

**Essays on Corporate Behavior: Managerial Discretion and the
Disclosure of Financial Misstatements**

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“When in doubt tell the truth. It will confound your enemies and astound your friends.”

– Mark Twain

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Abstract of the Dissertation

Essays on Corporate Behavior: Managerial Discretion and the Disclosure of Financial Misstatements

In response to a series of high profile financial accounting scandals, regulations were passed to create a uniform reporting environment for publicly traded companies. Although the intent of these regulations is to require firms to release value relevant information in a prominent and timely fashion, guidance provided by regulators subsequent to their issuances seems to have created loopholes. Some issuers have interpreted this to mean that they are not always required to file a statement of non-reliance when disclosing a financial accounting restatement. This loose interpretation gives rise to so-called “stealth restatements” which are instances when restated financials are disclosed only in a periodic filing with the SEC.

The first chapter analyzes the decision to file a stealth restatement. Using data from 2000 – 2010, I identify a variety of factors that are associated with the decision to file a stealth restatement. The models control for a number of factors previously used to explain financial restatements. I find that internal and external corporate governance mechanisms are significantly associated with the decision to file a stealth restatement. I also find that restatement specific factors such as materiality or the number of reporting periods affected influence misstatement disclosure source. I am unable to conclude that management is acting strategically in selecting where to disclose misstatements but offer several caveats and alternative explanations.

The second chapter analyzes how managerial compensation affects the decision to file stealth restatements. I argue that the attenuated market response to stealth restatements provides management with an incentive to circumvent SEC disclosure requirements because it preserves the value of equity grants. Contrary to my expectations, I find that options wealth is negatively associated with the decision to file stealth restatements. However, I find that this association is nonlinear suggesting that managerial compensation contracts need to be constructed carefully in order to align managerial and stakeholder interests. This result is important and has implications for the broader academic literature on managerial compensation and aggressive financial reporting practices.

The third chapter analyzes how factors that are associated with the decision to file a stealth restatement change in response to the various disclosure regimes mandated by the SEC. The SEC first tried to eliminate the practice of filing stealth restatement in August 2004. Some years later, the SEC was advised to eliminate the practice once and for all. Still, the practice of filing stealth restatements persists. I find that the predictive value of the estimated models declines with each effort to strengthen the disclosure requirements. In the most recent portion of the analyzed sample, I am unable to distinguish between issuers that elect to file stealth restatements and those that file Form 8-K. Despite efforts to the contrary, this result resembles a “race to the bottom” and has important implications for financial reporting quality.

Table of Contents

Acknowledgements	v
Abstract of the Dissertation	vi
Table of Contents	viii
List of Figures	x
List of Tables	xi
Overview	1
1 Away from Prying Eyes: Why do Issuers File Stealth Restatements?	6
1.1 Introduction	7
1.2 Related Literature and Hypotheses	9
1.3 Data and Methodology	33
1.4 Results	50
1.5 Conclusion.....	57
References	59
Appendix 1A: Discretionary Accruals Models	66
2 To Deter or not to Deter? Managerial Compensation and Aggressive Financial Reporting	68
2.1 Introduction	70
2.2 Related Literature and Hypotheses	72
2.3 Data and Methodology	80

2.4 Results	82
2.5 Conclusion.....	89
References	91
3 Unwelcome Change: Issuer Response to SEC Guidance on Misstatement	
Disclosure.....	94
3.1 Introduction	95
3.2 Related Literature and Hypotheses	98
3.3 Data	107
3.4 Results	109
3.5 Conclusion.....	116
References	119

List of Figures

Figure 1.1: Number of Financial Restatements by Year and Disclosure Type	34
Figure 1.2: Histogram of CARs Using the CAPM and S&P 500 Benchmark.....	37
Figure 1.3: Lorenz Curve for the Logistic Model	56
Figure 2.1: Rate of Stealth Restatements by Quintiles of Executive Options.....	87

List of Tables

Table 1.1: Number of Annual Financial Restatements by 2-Digit SIC Code	35
Table 1.2: Tests for Differences in the Market Reaction to Restatement Announcements Based on Disclosure Type: Lorenz Curve for the Logistic Model	36
Table 1.3: Variable Definitions	39
Table 1.4: Descriptive Statistics for the Audit Committee, Board of Directors and Inside Ownership Data	40
Table 1.5: Descriptive Statistics for the ICFR Dummy Variable	41
Table 1.6: Descriptive Statistics for the Governance Index Variable	41
Table 1.7: Descriptive Statistics for the Institutional Ownership Data	42
Table 1.8: Descriptive Statistics for the Litigation Data	42
Table 1.9: Descriptive Statistics for the Analyst Coverage Data	43
Table 1.10: Descriptive Statistics for the Market Pressures Data	45
Table 1.11: Descriptive Statistics for the Big 4 Auditor and Audit Fees Data	47
Table 1.12: Descriptive Statistics for the Discretionary Accruals Estimates and Composite Measures	48
Table 1.13: Descriptive Statistics for the Restatement Specific Factors	49
Table 1.14: Univariate Analyses	51
Table 1.15: Logistic Regression Analyses	55
Table 2.1: Descriptive Statistics	81

