent under the null and alternative hypotheses, and model 2 in which the estimator is efficient and consistent under the null hypothesis of no endogeneity, but inefficient and inconsistent under the alternative hypothesis. However, Hausman's test cannot be used with the cluster command. I estimate the logistic model by including the predicted residual value and clustering standard errors by firm to test the endogeneity issue.

6.5 Summary of empirical results

In this chapter, I present and discuss empirical results for the three hypotheses. The results support the first hypothesis that managers with higher reputations are less likely to disclose non-GAAP earnings because of the reputation concern, which is consistent with the efficient contracting explanation. The results also support the third hypothesis that the market is more responsive to non-GAAP earnings disclosed by reputable managers. Contradictory to my second hypothesis, the results suggest that reputable managers exclude more recurring items that are related to future operating earnings, which is consistent with the rent extraction explanation. Additional analyses indicate that this result may be driven by income-decreasing adjustments. The results of income-increasing adjustments are consistent with the efficient contracting explanation. Furthermore, the additional analyses suggest that managerial reputation has negative effects on sporadic adjustments and exclusions of other items. The results are robust for the self-selection bias correction.

CHAPTER 7: CONCLUSIONS

Motivated by the efficient contracting theory and the credibility issue of non-GAAP earnings disclosures documented in prior research, I examine how managerial reputation, a managerial incentive, affects the quality of non-GAAP earnings disclosures. I also examine how the market reacts to non-GAAP earnings disclosure associated with managerial reputation to shed light on the mixed results of prior literature.

I find evidence that managers with higher reputations are less likely to disclose non-GAAP earnings because the non-GAAP earnings measure is perceived to be an earnings management tool, which is consistent with the efficient contracting theory. I also find that when managers disclose non-GAAP earnings, managers with higher reputations exclude more recurring items related to future operating performance in order to meet performance benchmarks, which is consistent with the rent extraction explanation. However, the market perceives non-GAAP earnings disclosed by reputable managers to be more credible and reacts more positively to these disclosures when the unexpected earnings are positive. Further analysis shows that the main results are driven by income-decreasing adjustments and exclusions of other items. The results of income-increasing adjustments are consistent with the efficient contracting theory.

The study extends prior research on non-GAAP earnings disclosures in several aspects. First, to my knowledge, it is the first study to examine the effect of managerial reputation incentive on non-GAAP earnings disclosure. Second, the study explores both income-increasing and income-decreasing non-GAAP earnings disclosures. Third, the

study also examines whether managerial reputation enhances the credibility of non-GAAP disclosures from the market perspective.

The study contributes to the non-GAAP earnings literature by providing evidence that managerial reputation is an important concern when managers make non-GAAP earnings disclosures. However, when a company's earnings performance misses benchmarks, reputable managers opportunistically exclude more recurring items to meet benchmarks so as to protect their reputations.

Second, the study provides evidence that managerial reputation has different effects on income-increasing and income-decreasing non-GAAP adjustments. Income-decreasing adjustments are consistent with the rent extraction explanation and income-increasing adjustments are consistent with the efficient contracting explanation.

Third, the study provides evidence that managerial reputation has an incremental effect on market reaction. The market uses managerial reputation to assess the credibility of non-GAAP disclosures and rewards companies with high returns when the unexpected information is positive. The study also confirms that bad news is more credible than good news and the market negatively reacts to the non-GAAP earnings regardless of managerial reputation.

I acknowledge some limitations in this study. First, the study uses I/B/E/S actual earnings instead of pro forma earnings to conduct empirical tests. Although the I/B/E/S actual earnings are from companies' press releases, these earnings numbers have been adjusted by analysts.[7] Therefore, the I/B/E/S actual earnings might include analysts'

[7] Bhattacharya et al. (2003) compare the Street earnings number and hand collected pro forma earnings number and find that 65% of hand-collected pro forma earnings coincide with the number from the I/B/E/S database.

biases, which could affect my results. Second, the measure of managerial reputation is not perfect. Regarding the press citation measure, although I exclude CEOs with scandals or financial restatements for the additional analysis, the measurement error can still bias the result. Additionally, it is difficult to separate the firm's effect from the CEO's personal effect using this measure. Regarding the MA_SCORE measure, although Demerjian et al. (2012) test the validity of this measure and show that it is a better measure in comparison with other measures, the residual value of the firm efficiency regression model might capture some other omitted factors.