Table 2.2: Univariate Analyses	83
Table 2.3: Multivariate Analyses	84
Table 2.4: Percentage of Stealth Restatements by Quintiles of Executive Options Wealth Analyses.....	86
Table 2.5: Spline Regression Analysis.....	88
Table 3.1: Number of Restatements by Type and Regulation Status.....	108
Table 3.2: Univariate Analyses	110
Table 3.3: Multivariate Analyses	113

Overview

Congress passed the Sarbanes-Oxley Act of 2002 (SOX) in response to a series of high profile financial accounting scandals. Section 409 of SOX requires companies with publicly traded securities (issuers) to disclose value relevant information on a timely basis. To implement SOX §409, the SEC issued Rule 33-8400 which increased the number of events that are required to be reported on Form 8-K under the Securities Exchange Act of 1934.

One of the intentions of mandatory disclosure policies such as Rule 33-8400 is to create a uniform financial reporting environment for issuers by requiring them to disclose value relevant information in a prominent and timely fashion. This objective is consistent with the SEC's adoption of Regulation Fair Disclosure (FD) which is designed to address the selective disclosure of material nonpublic information and enhance existing prohibitions against insider trading. However, guidance provided by regulators subsequent to the issuance of Rule 33-8400 seems to have created loopholes which some issuers have interpreted to mean that they are not always required to file a statement of non-reliance when disclosing a financial accounting restatement. This loose interpretation gave rise to so-called "stealth restatements" which are instances when restated financials are disclosed only in a periodic filing with the SEC.

This dissertation provides insight into corporate behavior by analyzing factors associated with the decision to file stealth restatements. Analyzing the decision to file a stealth restatement provides unique insight into corporate behavior because of the strategic motivations issuers may have for suppressing news of financial misstatements. In particular, extant research documents a significant, negative market reaction to

restatement disclosures (Palmrose et al., 2004). However, this result does not hold for issuers electing to file stealth restatements (see Swanson et al., 2007; Plumlee and Yohn, 2008; and Myers et al., 2010). The attenuated market response to stealth restatements may provide management with a strategic incentive to file stealth restatements.

Although filing stealth restatements may allow issuers to avoid a punitive market response it raises the possibility of being sanctioned by the SEC. Analyzing this decision provides important insight into managerial decision making because of the implicit cost benefit analysis management performs when electing a source to disclose misstatements. That is, management must weigh the costs associated with a negative market reaction against the likelihood that they may be sanctioned by the SEC. Identifying specific factors that are associated with the decision to file stealth restatements provides insight into which factors management values most; perhaps even more than potential penalties stemming from SEC enforcement.

The first chapter of this dissertation identifies a number of factors that appear to be important in determining where managers choose to disclose misstatements. I begin by reproducing results about the de minimis market response from disclosing stealth restatements identified in previous research. Although stakeholders may find the lack of market response to stealth restatements to be desirable, thus providing management with a strategic incentive to file stealth restatements, I argue that stealth restatements are risky because they do not adhere to SEC regulations. Violating SEC regulations increases the probability that the SEC will pursue enforcement actions and threatens the long-term viability of the company. Because of this, I assume that stealth restatements are not in the best interests of stakeholders.

I analyze a number of factors that management may consider when choosing their misstatement disclosure source including: corporate governance factors, market based factors and restatement specific factors. I find that several components of these factors are associated with the decision to file a stealth restatement. I conclude by discussing limitations of the model and offer alternative explanations about why issuers file stealth restatements.

The second chapter of this dissertation analyzes how managerial compensation affects misstatement disclosure source. There is a significant body of literature on managerial compensation and aggressive financial reporting. Although there may be a preponderance of evidence to suggest that some types of managerial compensation may encourage aggressive financial reporting, the results from this literature are highly nuanced and seem to depend importantly on the types of compensation analyzed and how the models are operationalized.

A number of papers have found an association between measures of options wealth and aggressive financial reporting. These papers typically analyze the difference between managerial options wealth in restating companies vis-à-vis a control group of non-restating companies. Although this provides insight into which factors contribute to aggressive financial reporting, these papers leave an important question unanswered: Once financial misreporting is detected, does management “come clean” or do they continue to “push the envelope?”