Figure 1 Mean Value of Reputation Measure

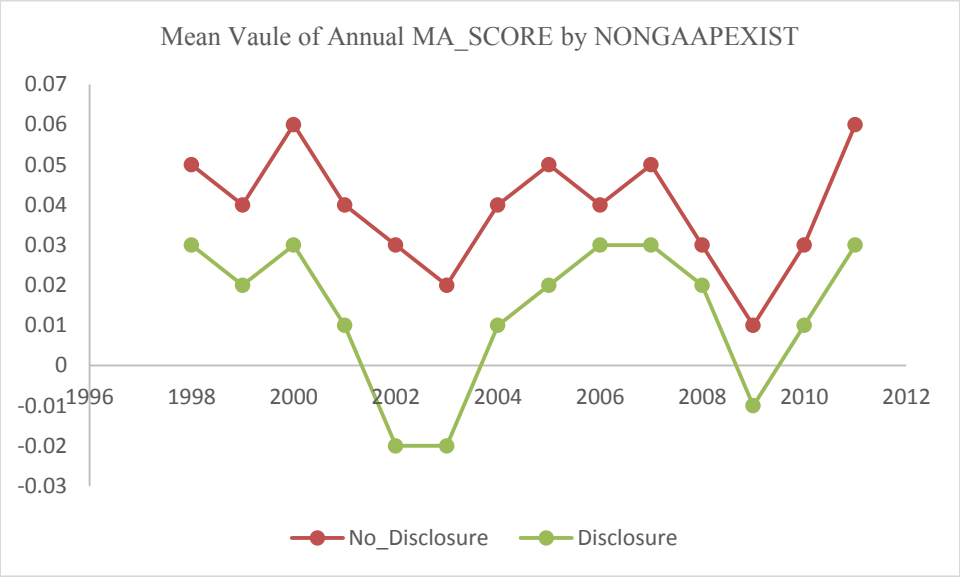

Figure 1A

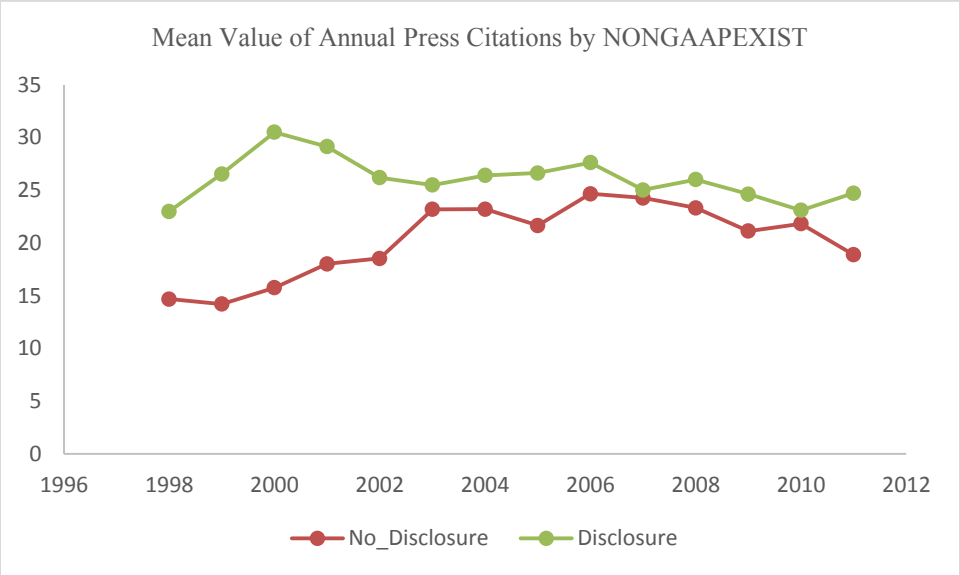

Figure 1B

APPENDIX A

Variable Definitions

NONGAAPEXIST	=	an indicator variable equal to 1 if the quarterly non-GAAP exclusion is positive or negative, and 0 otherwise;
NONGAAPFREQ	=	the frequency of non-GAAP earnings disclosure measured as the number of quarters in a year where non-GAAP exclusions are non-zero;
TOTALEXCL	=	total non-GAAP exclusions calculated as the absolute value of the difference between non-GAAP earnings and GAAP earnings;
NONGAAPEARN	=	non-GAAP earnings per share from the I/B/E/S database;
GAAPEARN	=	GAAP earnings before extraordinary items from Compustat;
OI	=	earnings per share from operations;
REP	=	manager's reputation measurement as defined in section 4.1;
COMP	=	manager's total cash compensation measured as salary and bonus;
TENURE	=	managers' tenure measured as the number of years an executive served as CEO;
EARVOL	=	earnings volatility measured as the standard deviation of return on assets over at least six of the preceding eight quarters;
POST	=	an indicator variable equal to 1 if a firm year observation is in year 2002 and after, and 0 otherwise;
ACCR	=	accounting conservatism measured as the average total accruals scaled by total assets over a 6-year period, multiplied by negative one;
SALES	=	the percentage change in the sales revenue;
SIZE	=	the natural log of total assets;
LEV	=	the ratio of debt to total assets;
LOSS	=	an indicator variable equal to 1 if the company’s current operating earnings is negative, and 0 otherwise;
AUD	=	an indicator variable equal to 1 if the company is audited by the Big 4, and 0 otherwise;
GOV	=	corporate governance measured as the percent of board members that are independent in the fiscal year;
MBE	=	an indicator variable equal to 1 if non-GAAP earnings meet or

		beat analysts' mean forecasts and GAAP operating earnings miss the benchmark, and 0 otherwise;
MTB	=	the ratio of market value of equity divided by book value of equity;
LAGDISC	=	an indicator variable equal to 1 if a company discloses non-GAAP earnings in the prior year, and 0 otherwise;
CAR	=	size-adjusted abnormal returns cumulated over the three-day window surrounding the earnings announcement date;
UE	=	unexpected earnings calculated as the difference between non-GAAP earnings and the mean analysts' forecast;
NEWS	=	an indicator variable equal to 1 if non-GAAP earnings are equal or greater than consensus analyst earnings forecasts, and 0 otherwise.

APPENDIX B

Example of Non-GAAP Earnings Disclosures

AMAZON.COM, INC.
Pro Forma Statements of Operations
(in thousands, except per share data)
(unaudited)
Three Months Ended 6/30/2003

	As Reported(1)	Adjustments	Adjusted
Net sales	$1,099,912	$ -	$1,099,912
Cost of sales	825,984	-	825,984
Gross profit	273,928	-	273,928
Operating expenses:			
Fulfillment	107,455	-	107,455
Marketing	25,326	-	25,326
Technology and content	52,135	-	52,135
General and administrative	21,823	-	21,823
Stock-based compensation	24,453	-24,453	-
Amortization of other intangibles	913	-913	-
Restructuring-related	-	-	-
Total operating expenses	232,105	-25,366	206,739
Income from operations	41,823	25,366	67,189(2)
Interest income	5,761	-	5,761
Interest expense	-34,367	-	-34,367
Other income (expense), net	3,685	-	3,685
Remeasurement of 6.875% PEACS and other	-60,216	60,216	-
Total non-operating expenses, net	-85,137	60,216	-24,921
Income (loss) before equity in losses of equity-method investees	-43,314	85,582	42,268
Equity in losses of equity-method investees, net	-	-	-
Net income (loss)	($43,314)	$85,582	$ 42,268(3)
Basic income (loss) per share:	($0.11)	$0.22	$ 0.11(4)
Diluted income (loss) per share:	($0.11)	$0.21	$ 0.10(4)

(1) In accordance with accounting principles generally accepted in the United States.
(2) Consolidated segment operating income.
(3) Pro forma net income.
(4) Pro forma earnings per share.

Table 1 Sample selection

Quarterly sample:	
Quarterly Non-GAAP earnings from I/B/E/S (1997-2012)	357,198
Missing quarterly GAAP earnings data from Compustat	(59,621)
Quarterly Non-GAAP earnings	297,577
Annual sample (sum of quarterly obsrevations):	
Annual Non-GAAP earnings	83,382
Missing data for one year ahead operating earnigns	(13,235)
Missing data for prior year disclosures	(11,482)
Missing data from Execucomp	(37,377)
Exclude 4900-4999 and 6000-6999 regulated industries	(4,361)
Missing data for ma_score measure	(508)
Missing data from Compustat	(176)
Missing data from RiskMetrics	(3,489)
	12,754
Missing data from CRSP	(825)
	11,929

Table 2 Descriptive statistics for the sample of firms

Panel A: Descriptive statistics for the total sample of firms (N=12,754)

Variable	Mean	Standard Deviation	25th Percentile	Median	75th Percentile
NonGAAPEXIST	0.744	0.436	0.000	1.000	1.000
NonGAAPFREQ	2.030	1.585	0.000	2.000	4.000
NONGAAP	0.064	0.066	0.033	0.061	0.097
GAAP	0.047	0.096	0.021	0.054	0.092
TOTALEXCL	0.024	0.050	0.000	0.006	0.022
OI	0.059	0.074	0.029	0.058	0.094
PRESS	24.659	36.311	9.000	15.000	25.000
MA_SCORE	0.018	0.136	-0.072	0.006	0.095
COMP	6.848	0.708	6.402	6.819	7.251
TENURE	7.994	7.289	2.751	5.671	10.838
EARVOL	0.016	0.022	0.005	0.008	0.017
POST	0.743	0.437	0.000	1.000	1.000
ACCR	0.010	0.033	-0.007	0.005	0.021
SALES	0.102	0.221	-0.005	0.080	0.178
SIZE	7.432	1.472	6.364	7.284	8.356
LEV	0.207	0.168	0.047	0.199	0.320
LOSS	0.108	0.311	0.000	0.000	0.000
AUD	0.907	0.290	1.000	1.000	1.000
GOV	0.703	0.187	0.600	0.750	0.846
MBE	0.640	0.480	0.000	1.000	1.000
MTB	3.151	3.163	1.494	2.286	3.693
LAGDISC	0.737	0.440	0.000	1.000	1.000
CAR	0.005	0.077	-0.036	0.003	0.047
UE	0.009	0.141	-0.010	0.010	0.050

Notes:

a. This table provides descriptive statistics for the sample. The final sample includes 12,754 observations except CAR and UE, which include 11,929 observations.
b. All variables are defined in Appendix A.
c. All continuous variables are winsorized at the 1% and 99% levels.