Given that the timing of a restatement cannot necessarily be controlled by management (i.e. management does not know when an outsider, such as an analyst, auditor, or regulator, will discover the misstatement), analyzing the source of

misstatement disclosures provides insight into managerial behavior once a misstatement is detected. Once financial misreporting must be disclosed, management has two options: Management can “come clean” and file Form 8-K, thereby publicly alerting the market, or management can “push the envelope” and continue to try to suppress news of the misstatement. Because the attenuated market response to stealth restatements provides management with a means to preserve the value of their options wealth once a misstatement is detected and disclosed, choosing to file a stealth restatement represents a revealed preference. Managers electing to file stealth restatements may be choosing to preserve the value of their options wealth rather than conform to SEC regulations.

After controlling for factors identified in Chapter 1 of this dissertation, I find that the value of in-the-money, exercisable options is negatively associated with the decision to file a stealth restatement. If stealth restatements truly are risky from a regulatory perspective, this result suggests that options are successful at aligning managerial and stakeholder interests. However, additional analyses indicate that there is a nonlinear relationship between options wealth and the decision to file stealth restatements. This result suggests that managerial compensation contracts need to be constructed carefully in order to align managerial and stakeholder interests.

The third chapter of this dissertation analyzes how factors associated with the decision to file a stealth restatement change over time in response to changes in the regulatory environment regarding the disclosure of financial misstatements. The analyzed sample comprises restatements disclosed between 2000 and 2011. During the sample period, the regulations and guidance for disclosing financial misstatements were changed several times. The issuance of Rule 33-8400 represents the first regime change for

misstatement disclosures. Ostensibly, Rule 33-8400 prohibits stealth restatements as it requires issuers to file Form 8-K within four business days of concluding that previously issued financial statements should no longer be relied upon. However, the SEC provided guidance subsequent to the issuance of Rule 33-8400 that seems to have relaxed this requirement. The SEC later provided additional guidance that should have prohibited filing stealth restatements by requiring issuers to file Form 8-K for all misstatements. I find that factors associated with the decision to file stealth restatements change in response to changes in the financial reporting environment. In the most recent portion of the sample, I am unable to distinguish between issuers that elect to file stealth restatements and issuers that file more prominent restatement disclosures. This result is consistent with standards creep described in Dye (2002) and should be of interest to regulatory agencies.

Chapter 1

Away from Prying Eyes: Why do Issuers File Stealth Restatements?

Abstract

In response to a series of high profile financial accounting scandals, regulations were passed to create a uniform reporting environment for publicly traded companies. Although the intent of these regulations is to require firms to release value relevant information in a prominent and timely fashion, guidance provided by regulators subsequent to their issuances seems to have created loopholes. Some issuers have interpreted this to mean that they are not always required to file a statement of non-reliance when disclosing a financial accounting restatement. This loose interpretation gives rise to so-called “stealth restatements” which are instances when restated financials are disclosed only in a periodic filing with the SEC.

This paper analyzes the decision to file a stealth restatement. Using data from 2000 – 2010, I identify a variety of factors that are associated with the decision to file a stealth restatement. The models control for a number of factors previously used to explain financial restatements. I find that internal and external corporate governance mechanisms are significantly associated with the decision to file a stealth restatement. I also find that restatement specific factors such as materiality or the number of reporting periods affected influence misstatement disclosure source. I am unable to conclude that management is acting strategically in selecting where to disclose misstatements but offer several caveats and alternative explanations.

“Truth being truth,/ Tell it and shame the devil.” – Robert Browning

1.1 Introduction

Congress passed the Sarbanes-Oxley Act of 2002 (SOX) in response to a series of high profile financial accounting scandals. Section 409 of SOX requires companies with publicly traded securities (issuers¹) to disclose value relevant information on a timely basis. To implement SOX §409, the SEC issued Rule 33-8400 which increased the number of events that are required to be reported on Form 8-K under the Securities Exchange Act of 1934.² Specifically, Item 4.02, “Non-Reliance on Previously Issued Financial Statements or a Related Audit Report or Completed Interim Review” (statement of non-reliance), on Form 8-K is to be filed within four business days after concluding that previously issued financial statements should no longer be relied upon because of an error in financial reporting of the kind addressed in Accounting Principles Board Opinion No. 20.

Although the intent of Rule 33-8400 is to require issuers to release value relevant information in a prominent and timely fashion, guidance provided by regulators subsequent to its issuance seems to have created loopholes which have been interpreted to mean that issuers are not always required to file Form 8-K when disclosing a financial restatement (Turner and Weirich, 2006). This loose interpretation of Rule 33-8400 gave

¹ As defined in SOX, “The term ‘issuer’ means an issuer (as defined in section 3 of the Securities Exchange Act of 1934 (15 U.S.C. 78c)), the securities of which are registered under section 12 of that Act (15 U.S.C. 78l), or that is required to file reports pursuant to section 15(d) of that Act (15 U.S.C. 78o(d)), or that will be required to file such reports at the end of a fiscal year of the issuer in which a registration statement filed by such issuer has become effective pursuant to the Securities Act of 1933 (15 U.S.C. 77a et. seq.), unless its securities are registered under section 12 of the Securities Exchange Act of 1934 (15 U.S.C. 78c) on or before the end of such fiscal year.”

² From the SEC website, “Form 8-K is the “current report” companies must file with the SEC to announce major events that shareholders should know about.” (Available at <http://www.sec.gov/answers/form8k.htm>)

rise to what Glass-Lewis & Co. (2006) called “stealth restatements” which are instances when restated financials are disclosed only in a periodic filing with the SEC (i.e. Forms 10-K or 10-Q).

By construction, stealth restatements suppress information from market participants (Hee and Chan, 2010). This lack of easily available information inhibits price discovery because market participants are less able to incorporate the information into their expectations about issuer performance (Hirshleifer and Teoh, 2003). Previous research supports the limited attention argument and finds a significant difference between the market reaction to restatement announcements after controlling for the source of the restatement (see Swanson et al., 2007; Plumlee and Yohn, 2008; or Myers et al., 2010). Given the negative connotation associated with financial restatements, management may have a strategic motivation in selecting the source of a restatement announcement.³

The purpose of this paper is to identify factors that are associated with the decision to file a stealth restatement. I argue that the diminished market response to filing stealth restatements relative to more prominent restatement disclosures provides managers with an incentive to suppress news of the restatement announcement. Although stakeholders may benefit in the short-run from the attenuated market response to stealth restatements, I assume throughout this paper that stealth restatements are risky because they do not adhere to SEC disclosure regulations. Violating these regulations increases the probability that the SEC will pursue an enforcement action and threatens the long-term viability of the company.

³ Even if the restatement leads to an increase in net income, there is still a negative market reaction to the restatement announcement (Palmrose et al., 2004).

Using data from 2000 – 2011, I identify a variety of factors that are associated with the decision to file a stealth restatement. The models control for factors previously used to explain restatements including: demand for external financing, accounting losses, growth in earnings per share, leverage and materiality as measured by the change in net income. I find that several factors are associated with the decision to file a stealth restatement. These factors include: corporate governance factors, market based factors and restatement specific factors. I am unable to conclude that management is acting strategically in selecting where to disclose misstatements but offer several caveats and alternative explanations.

1.2 Related Literature and Hypotheses

Financial restatements have attracted considerable attention in both the finance and accounting literature. Eilifsen and Messier (2000) identify four conditions that must be met for audited financial statements to be subsequently restated. First, a material misstatement occurs as a result of an error or omission (e.g., aggressive accounting practices, misapplication of GAAP, personnel problems, etc.). Second, the misstatement is not prevented by the issuers' internal controls. Third, the external auditor fails to detect the misstatement and the financial statements are issued. Finally, the misstatement is subsequently discovered and, if deemed material, requires a restatement and re-issuance of the corrected financial statements. One of the most salient features of a restatement is the subsequent effect on the issuer's cost of capital. Palmrose et al. (2004) document a significant negative market reaction to public restatement announcements. The authors also find that issuers that disclose restatements without providing adequate information about the magnitude of the misstatement or the accounts involved experience returns that

are significantly more negative. This suggests that the market further penalizes issuers employing opaque or incomplete disclosure policies. Extending this result to issuers that elect to use stealth restatements to correct previously issued financials implies that these issuers should experience significant negative market reactions once the corrected financials are filed.

Several papers have analyzed the market response to restatements after controlling for the source of the announcement. Swanson et al. (2007) find that the magnitude of cumulative abnormal returns (CARs) depends on the source of the disclosure. Although issuers that disclose restatement announcements in high profile sources, such as a press release or Form 8-K, experience significant negative market returns, the magnitude of the returns decreases with the prominence of the disclosure. For issuers filing stealth restatements, the authors find that the CARs are not significantly different from zero. Interestingly, Swanson et al. also find that issuers with stealth restatements are less likely to face litigation resulting from the restatement. This may be because securities class action suits are typically filed after a sudden and significant decline in share price (Phillips and Miller, 1996). Without demonstrable damages resulting from a stealth restatement, it would be more difficult for shareholders to receive favorable judgments.

The attenuated market response to stealth restatements is confirmed in other papers: however, the motivation for restating without filing Form 8-K is still contested. Plumlee and Yohn (2008) conclude that issuers are strategic in their decision to file Form 8-K, but do not find evidence that stealth restatements are attempts to reduce investor awareness. Myers et al. (2010) find that the materiality of the restatement is a factor in

determining the choice of disclosure, but also find that issuers with greater outside monitoring are more likely to disclose restatements in high profile sources.

I argue that the lack of a market response to stealth restatements may provide a strategic motivation to avoid filing Form 8-K. If the market becomes aware that previously issued financial statements are inaccurate, executives may be forced to issue a restatement. Although the timing of a restatement cannot fully be controlled by management, the source of the restatement announcement is a choice if management is willing to take advantage of a loophole in, or lax enforcement of, Rule 33-8400. By not filing Form 8-K, management may be able to avoid the negative effects associated with restatement announcements. Previous literature offers competing explanations about why issuers file stealth restatements; however, several potential explanations have yet to be explored. The purpose of this paper is to identify specific factors that may influence executives' decisions to file stealth restatements.