Panel B: Descriptive statistics for the sample of firms by NONGAAPEXIST

	Firms with NonGAAPFREQ = 0			Firms with NonGAAPFREQ > 0				
Variable	(N = 3,263)			(N =9,491)			Test of difference [a]	
	Mean	Median	SD	Mean	Median	SD	t value	z value
NONGAAP FREQ	0.000	0.000	0.000	2.728	3.000	1.214	-218.84 ***	-87.69 ***
NONGAAP EARN	0.078	0.075	0.072	0.060	0.056	0.063	13.00 ***	17.50 ***
GAAPEAR	0.076	0.075	0.083	0.037	0.047	0.098	21.91 ***	26.25 ***
TOTAL EXCL	0.000	0.000	0.000	0.032	0.012	0.056	-55.33 ***	-86.07 ***
OI	0.078	0.075	0.074	0.052	0.053	0.074	17.56 ***	21.69 ***
PRESS	20.274	13.000	30.690	26.112	16.000	37.881	-7.70 ***	-11.02 ***
MA_SCORE	0.038	0.028	0.132	0.011	-0.001	0.136	9.81 ***	10.97 ***
COMP	6.782	6.746	0.753	6.870	6.843	0.691	-5.89 ***	-7.18 ***
TENURE	9.364	6.753	8.189	7.523	5.337	6.890	11.52 ***	11.12 ***
EARVOL	0.013	0.007	0.019	0.017	0.009	0.024	-9.39 ***	-10.01 ***
POST	0.734	1.000	0.442	0.746	1.000	0.435	-1.43	-1.43
ACCR	0.005	0.003	0.030	0.012	0.006	0.034	-10.51 ***	-10.48 ***
SALES	0.123	0.100	0.197	0.094	0.072	0.228	6.82 ***	10.32 ***
SIZE	7.017	6.808	1.408	7.575	7.438	1.467	-19.31 ***	-19.43 ***
LEV	0.174	0.154	0.164	0.219	0.214	0.168	-13.44 ***	-14.11 ***
LOSS	0.066	0.000	0.248	0.123	0.000	0.328	-10.41 ***	-9.07 ***
AUD	0.875	1.000	0.331	0.918	1.000	0.274	-6.75 ***	-7.38 ***
GOV	0.674	0.714	0.193	0.713	0.750	0.184	-9.96 ***	-11.55 ***
MBE	0.673	1.000	0.469	0.629	1.000	0.483	4.60 ***	4.53 ***
MTB	3.522	2.583	3.372	3.023	2.195	3.078	7.45 ***	10.56 ***
LAGDISC	0.481	0.000	0.500	0.825	1.000	0.380	-35.93 ***	-38.50 ***
CAR	0.007	0.003	0.076	0.004	0.003	0.077	2.02 **	1.57
UE	0.012	0.010	0.136	0.009	0.010	0.143	1.1	0.13

Notes:

a. This table presents descriptive statistics for firms with non-GAAP disclosures and for firms without non-GAAP disclosures separately.
b. Differences in means tests are Student t-tests; differences in medians tests are Wilcoxon rank-sum tests. Two-tailed p-values are presented.
c. All variables are defined in Appendix A.
d. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