Corporate Governance

Corporate governance refers to a set of mechanisms, both internal and external, that are designed to influence the decisions of management in an effort to mitigate conflicts of interest between managers and stakeholders. Much of the corporate governance literature examines the effects of these mechanisms on the ex-ante ability of management to raise external capital and the subsequent effects on firm performance.⁴ However, the accounting scandals of the early 21st Century were attributed, at least in part, to weaknesses in corporate governance that allowed managerial self-dealings and frauds to go undetected for prolonged periods of time. To address these weaknesses, SOX includes a number of provisions that are designed to bolster corporate governance and

⁴ See Shleifer and Vishny (1997) for a comprehensive survey of the corporate governance literature.

reduce the likelihood of corporate misconduct (Chhaochharia and Grinstein, 2007). These provisions include: required independence of audit committees, CEO and CFO attestation of financial statements, the establishment of procedures to test and maintain internal controls over financial reporting (ICFR⁵) and stricter penalties for managers convicted of corporate fraud (see SOX, 2002).

Although the necessity and efficacy of SOX have been challenged,⁶ recent work has linked corporate governance with a wide variety of accounting irregularities including: earnings management (Chtourou and Bedard, 2001), discretionary accruals (Larcker et al., 2007), restatements (Agrawal and Chadha, 2005; and Larcker et al., 2007) and fraud (Beasley, 1996; Farber, 2005; and Rezaee, 2005).

Internal Governance Mechanisms

Agrawal and Chadha (2005) find limited evidence that the corporate governance characteristics addressed in SOX are correlated with financial restatements. Using a sample of US companies that issued a restatement between 2000 and 2001, the authors find little evidence that the independence of the board of directors and the independence of audit committees are correlated with financial restatements. However, Agrawal and Chadha do find a decrease in the likelihood of a restatement if there are independent financial experts serving on the board of directors and audit committees. Larcker et al. (2007) argue that previous research on corporate governance topics has yet to produce a set of consistent results. The authors attribute this lack of consensus to potential

⁵ Internal control over financial reporting is defined as “a process... to provide reasonable assurance regarding the reliability of financial reporting” (PCAOB, 2013). Internal control refers to a variety of mechanisms ranging from the “tone” of management regarding integrity and ethics to the adequacy of IT systems and processes to the physical security of accounts and equipment.

⁶ Romano (2005) provides arguments and references to a number of papers that challenge the link between corporate governance and accounting irregularities.

weaknesses associated with using structural measures of corporate governance to explain accounting outcomes or firm performance. To address this concern, Larcker et al. estimate a principal components model derived from a broad set of structural corporate governance factors. Despite identifying a list of specific factors, the authors find little evidence that corporate governance characteristics are correlated with financial restatements.

Beyond the papers analyzing corporate governance and financial restatements, there is a broader literature that examines the effects of corporate governance mechanisms on deterring fraud and/or analyzing subsequent firm performance. Given the potential strategic motivations for filing stealth restatements, this stream of literature may be more relevant because it considers the efficacy of corporate governance mechanisms in constraining derelictions of management's fiduciary duties. Beasley (1996) finds that the number of outsiders on the board of directors is negatively related to incidences of fraud. Although Beasley does not find the presence of an audit committee is related to fraudulent financial reporting, he concludes that corporate governance mechanisms such as independent boards and the level of outside stock ownership are successful deterrents of intentional fraudulent financial reporting. Farber (2005) finds that board composition and the presence of financial experts are negatively correlated with fraudulent financial reporting as indicated by the issuance of an AAER. Interestingly, Farber also finds that issuers accused of fraud subsequently take actions to improve their corporate governance resulting in above-average stock price performance.

The audit committee plays a significant role in the financial reporting process. Although SOX §301 forbids national stock exchanges from listing issuers that do not

comply with mandated audit committee independence characteristics,⁷ concerns about the independence of audit committees prompted listing requirements and other regulations long before its implementation.

Although compensation is one of the criteria used for characterizing independence, minimal guidance has been provided about the level or types of compensation that help to maintain independence. A National Association of Corporate Directors report (henceforth, NACD, 2001) argues that alignment with long-term shareholder interests and motivational factors should be considered when setting director compensation contracts. To accomplish these goals, NACD (2001) recommends that at least half of director compensation be in the form of equity. In general, audit committee compensation has increased with the levels of responsibility and accountability attributed to the roles (Archambeault et al., 2008). At the same time, the mix of director compensation has shifted away from cash towards equity. Despite the potential for equity grants to promote deleterious behavior and decisions,⁸ there are no restrictions related to the personal share holdings of audit committee members (Barrier, 2002).