Table 3 Correlation of variables

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	**NONGAAP EXIST**		**0.7507**	**-0.1220**	**-0.1763**	**0.2761**	**-0.1537**	**0.0695**	**-0.0866**	**0.0543**	**-0.1102**	**0.0745**	**0.0869**	**-0.0562**	**0.1653**	**0.1168**	**0.0803**	**0.0653**	**0.0899**	**-0.0401**	**-0.0688**	**-0.0185**	-0.0098
2	**NONGAAP FREQ**	**0.7765**		**-0.1176**	**-0.2172**	**0.3586**	**-0.1890**	**0.1051**	**-0.0806**	**0.0628**	**-0.1108**	**0.1073**	**0.1537**	**-0.0481**	**0.2218**	**0.1033**	**0.1102**	**0.0954**	**0.1404**	**-0.0344**	**-0.0649**	**-0.0230**	-0.0013
3	**NONGAAP EARN**	**-0.1550**	**-0.1471**		**0.8265**	**-0.2196**	**0.9199**	**0.0479**	**0.3932**	**0.1720**	**0.0226**	**-0.1686**	**-0.1720**	**0.2637**	**0.0687**	**-0.2690**	**-0.5637**	0.0155	0.0113	**0.3512**	**0.3661**	**0.0290**	**0.1744**
4	**GAAP**	**-0.2325**	**-0.2680**	**0.9021**		**-0.6144**	**0.9116**	**0.0216**	**0.3267**	**0.1838**	**0.0391**	**-0.2281**	**-0.3379**	**0.2395**	**0.0855**	**-0.2082**	**-0.6349**	-0.0013	0.0005	**0.3104**	**0.2747**	**0.0420**	**0.1445**
5	**TOTAL EXCL**	**0.7622**	**0.7744**	**-0.1649**	**-0.3438**		**-0.4054**	**0.0387**	**-0.0872**	**-0.1152**	**-0.0596**	**0.2451**	**0.3511**	**-0.0955**	**-0.0633**	**0.0225**	**0.4174**	**0.0214**	**0.0208**	**-0.1388**	**-0.0323**	**-0.0333**	**-0.0423**
6	**OI**	**-0.1921**	**-0.2260**	**0.9478**	**0.9444**	**-0.2537**		**0.0372**	**0.3809**	**0.1884**	**0.0288**	**-0.2244**	**-0.2598**	**0.2408**	**0.0740**	**-0.2335**	**-0.6529**	0.0056	0.0031	**0.3267**	**0.3308**	**0.0323**	**0.1377**
7	**PR**	**0.1107**	**0.1406**	**0.0221**	-0.0027	**0.1243**	0.0140		**-0.1020**	**0.1744**	**-0.0546**	-0.0105	**0.0417**	**0.0199**	**0.4626**	0.0142	-0.0156	**0.0608**	**0.0410**	**0.0473**	**0.1311**	-0.0084	0.0191
8	**MA_SCOR**	**-0.0971**	**-0.0952**	**0.4039**	**0.3853**	**-0.1156**	**0.4108**	**-0.0545**		**0.0613**	**0.0569**	**-0.0612**	**-0.0775**	**0.2619**	**-0.0284**	**-0.0860**	**-0.2319**	**-0.0301**	**-0.0486**	**0.1189**	**0.1601**	0.0145	**0.0557**
9	**COMP**	**0.0635**	**0.0696**	**0.1657**	**0.1802**	**-0.0486**	**0.1842**	**0.2963**	**0.0832**		**-0.0373**	**-0.1285**	**-0.0717**	**0.0612**	**0.5640**	**0.1784**	**-0.1987**	**0.0718**	**0.0679**	**0.1594**	**0.1053**	0.0104	**0.0713**
10	**TENURE**	**-0.0985**	**-0.0983**	**0.0403**	**0.0519**	**-0.1035**	**0.0412**	**-0.1122**	**0.0548**	-0.0057		**-0.0523**	**-0.0796**	**0.0618**	**-0.1138**	**-0.0670**	-0.0106	**-0.0824**	**-0.1459**	**-0.0180**	**-0.0238**	0.0009	-0.0102
11	**EARVOL**	**0.0886**	**0.1148**	**-0.0758**	**-0.1120**	**0.2271**	**-0.1068**	**0.0327**	**-0.0646**	**-0.1409**	**-0.0654**		**0.4350**	-0.0032	**-0.1563**	**-0.0463**	**0.2784**	-0.0142	**0.0259**	**-0.0975**	**0.0391**	0.0057	-0.0076
12	**ACCR**	**0.0928**	**0.1616**	**-0.0823**	**-0.1601**	**0.1874**	**-0.1295**	**0.0640**	**-0.0515**	**-0.0324**	**-0.0622**	**0.2195**		**-0.1011**	**-0.0532**	-0.0099	**0.2562**	**0.0645**	**0.0987**	**-0.0611**	**0.0366**	0.0016	0.0078
13	**SALES**	**-0.0914**	**-0.0822**	**0.3325**	**0.3249**	**-0.1259**	**0.3178**	**0.0378**	**0.2503**	**0.0839**	**0.1057**	**-0.0476**	**-0.0930**		0.0009	**-0.0520**	**-0.1798**	-0.0138	**-0.0674**	**0.1267**	**0.1695**	0.0148	**0.0683**
14	**SIZE**	**0.1721**	**0.2271**	**0.0250**	**0.0225**	**0.0592**	**0.0252**	**0.4300**	0.0070	**0.6122**	**-0.0904**	**-0.2058**	-0.0013	0.0019		**0.3008**	**-0.1496**	**0.1592**	**0.1667**	**0.1241**	**0.0602**	-0.0157	**0.0665**
15	**LEV**	**0.1249**	**0.1110**	**-0.3233**	**-0.2895**	**0.0469**	**-0.2942**	**0.0488**	**-0.0819**	**0.2191**	**-0.0521**	**-0.1294**	**-0.0475**	**-0.0968**	**0.3590**		**0.0934**	**0.0328**	0.0096	**-0.0905**	**-0.0352**	-0.0174	**-0.0542**
16	**LOSS**	**0.0803**	**0.1105**	**-0.4828**	**-0.5128**	**0.2580**	**-0.5379**	-0.0151	**-0.2495**	**-0.2068**	**-0.0218**	**0.2747**	**0.1714**	**-0.2153**	**-0.1473**	**0.0659**		-0.0172	**-0.0204**	**-0.3552**	**-0.1063**	**-0.0301**	**-0.1413**
17	**AUD**	**0.0653**	**0.0944**	**0.0205**	0.0070	**0.0471**	0.0131	**0.0774**	**-0.0278**	**0.0784**	**-0.0598**	**-0.0384**	**0.0834**	-0.0027	**0.1638**	**0.0375**	-0.0172		**0.1307**	**0.0523**	0.0170	0.0006	**0.0284**
18	**GOV**	**0.1023**	**0.1524**	0.0129	-0.0081	**0.0847**	-0.0010	**0.1274**	**-0.0563**	**0.0972**	**-0.0854**	0.0120	**0.0973**	**-0.0778**	**0.2043**	**0.0653**	**-0.0248**	**0.1235**		**0.0374**	-0.0061	-0.0087	**0.0377**
19	**MBE**	**-0.0401**	**-0.0331**	**0.3396**	**0.3109**	**-0.0983**	**0.3183**	**0.0736**	**0.1280**	**0.1715**	0.0008	**-0.1028**	-0.0117	**0.1621**	**0.1284**	**-0.0770**	**-0.3552**	**0.0523**	**0.0385**		**0.1213**	**0.1903**	**0.4814**
20	**MTB**	**-0.0935**	**-0.0897**	**0.5593**	**0.5227**	**-0.0858**	**0.5461**	**0.1588**	**0.2070**	**0.1714**	-0.0027	0.0033	**0.0208**	**0.2591**	**0.0942**	**-0.1425**	**-0.2021**	**0.0523**	0.0020	**0.2082**		-0.0041	**0.0357**
21	**CAR**	-0.0144	**-0.0194**	**0.0274**	**0.0333**	**-0.0241**	**0.0313**	-0.0081	**0.0206**	0.0149	0.0005	0.0070	0.0050	**0.0342**	-0.0155	**-0.0207**	**-0.0291**	0.0033	-0.0133	**0.1977**	0.0032		**0.1788**
22	**UE**	-0.0012	0.0078	**0.1281**	**0.1185**	**-0.0228**	**0.1167**	**0.0401**	**0.0510**	**0.1083**	0.0038	0.0093	**0.0446**	**0.0679**	**0.0829**	**-0.0412**	**-0.1029**	**0.0380**	**0.0625**	**0.6811**	**0.0610**	**0.2663**	

Notes:

a. This table presents correlations among test variables.
b. The lower left triangle is Spearman and the upper right triangle is Pearson correlation.
c. All variables are defined in Appendix A.
d. The black bold number indicates significance at the 5 percent.

Table 4 Regressions of non-GAAP exclusions on managerial reputation

Panel A: Logistic regressions of non-GAAP exclusions on managerial reputation

$$NONGAAPEXIST = \alpha_0 + \beta_1 REP + \beta_2 COMP + \beta_3 TENURE + \beta_4 EARVOL + \beta_5 POST + \beta_6 ACCR + \beta_7 SALES + \beta_8 SIZE + \beta_9 LEV + \beta_{10} LOSS + \beta_{11} AUD + \beta_{12} GOV + \beta_{13} MBE + \beta_{14} MTB + \beta_{15} LAGDISC + \varepsilon$$

		MA_SCORE		PRESS	
Variable	Expected Sign	Coefficient	Chisq-statistics	Coefficient	Chisq-statistics
Intercept		-0.651	1.83	-1.240	5.88 **
REP	H1: -	-0.317	7.91 ***	-0.017	0.79
COMP	-	-0.092	3.20 *	-0.105	2.98 *
TENURE	-	-0.015	21.76 ***	-0.016	16.40 ***
EARVOL	+	4.538	9.91 ***	5.502	10.71 ***
POST	-	-0.143	1.33	-0.115	0.63
ACCR	+	2.651	7.28 ***	3.052	6.62 ***
SALES	+	-0.353	11.01 ***	-0.436	13.13 ***
SIZE	+	0.263	70.77 ***	0.280	61.04 ***
LEV	+	0.849	21.10 ***	0.910	17.12 ***
LOSS	+	0.494	23.30 ***	0.525	19.81 ***
AUD	-	0.189	5.20 **	0.259	7.43 ***
GOV	-	0.540	14.44 ***	0.480	9.34 ***
MBE	+	0.130	2.51	0.197	4.00 **
MTB	-	-0.057	46.96 ***	-0.062	41.88 ***
LAGDISC	+	1.349	621.56 ***	1.355	465.30 ***
Industry and Year		Yes		Yes	
Log Likelihood		2186.167		1728.2549	
Max-rescaled Rsq		23.19%		23.74%	
N		12,754		12,754	

Panel B: Ordinal logistic regressions of non-GAAP exclusions on managerial reputation

$$NONGAAPFREQ = \alpha_0 + \beta_1 REP + \beta_2 COMP + \beta_3 TENURE + \beta_4 EARVOL + \beta_5 POST + \beta_6 ACCR + \beta_7 SALES + \beta_8 SIZE + \beta_9 LEV + \beta_{10} LOSS + \beta_{11} AUD + \beta_{12} GOV + \beta_{13} MBE + \beta_{14} MTB + \beta_{15} LAGDISC + \varepsilon$$