Evidence about the effects of audit committee compensation and financial reporting failures is limited. Sharma and Iselin (2006) do not find evidence that restatements are correlated with the use of stock options in audit committee compensation. Archambeault et al. (2008) extend the literature and find a significant correlation between restatements and option grants once the values of the grants are controlled for regardless of the length of the vesting period. Both Sharma and Iselin and

⁷ For a description of the audit committee independence characteristics, see <http://www.sec.gov/rules/final/33-8220.htm#audit>.

⁸ Armstrong et al. (2010) provides a summary of the recent literature on managerial compensation and aggressive financial reporting.

Archambeult et al. focus on the use of options in audit committee compensation. I have not identified a paper that looks at restatements as a function of the personal stock holdings of the audit committee.⁹

As the level of personal stock holdings increases, it should align the incentives of the board of directors and audit committee members with other stakeholders. Because issuer performance and cost of capital are affected by disclosure quality (Lambert et al., 2007), the alignment of audit committee and stakeholder incentives should result in improved financial reporting quality and decrease the likelihood of misstatement. Equity grants should also induce the board of directors and audit committee to take actions that promote the long-term viability of the company because their wealth is tied to future performance. Both of these effects should decrease the likelihood of filing a stealth restatement.

Hypothesis 1: The decision to file a stealth restatement is negatively associated with the independence of the board of directors.

Hypothesis 2: The decision to file a stealth restatement is negatively associated with the independence of the audit committee.

ICFR Opinions

SOX Sections 302 and 404 relate to the issuer's internal control over financial reporting (ICFR) and were among the more contentious aspects of SOX. Section 302 requires managers to establish, maintain, and evaluate their ICFR. Section 404 requires an independent auditor to attest to management's report on ICFR. By definition, effective

⁹ In a related paper, Carcello and Neal (2003) find that audit committees with lower stock holdings are less likely to dismiss auditors after receiving a going concern report. This may suggest that increased levels of stock ownership impair audit committee independence.

ICFR is intended to provide reasonable assurance about the reliability of an issuer's financial statements and the process for preparing those statements.

A large body of research about ICFR has been developed since the implementation of SOX. Although some of the research has been critical of the additional costs attributed to SOX, other papers have identified significant improvements in financial reporting quality that may stem from improvements in ICFR.¹⁰ Bryan and Lilien (2005) find that a significant percentage of the issuers in their sample subsequently restate their financial results due to the material weaknesses identified in their ICFR opinions. The negative relationship between ICFR and restatements is confirmed in Feng and Li (2010) who also find that issuers with ineffective ICFR opinions ultimately issue a restatement in a timelier manner. Epps and Mitler (2011) extend the literature and find that issuers with ineffective ICFR opinions are significantly more likely to restate the fiscal period for which the ineffective ICFR opinion was received. The authors find that this result holds regardless of whether the opinion was preceded by a restatement which highlights the incremental value of an ICFR opinion.

Effective ICFR decreases the likelihood of financial misstatement. Effective ICFR also limits the extent to which management can override accounting controls. As a result, effective ICFR should constrain management's ability to file a stealth restatement because an independent audit committee will be proactively involved with the financial

¹⁰ Grundfest and Bochner (2007) provide a summary of papers that find that there are significant and unnecessary costs associated with implementing section 404 of SOX. At the same time, there are a number of papers that document the positive effects of 404 including the identification of accounting misstatements, improvements in financial reporting quality and market reactions to negative 404 disclosures (see Nagy, 2010; Bizarro et al., 2011; Doyle et al., 2007; Zhang, 2008; and Li and Wang, 2006).

reporting process. This suggests that managers of companies with effective ICFR may have decreased ability to file a stealth restatement.

Hypothesis 3: The decision to file a stealth restatement is negatively associated with an effective ICFR opinion.

External Governance Mechanisms

Regulations about the composition of the board of directors and audit committee are designed to ensure the presence of outsiders and independents whose interests should be more closely aligned with stakeholders. However, other corporate governance mechanisms can have the opposite effect and make it difficult for stakeholders to have their interests recognized or enforced. Among other things, corporate bylaws and charter provisions delineate shareholder rights with respect to their ability to remove managers. Provisions such as staggered boards, supermajority requirements or golden parachutes can make it difficult to remove managers because they increase the time and/or cost of removing managers.