		MA_SCORE		PRESS	
Variable	Expected Sign	Coefficient	Chisq-statistics	Coefficient	Chisq-statistics
Intercept					
REP	H1: -	-0.180	3.43 *	-0.024	2.48
COMP	-	-0.056	1.90	-0.064	1.84
TENURE	-	-0.012	13.11 ***	-0.013	12.46 ***
EARVOL	+	2.441	5.27 **	3.827	9.11 ***
POST	-	0.216	6.15 **	0.197	3.67 *
ACCR	+	4.583	32.65 ***	5.297	31.06 ***
SALES	+	-0.026	0.09	-0.095	0.91
SIZE	+	0.264	104.70 ***	0.286	98.49 ***
LEV	+	0.762	23.06 ***	0.773	17.48 ***
LOSS	+	0.543	41.37 ***	0.533	27.29 ***
AUD	-	0.205	7.81 ***	0.272	10.08 ***
GOV	-	0.504	17.23 ***	0.513	14.82 ***
MBE	+	0.181	5.42 **	0.225	5.52 **
MTB	-	-0.049	41.91 ***	-0.054	38.68 ***
LAGDISC	+	1.436	884.86 ***	1.426	643.36 ***
Industry and Year		Yes		Yes	
Log Likelihood		3746.4947		2913.969	
Max-rescaled Rsq		26.63%		27.28%	
N		12,754		12,754	

Notes:

a. This table presents logistic regressions and ordinary logistic regressions of non-GAAP disclosures on managerial reputation.
b. All variables are defined in Appendix A.
c. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

Table 5 Regressions of future OI on managerial reputation and non-GAAP exclusions

$$OI_{t+1} = \alpha_0 + \beta_1 TOTALEXCL + \beta_2 REP + \beta_3 TOTALEXCL*REP + \beta_4 NONGAAPEARN + \beta_5 EARVOL + \beta_6 POST + \beta_7 ACCR + \beta_8 SALES + \beta_9 SIZE + \beta_{10} LEV + \beta_{11} LOSS + \beta_{12} AUD + \beta_{13} GOV + \beta_{14} MBE + \beta_{15} MTB + \varepsilon$$

		MA_SCORE			PRESS		
Variable	Expected Sign	Coefficient	t-statistics		Coefficient	t-statistics	
Intercept	?	-0.005	-0.78		-0.006	-0.91	
TOTALEXCL	-	-0.055	-1.29		-0.120	-4.88	***
REP	+	0.008	3.32	***	-0.001	-1.45	
TOTALEXCL* REP	H2: +	-0.151	-2.23	**	-0.001	-0.16	
NONGAAPEARN	+	0.702	33.17	***	0.723	31.45	***
EARVOL	-	-0.148	-3.81	***	-0.153	-3.82	***
POST	?	0.007	2.72	***	0.006	2.08	**
ACCR	+	0.075	2.70	***	0.054	1.83	*
SALES	+	-0.019	-5.37	***	-0.013	-3.60	***
SIZE	+	0.001	1.97	*	0.001	2.18	**
LEV	-	-0.004	-1.03		-0.007	-1.44	
LOSS	-	-0.016	-5.08	***	-0.010	-3.13	***
AUD	+	-0.001	-0.52		-0.001	-0.50	
GOV	+	-0.004	-1.36		-0.003	-1.13	
MBE	+	0.008	7.65	***	0.007	6.35	***
MTB	+	0.002	6.69	***	0.002	6.85	***
Industry and Year		Yes			Yes		
Adj Rsq		55.32%			57.00%		
N		12,754			12,754		

Notes:

a. This table presents regressions of future operating earnings on the non-GAAP exclusions associated with managerial reputation.
b. All variables are defined in Appendix A.
c. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

Table 6 Regressions of market reactions to non-GAAP disclosures

$$CAR = \alpha_0 + \beta_1 UE + \beta_2 TOTALEXCL + \beta_3 REP + \beta_4 NEWS + \beta_5 UE*REP*NEWS + \beta_6 TOTALEXCL*REP*NEWS + \beta_7 EARVOL + \beta_8 POST + \beta_9 SIZE + \beta_{10} LEV + \beta_{11} LOSS + \beta_{12} AUD + \beta_{13} GOV + \beta_{14} MBE + \beta_{15} MTB + \varepsilon$$

		MA_SCORE		PRESS	
Variable	Expected Sign	Coefficient	t-statistics	Coefficient	t-statistics
Intercept	?	0.014	1.33	0.020	1.67 *
UE	+	0.364	2.41 **	0.495	2.93 ***
TOTALEXCL	-	-0.071	-2.42 **	-0.059	-1.78 *
REP	+	-0.004	-1.27	-0.001	-0.53
NEWS	+	0.017	3.00 ***	0.014	2.44 **
UE*REP*NEWS	H3: +	3.120	6.17 ***	0.395	3.19 ***
TOTALEXCL* REP*NEWS	+	0.035	0.69	0.013	1.02
EARVOL	-	0.021	0.50	0.057	1.31
POST	?	-0.008	-2.35 **	-0.005	-1.37
SIZE	-	-0.001	-2.67 ***	-0.002	-3.19 ***
LEV	+	0.007	1.41	0.010	1.86 *
LOSS	-	0.004	0.95	0.002	0.62
AUD	+	0.000	-0.05	0.000	0.10
GOV	+	-0.003	-0.59	-0.004	-0.84
MBE	+	0.011	2.10 **	0.013	2.47 **
MTB	+	0.000	-1.02	0.000	-1.05
Industry and Year		Yes		Yes	
Adj Rsq		5.65%		5.46%	
N		11,929		11,929	

Notes:

a. This table presents regressions of cumulative abnormal returns on the unexpected earnings associated with managerial reputation.
b. All variables are defined in Appendix A.
c. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

Table 7 Regression of future OI on managerial reputation (Income-decreasing exclusions and income-increasing exclusions)

$$OI_{t+1} = \alpha_0 + \beta_1 TOTALEXCL + \beta_2 REP + \beta_3 TOTALEXCL*REP + \beta_4 NONGAAPEARN + \beta_5 EARVOL + \beta_6 POST + \beta_7 ACCR + \beta_8 SALES + \beta_9 SIZE + \beta_{10} LEV + \beta_{11} LOSS + \beta_{12} AUD + \beta_{13} GOV + \beta_{14} MBE + \beta_{15} MTB + \varepsilon$$

Panel A: Income-decreasing non-GAAP exclusions

Income-decreasing		MA_SCORE			PRESS		
Variable	Expected Sign	Coefficient	t-statistics		Coefficient	t-statistics	
Intercept	?	-0.022	-2.75	***	-0.024	-2.17	**
TOTALEXCL	-	-0.084	-1.92	*	-0.117	-4.41	***
REP	+	0.009	3.04	***	0.000	-0.66	
TOTALEXCL* REP	H2: +	-0.142	-1.98	*	-0.017	-3.34	***
NONGAAPEARN	+	0.754	25.38	***	0.735	23.73	***
EARVOL	-	-0.200	-4.08	***	-0.179	-3.79	***
POST	?	0.007	2.09	**	0.003	0.93	
ACCR	+	0.084	2.24	**	0.096	2.62	***
SALES	+	-0.026	-5.44	***	-0.013	-2.79	***
SIZE	+	0.002	3.18	***	0.002	3.46	***
LEV	-	0.002	0.32		-0.004	-0.62	
LOSS	-	-0.002	-0.69		0.001	0.40	
AUD	+	-0.002	-0.56		0.000	-0.05	
GOV	+	0.000	0.03		-0.002	-0.40	
MBE	+	0.010	6.88	***	0.008	5.34	***
MTB	+	0.002	4.20	***	0.002	5.06	***
Industry and Year		Yes			Yes		
Adj Rsq		53.20%			56.12%		
N		7,003			7,003		