Entrenchment allows managers to expropriate stakeholder wealth by making it difficult to remove managers who are not delivering high performance (Shleifer and Vishny, 1989). The costs of managerial entrenchment can be difficult to quantify, but it has been argued that poorly performing managers who resist being replaced might be the costliest manifestation of the agency problem (Jensen and Ruback, 1983). Much of the literature on managerial entrenchment and issuer performance adopts an event-study methodology that analyzes the market reaction to the announcement of a governance provision.¹¹ However, difficulties associated with identifying a precise window of

¹¹ For surveys of this literature, see Bhagat and Romano (2002), Bittlingmayer (2000), Comment and Schwert (1995), and Karpoff and Malatesta (1989).

analysis may imply that event-studies are not able to capture accurately the effects of adopting a governance provision (Coates, 2000). To overcome this issue, Gompers, Ishii and Metrick (2003, henceforth GIM) create an index that measures restrictions on shareholder rights and then analyze issuer performance over a 10-year period. Their index is constructed by simply summing the number of provisions that decrease shareholder rights and subtracting the number of provisions that increase shareholder rights. GIM find that issuers in the least restrictive decile significantly outperformed issuers in the most restrictive decile during the period 1990-1999. The authors also find some evidence that restrictions on shareholder rights caused some issuers to underperform and were correlated with excessive capital expenditures and value destroying acquisitions.

A number of authors have used the GIM index, and its related variants,¹² to analyze the effects of external governance mechanisms on managerial accounting discretion. Fu and Liu (2007) find that issuers with higher levels of anti-takeover provisions (ATPs) are more likely to provide earnings forecasts. Fu and Liu also find that ATPs are negatively correlated with the use of discretionary accruals suggesting an improvement in earnings quality. The authors conclude that the inclusion of ATPs allows managers to disclose more private information by shielding them from short-term market pressures, especially if they have to disclose negative news.

By insulating management from short-term market pressures, ATPs could reduce managerial myopia (Stein, 1988). This could allow managers to focus on long-term value creation for stakeholders. Conversely, lack of external pressure and oversight implies that management has little incentive to establish accounting control procedures resulting in an

¹² See Cremers and Nair (2005) or Bebhuk et al. (2008).

increased risk of financial misstatement. Barber et al. (2009) find that misreporting is more prevalent in issuers with higher levels of ATPs. The authors argue that recent legislation aimed at increasing stakeholder activism is a useful step towards improving the quality of financial reporting.

Bowen et al. (2008) adopt a more neutral view of the relationship between corporate governance and aggressive accounting practices. Although most of the previous research concludes that evidence of accounting discretion stems from managerial abuse of the latitude allowed in accounting standards, Bowen et al. argue that the observed correlation should only be viewed as opportunism if the issuer subsequently performs poorly. After confirming the relationship between weak corporate governance mechanisms and accounting discretion, Bowen et al. then analyze issuer performance over an extended period. The authors find that accounting discretion is positively correlated with performance measures such as operating cash flows and ROA. This result is noteworthy because it suggests that stakeholders may benefit from managerial accounting discretion. Extending this result implies that weak corporate governance structures may be optimally chosen in an efficient contracting environment to allow for the potentially beneficial effects of managerial discretion.

If management is insulated from stakeholder pressure, they are free to exercise latitude in their decision making. Despite the potential benefits attributable to managerial discretion, evidence suggests that entrenched managers lack incentive to serve the interests of stakeholders (Bertrand and Mullainathan, 2003). This could lead managers to take actions that threaten the long-term viability of the company.

Hypothesis 4: The decision to file a stealth restatement is positively associated with the GIM index of managerial entrenchment.

Activist Shareholders

The efficiencies of internal vs. external corporate governance mechanisms have been richly debated.¹³ It has been argued that internal and external governance mechanisms can be viewed as substitutes if internal mechanisms evolve in response to changes in external mechanisms (Pound, 1992). Under these circumstances, issuers with varying levels of internal vs. external governance mechanisms will have a similar quality of corporate governance. Jensen (1993) challenges this view citing the widespread failure of internal control mechanisms during the 1970s and 1980s. Jensen argues that restrictions on the market for corporate control forced the efficient structuring of issuers onto internal governance mechanisms which were ill-equipped to handle the required downsizing for a variety of reasons ranging from sticky expectations to inefficient contracting.

Although competition for control may be the most significant factor in disciplining management, it is unlikely to solve the problem of corporate governance on its own (Shleifer and Vishny, 1997). Small, incumbent shareholders, who are unable to realize individual gains in efficiency from monitoring management, can inadvertently prevent a profitable takeover of the issuer by not tendering their shares in an effort to free-ride on gains from a raider's proposed improvements (Grossman and Hart, 1980). This free-riding behavior can actually hinder the ability of the market for corporate control to discipline management.

¹³ See Seward and Walsh (1990) for a concise summary.