Panel B: Income-increasing non-GAAP exclusions

Income-increasing		MA_SCORE			PRESS		
Variable	Expected Sign	Coefficient	t-statistics		Coefficient	t-statistics	
Intercept	?	0.001	0.07		0.015	1.06	
TOTALEXCL	-	-0.479	-1.96	*	0.080	1.01	
REP	+	0.019	3.29	***	0.000	0.46	
TOTALEXCL* REP	H2: +	0.759	2.17	**	-0.027	-1.02	
NONGAAPEARN	+	0.655	19.59	***	0.659	18.63	***
EARVOL	-	-0.214	-2.44	**	-0.199	-1.82	*
POST	?	0.006	1.02		0.010	1.49	
ACCR	+	0.063	1.21		0.027	0.43	
SALES	+	-0.017	-2.24	**	-0.021	-2.49	**
SIZE	+	-0.001	-0.94		-0.002	-1.84	*
LEV	-	-0.002	-0.27		0.002	0.22	
LOSS	-	0.010	1.64		0.003	0.46	
AUD	+	0.000	-0.10		-0.002	-0.42	
GOV	+	-0.004	-0.60		-0.002	-0.37	
MBE	+	0.007	3.14	***	0.007	2.48	**
MTB	+	0.002	3.83	***	0.003	4.32	***
Industry and Year		Yes			Yes		
Adj Rsq		52.12%			52.19%		
N		2,513			2,513		

Notes:

a. This table presents regressions of future operating earnings on the income-decreasing exclusions and income-increasing exclusions associated with managerial reputation separately.
b. All variables are defined in Appendix A.
c. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

Table 8 Regression of future OI on managerial reputation (Sporadic exclusions and regular exclusions)

$$OI_{t+1} = \alpha_0 + \beta_1 TOTALEXCL + \beta_2 REP + \beta_3 TOTALEXCL*REP + \beta_4 NONGAAPEARN + \beta_5 EARVOL + \beta_6 POST + \beta_7 ACCR + \beta_8 SALES + \beta_9 SIZE + \beta_{10} LEV + \beta_{11} LOSS + \beta_{12} AUD + \beta_{13} GOV + \beta_{14} MBE + \beta_{15} MTB + \varepsilon$$

Panel A: Sporadic non-GAAP exclusions

Sporadic		MA_SCORE			PRESS		
Variable	Expected Sign	Coefficient	t-statistics		Coefficient	t-statistics	
Intercept	?	-0.010	-1.33		-0.011	-1.25	
TOTALEXCL	-	-0.053	-1.14		-0.130	-4.49	***
REP	+	0.009	3.24	***	-0.001	-1.13	
TOTALEXCL* REP	H2: +	-0.181	-2.48	**	0.000	-0.09	
NONGAAPEARN	+	0.727	28.21	***	0.749	26.51	***
EARVOL	-	-0.150	-3.33	***	-0.159	-3.48	***
POST	?	0.006	1.93	*	0.006	1.69	*
ACCR	+	0.076	2.56	**	0.048	1.57	
SALES	+	-0.022	-5.07	***	-0.014	-3.14	***
SIZE	+	0.001	1.72	*	0.001	1.86	*
LEV	-	-0.001	-0.17		-0.002	-0.26	
LOSS	-	-0.005	-2.00	**	-0.002	-0.70	
AUD	+	-0.001	-0.50		-0.001	-0.40	
GOV	+	0.000	-0.12		-0.002	-0.43	
MBE	+	0.008	6.84	***	0.007	5.18	***
MTB	+	0.002	5.39	***	0.002	5.63	***
Industry and Year		Yes			Yes		
Adj Rsq		52.06%			54.69%		
N		8,563			8,563		

Panel B: Regular non-GAAP exclusions

Regular		MA_SCORE			PRESS		
Variable	Expected Sign	Coefficient	t-statistics		Coefficient	t-statistics	
Intercept	?	0.029906	1.93	*	0.043	2.54	**
TOTALEXCL	-	-0.274306	-2.68	***	-0.137	-2.02	**
REP	+	0.001488	0.16		0.001	1.09	
TOTALEXCL* REP	H2: +	0.218786	0.99		-0.017	-1.12	
NONGAAPEARN	+	0.42329	5.39	***	0.399	3.98	***
EARVOL	-	-0.102166	-0.82		-0.099	-0.94	
POST	?	0.005411	0.71		0.005	0.53	
ACCR	+	0.047993	0.4		-0.014	-0.10	
SALES	+	-0.007039	-1.1		-0.004	-0.53	
SIZE	+	-0.002066	-1.27		-0.002	-1.45	
LEV	-	-0.052685	-3.41	***	-0.074	-3.48	***
LOSS	-	0.002926	0.48		0.000	0.04	
AUD	+	-0.010523	-1.52		-0.006	-0.76	
GOV	+	-0.00053	-0.06		-0.003	-0.27	
MBE	+	0.005633	1.26		0.007	1.42	
MTB	+	0.005246	5.8	***	0.006	5.10	***
Industry and Year		Yes			Yes		
Adj Rsq		45.53%			46.72%		
N		928			928		

Notes:

a. This table presents regressions of future operating earnings on the sporadic exclusions and regular exclusions associated with managerial reputation separately.
b. All variables are defined in Appendix A.
c. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

Table 9 Regression of future OI on managerial reputation (Special items and other items exclusions)

$$OI_{t+1} = \alpha_0 + \beta_1 SPECIAL + \beta_2 OTHERS + \beta_3 REP + \beta_4 SPECIAL*REP + \beta_5 OTHERS*REP + \beta_6 NONGAAPEARN + \beta_7 EARVOL + \beta_8 POST + \beta_9 ACCR + \beta_{10} SALES + \beta_{11} SIZE + \beta_{12} LEV + \beta_{13} LOSS + \beta_{14} AUD + \beta_{15} GOV + \beta_{16} MBE + \beta_{17} MTB + \varepsilon$$

		MA_SCORE			PRESS		
Variable	Expected Sign	Coefficient	t-statistics		Coefficient	t-statistics	
Intercept	?	-0.011	-1.84	*	-0.013	-1.88	*
SPECIAL	-	0.086	1.68	*	0.011	0.32	
OTHERS	-	-0.420	-5.89	***	-0.448	-8.20	***
REP	+	0.004	2.21	**	-0.001	-1.68	*
SPECIAL*REP	+	-0.112	-1.44		0.007	0.84	
OTHERS*REP	H2: +	-0.227	-1.84	*	-0.016	-1.51	
NONGAAPEARN	+	0.741	37.31	***	0.749	33.28	***
EARVOL	-	-0.146	-3.93	***	-0.140	-3.55	***
POST	?	0.008	3.01	***	0.007	2.47	**
ACCR	+	0.082	3.11	***	0.060	2.12	**
SALES	+	-0.018	-5.21	***	-0.013	-3.80	***
SIZE	+	0.001	2.68	***	0.001	2.70	***
LEV	-	-0.003	-0.78		-0.006	-1.36	
LOSS	-	-0.005	-2.23	**	-0.002	-1.00	
AUD	+	-0.001	-0.50		-0.001	-0.46	
GOV	+	-0.004	-1.49		-0.003	-0.95	
MBE	+	0.010	9.90	***	0.008	7.81	***
MTB	+	0.002	6.36	***	0.002	6.63	***
Industry and Year		Yes			Yes		
Adj Rsq		56.70%			58.16%		
N		12,754			12,754		

Notes:

a. This table presents regressions of future operating earnings on the special items exclusions and other exclusions associated with managerial reputation separately.
b. All variables are defined in Appendix A.
c. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

Table 10 Regressions of market reactions to non-GAAP disclosures (Special items and other exclusions)

$$CAR = \alpha_0 + \beta_1 UE + \beta_2 SPECIAL + \beta_3 OTHERS + \beta_4 REP + \beta_5 NEWS + \beta_6 UE*REP*NEWS + \beta_7 SPECIAL*REP*NEWS + \beta_8 OTHERS*REP*NEWS + \beta_9 EARVOL + \beta_{10} POST + \beta_{11} SIZE + \beta_{12} LEV + \beta_{13} LOSS + \beta_{14} AUD + \beta_{15} GOV + \beta_{16} MBE + \beta_{17} MTB + \varepsilon$$

		MA_SCORE		PRESS	
Variable	Expected Sign	Coefficient	t-statistics	Coefficient	t-statistics
Intercept	?	0.014	1.35	0.018	1.55
UE	+	0.350	2.33 **	0.685	4.52 ***
SPECIAL	?	-0.080	-1.91 *	-0.049	-1.31
OTHERS	?	-0.122	-2.08 **	-0.087	-1.74 *
REP	+	-0.004	-1.43	-0.001	-1.45
NEWS	+	0.018	3.55 ***	0.016	2.91 ***
UE*REP*NEWS	H3: +	3.161	6.27 ***	0.203	2.16 **
SPECIAL*REP*NEWS	?	0.072	1.04	0.020	1.76 *
OTHERS*REP*NEWS	?	0.015	0.13	-0.018	-1.65 *
EARVOL	-	0.021	0.53	0.068	1.58
POST	?	-0.008	-2.35 **	-0.005	-1.28
SIZE	-	-0.001	-2.73 ***	-0.002	-3.68 ***
LEV	+	0.007	1.54	0.011	2.06 **
LOSS	-	0.002	0.79	0.004	1.36
AUD	+	0.000	-0.04	0.000	0.06
GOV	+	-0.003	-0.63	-0.004	-0.86
MBE	+	0.010	2.13 **	0.012	2.24 **
MTB	+	0.000	-1.04	0.000	-1.52
Industry and Year		Yes		Yes	
Adj Rsq		5.69%		5.42%	
N		11,929		11,929	

Notes:

a. This table presents regressions of cumulative abnormal returns on the unexpected earnings and the type of exclusions associated with managerial reputation.
b. All variables are defined in Appendix A.
c. *, **, *** indicate 0.10, 0.05, and 0.01 significance levels.

REFERENCES

Allee, K. D., Bhattacharya, N., Black, E. L., & Christensen, T. E. (2007). Pro forma disclosure and investor sophistication: External validation of experimental evidence using archival data. *Accounting, Organizations and Society, 32*(3), 201-222.

Baik, B., Farber, D. B., & Lee, S. (2011). CEO ability and management earnings forecasts. *Contemporary Accounting Research, 28*(5), 1645-1668.

Baik, B., Brockman,P. Farber, D. B., & Lee, S. (2010). CEO reputation and corporate opacity. Working paper, Seoul National University.

Bamber, L. S., Jiang, J. & Wang, I. Y. (2010). What's my style? The influence of top managers on voluntary corporate financial disclosure. *The Accounting Review, 85*(4), 1131-1162.

Bansal, N., A., Seetharaman, & Wang, F. (2013). Managerial risk-taking incentives and non-GAAP earnings disclosures. *Journal of Contemporary Accounting & Economics, 9*(1), 100-121.

Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies. *The Quarterly Journal of Economics, 118*(4), 1169-1208.

Bhattacharya, N., Black, E. L., Christensen, T. E., & Larson, C. R. (2003). Assessing the relative informativeness and permanence of pro forma earnings and GAAP operating earnings. *Journal of Accounting and Economics, 36*(1–3), 285-319.

Bhattacharya, N., Black, E. L., Christensen, T. E., & Mergenthaler, R. D. (2004). Empirical evidence on recent trends in pro forma reporting. *Accounting Horizons, 18*(1), 27-43.

Bhattacharya, N., Black, E. L., Christensen, T. E., & Mergenthaler, R. D. (2007). Who trades on pro forma earnings information? *The Accounting Review, 82*(3), 581-619.

Black, D., Black, E., Christensen, T. & Waegelein, J. (2011). The Effects of executive compensation contracts and auditor effort on pro forma reporting decisions. Working paper, Duke University.

Bowen, R. M., Davis, A. K., & Matsumoto, D. A. (2005). Emphasis on pro forma versus GAAP earnings in quarterly press releases: Determinants, SEC intervention, and market reactions. *The Accounting Review, 80*(4), 1011-1038.

Bradshaw, M. T., & Sloan, R. G. (2002). GAAP versus the street: An empirical assessment of two alternative definitions of earnings. *Journal of Accounting Research, 40*(1), 41-66.

Brown, L. & Sivakumar, K. (2003). Comparing the value relevance of two operating income measures. *Review of Accounting Studies* 8,561-572.

Brown, N. C., Christensen, T. E., & Elliott, W. B. (2012). The timing of quarterly pro forma earnings announcements. *Journal of Business Finance & Accounting, 39*(3-4), 315-359.

Brown, N. C., Christensen, T. E., Elliott, W. B., & Mergenthaler, R. D. (2012). Investor sentiment and pro forma earnings disclosures. *Journal of Accounting Research, 50*(1), 1-40.

Chen, S., Matsumoto, D., and Rajgopal, S., (2011). Is silence golden? An empirical analysis of firms that stop giving quarterly earnings guidance. *Journal of Accounting and Economics*, 51, 134–150.

Chevalier, J., & Ellison, G. (1999). Are some mutual fund managers better than others? Cross-sectional patterns in behavior and performance. *The Journal of Finance, 54*(3), 875-899.

Curtis, A., McVay, S.E., & Whipple, B.C., (2013). The disclosure of non-GAAP earnings information in the presence of transitory gains. *The Accounting Review*, Forthcoming.

Demerjian, P., B. Lev, & McVay S. (2012). Quantifying managerial ability: A new measure and validity tests. *Management Science*, 58(7), 1229-1248.

Demerjian, P., M. Lewis, B. Lev, & McVay S. (2013). Managerial ability and earnings quality. *The Accounting Review*, 88 (2), 463–498

Desai, H., Hogan, C. E., & Wilkins, M. S. (2006). The reputational penalty for aggressive accounting: Earnings restatements and management turnover. *The Accounting Review, 81*(1), 83-112.

Doyle, J., R. Lundholm, & Soliman, M. (2003). The predictive value of expenses excluded from 'pro forma' earnings. *Review of Accounting Studies* 8, 145-174.

Englmaier, F., Filipi, A., & Singh, R. (2010). Incentives, reputation and the allocation of authority. *Journal of Economic Behavior & Organization, 76*(2), 413-427.

Entwistle, G., Feltham, G., & Mbagwu, C., (2006). Financial reporting regulation and the reporting of pro forma earnings. *Accounting Horizons,* 20, 39–55.

Entwistle, G., Feltham, G., & Mbagwu, C., (2010). The value relevance of alternative earnings measures: A comparison of pro forma, GAAP, and I/B/E/S earnings. *Journal of Accounting, Auditing & Finance, 25*(2), 261-288.

Entwistle, G. M., Feltham, G. D., & Mbagwu, C. (2012). Credibility attributes and investor perceptions of non-GAAP earnings exclusions. *Accounting Perspectives, 11*(4), 229-257.

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy, 88*(2), 288-307.

Finkelstein, S., & Hambrick, D. C. (1996). Top executives and their effects on organizations. St. Paul, MN: West Publishing.

Francis, J., Huang, A. H., Rajgopal, S., & Zang, A. Y. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research, 25*(1), 109-147.

Francis, J., D. J. Nanda, & P. Olsson. (2008). Voluntary disclosure, earnings quality, and cost of capital. *Journal of Accounting Research,* 46, 53-100.

Frankel, R., McVay, S., & Soliman, M. (2011). Non-GAAP earnings and board independence, *Springer Netherlands*.

Garvey, G., & Milbourn, T. (2003). Incentive compensation when executives can hedge the market: Evidence of relative performance evaluation in the cross section. *The Journal of Finance, 58*(4), 1557-1581.

Gibbons, R., & Murphy, K. J. (1992). Optimal incentive contracts in the presence of career concerns: Theory and evidence. *Journal of Political Economy, 100*(3), 468-

505.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics, 40*(1), 3-73.

Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology, 82*(5), 929-964.

Heflin, F., & Hsu, C. (2008). The impact of the SEC's regulation of non-GAAP disclosures. *Journal of Accounting and Economics, 46*(2–3), 349-365.

Heckman, J. J. 1979. Sample selection bias as a specification error. *Econometrica* 47, 153-161.

Holthausen, R. W. (1990). Accounting method choice: Opportunistic behavior, efficient contracting, and information perspectives. *Journal of Accounting and Economics, 12*(1–3), 207-218.

Huston, F.J., Lev, B. and Tucker W.J. (2010). To guide or not to guide? Causes and consequences of stopping quarterly earnings guidance. *Contemporary Accounting Research,* 27(1), 143–185.

Isidro, H., & Marques, A. (2009). Beating strategic earnings benchmarks with non-GAAP figures: International evidence. Working paper, City University London.

Isidro, H., & Marques, A. (2013). The effects of compensation and board quality on non-GAAP disclosures in Europe. *The International Journal of Accounting,* 48, 289-317.

Jennings, R., (1987). Unsystematic security price movements, management earnings forecasts, and revisions in consensus analyst earnings forecasts. *Journal of Accounting Research*, 25, 90-110.

Jennings, R., & Marques, A. (2011). The joint effects of corporate governance and regulation on the disclosure of manager-adjusted non-GAAP earnings in the US. *Journal of Business Finance & Accounting, 38*(3-4), 364-394.

Jennings, R. & Wang, X. (2011). Does Accounting conservatism affect capital market demand for value relevant information? Evidence from voluntary disclosure of non- GAAP earnings. Working paper, University of Texas at Austin.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.

Johnson, W.B. and Schwartz, W.C. (2005) Are investors misled by "pro forma" earnings? *Contemporary Accounting Research*, 22(4), 915–963.

Johnson, W. B., Young, S. M., & Welker, M. (1993). Managerial reputation and the informativeness of accounting and market measures of performance. *Contemporary Accounting Research, 10*(1), 305-332.

Karuna,C. (2009). Managerial Reputation and the Use of Earnings in Performance Evaluation. Working paper, University of California at Irvine.

Koh, K. (2011). Value or glamour? An empirical investigation of the effect of celebrity CEOs on financial reporting practices and firm performance. *Accounting & Finance, 51*(2), 517-547.

Kolev, K., C. Marquardt, & McVay, S. E. (2008). SEC scrutiny and the evolution of non-GAAP reporting. *The Accounting Review* 83, 157-184.

Lee, S. (2007). CEO Reputation: Who benefits – the Firm or the CEO? Ann Arbor (MI): Leventhal School, ProQuest Information and Learning Company.

Lougee, B. A., & Marquardt, C. A. (2004). Earnings informativeness and strategic disclosure: An empirical examination of "pro forma" earnings. *The Accounting Review, 79*(3), 769-795.

MacLeod,W.B., & Malcomson, J.M. (1988). Reputation and hierarchy in dynamic models of employment. *The Journal of Political Economy,* 96, 832–854.

Malmendier, U., & Tate, G. (2009). Superstar CEOs. *The Quarterly Journal of Economics, 124*(4), 1593-1638.

Marques, A. (2006). SEC interventions and the frequency and usefulness of non-GAAP financial measures. *Review of Accounting Studies, 11*(4), 549-574.

Marques, A. (2010). Disclosure strategies among S&P 500 firms: Evidence on the disclosure of non-GAAP financial measures and financial statements in earnings press releases. *The British Accounting Review, 42*(2), 119-131.

McVay, S. E. (2006). Earnings management using classification shifting: An examination of core earnings and special items. *The Accounting Review, 81*(3), 501-531.

Mercer, M. (2004). How do investors assess the credibility of management disclosures? *Accounting Horizons, 18*(3), 185-196.

Milbourn, T. T. (2003). CEO reputation and stock-based compensation. *Journal of Financial Economics, 68*(2), 233-262.

Park, D., & Berger, B. K. (2004). The presentation of CEOs in the press, 1990-2000: Increasing salience, positive valence, and a focus on competency and personal dimensions of image. *Journal of Public Relations Research, 16*(1), 93-123.

Petersen, M., (2009). Estimating standard errors in finance panel data sets: comparing approaches. *Review of Financial Studies*, *22*(1), 435–480.

Rajgopal, S., Shevlin, T., & Zamora, V. (2006). CEOs' outside employment opportunities and the lack of relative performance evaluation in compensation contracts. *The Journal of Finance, 61*(4), 1813-1844.

Skinner, D.J, (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32, 38-60.

Trueman, B. (1986). Why do managers voluntarily release earnings forecasts? *Journal of Accounting and Economics, 8*(1), 53-71.

United States Securities and Exchange Commission. (2003). Final rule: conditions for use of non-GAAP financial measures. Securities and Exchange Commission Release Nos. 3-8176, 34-47226, FR-65, File No. S7-43-02. Retrieved from http://ww.sec.gov/rules/final/33-8176.htm.

Vincent, L. (1999). The information content of funds from operations (FFO) for real estate investment trusts (REITs). *Journal of Accounting and Economics, 26*(1–3), 69-104.

Wade,J.B., Porac, J.F., Pollock, T.G., & Graffin S.D. (2006). The burden of celebrity: The impact of CEO certification contests on CEO pay and performance. *Academy of Management Journal,* 49, 643–660.

Yi, H. S. (2006). Has regulation G improved the information quality of non-GAAP earnings disclosures? (Ph.D., Michigan State University). *ProQuest Dissertations and Theses*.