Free-riding behavior stems from the result that it is not profitable for atomistic shareholders to incur monitoring costs. However, as the level of ownership increases, the cost-benefit ratio of monitoring changes so that large shareholders can benefit from monitoring even if the benefits are not completely internalized (see Admati et al., 1994; or Burkart et al., 1997). Shleifer and Vishny (1986) show that the free-riding problem may be less acute in the presence of a large shareholder who can facilitate a takeover bid by incurring monitoring costs and splitting the gains on her shares with the raider. Given these incentives, the presence of a large activist shareholder can increase the likelihood of a raider appearing.¹⁴

Although shareholder activism is not a new phenomenon,¹⁵ its role in influencing managerial decisions has received increased attention as institutional investors now control the majority of equity shares in the United States (Smith, 1996). Recent SEC decisions have granted additional power to shareholders by allowing them to submit issues for inclusion in proxy material and for presentation at shareholder meetings (see SEC Rule 14a-8 and its amendments and clarifications). These decisions have provided an efficient mechanism for activist shareholders to voice their concerns about corporate governance and influence managerial behavior (Gillian and Stark, 2000).

Proponents of shareholder activism argue that increased monitoring of management and focus on long-term performance produces a public good that benefits all shareholders. Opponents of shareholder activism argue that activists may lack expertise to advise management, or may not have the appropriate incentive structure to compel them to engage in meaningful activism. There have been a large number of empirical

¹⁴ In this scenario, it is the interaction of internal and external mechanisms that ensure effective governance (see Kose and Kedia, 2000; or Cremers and Nair, 2005).

¹⁵ See Boyer (1993) or Simon (1998) for a synopsis of historical shareholder activism in the United States.

studies analyzing potential benefits of shareholder activism, but the results have been mixed (see Gillian and Starks (1998) for a survey of the activist shareholder literature). What follows is a brief description of the activist shareholder literature as it pertains to financial restatements.

Bar-Gill and Bebchuk (2003) show that the overall level of misreporting depends on the laxity of the reporting environment. As controls over financial reporting are decreased, managers may choose to invest more in opportunities to misreport. In the Bar-Gill and Bebchuk model, these controls include legal and accounting standards as well as the intensity of outside monitoring. The intensity of outside monitoring can have mixed effects on managerial decision making. Stein (1988) argues that the extent to which invested capital can be characterized as being patient will influence managements' decisions about whether to pursue costly signaling campaigns designed to increase short-term share prices and dissuade takeover bids. Although the model is not designed to identify whether a particular equilibrium will occur, Stein concludes that impatient capital (e.g. an aggressive institutional investor) increases the likelihood of costly separating equilibria in which managers act to inflate short-term share prices.

Empirical evidence regarding the effects of institutional investors on financial restatements depends on factors such as concentration of ownership and investment strategy.¹⁶ Burns et al. (2010) find that the probability of a financial restatement is increasing in the level of institutional ownership. The authors find that this result is most pronounced for transient institutional investors and conclude that management feels

¹⁶ Bushee (1998) develops a classification of institutional investors based on these factors. Institutional investors are classified as being either: (1) "transient" marked by high levels of portfolio turnover, (2) "dedicated" marked by concentrated portfolios with low turnover rates, or (3) "quasi-indexing" marked by diversified portfolios with low turnover rates.

compelled to inflate short-term performance indicators to avoid being punished by “The Wall Street Rule.” However, Burns et al. also find that ownership concentration is negatively related to financial restatements. The authors demonstrate that the benefits of monitoring increase with the concentration of ownership, regardless of investment strategy. Using a similar methodology, Hribar et al. (2004) find that transient institutional investors are able to anticipate the restatement and start decreasing their holdings one quarter prior to the restatement announcement. The authors are unable to determine whether this anticipatory behavior is attributable to superior information or investment strategy, but they do not find similar evidence for dedicated or quasi-indexing investors.

Grant and Hogan (2009) extend the literature on institutional investment strategy by controlling for the effects of the source of the restatement. The authors find that transient investors are able to anticipate stealth restatements and begin to decrease their ownership stakes in the quarter preceding the restatement disclosures. The results are less pronounced for the other investor categories. Although dedicated institutional investors decrease their holdings in issuers that file stealth restatements, the sales take place in the quarter following the disclosures. Quasi-indexing investors do not seem to react negatively to stealth restatement disclosures and actually increase their ownership stakes prior to and during restatement periods. These findings highlight the benefits of private information acquisition when markets allow for segmented disclosure policies.

Given their size and level of sophistication, institutional investors can have a positive impact on the financial reporting quality and the operating performance of the companies in their portfolios. Although superior asset allocation decisions can partially explain these results, institutional investors can also pressure management to act on their

behalf. This suggests that as the level of institutional ownership increases, management will be less able to file a stealth restatement.

Hypothesis 5: The decision to file a stealth restatement is negatively associated with the presence of institutional investors.

Litigation

One of the most significant factors in determining the strength of corporate governance systems is how courts interpret and enforce the legal obligations that managers have to stakeholders (Shleifer and Vishny, 1997). In the United States, stakeholders have the right to pursue litigation against issuers if they believe that management has violated their fiduciary duties. Because restatements are often viewed as an indicator of improper accounting, stakeholders may be particularly aggressive in litigating once a restatement is disclosed for non-technical reasons.

A number of papers have found an increased risk of litigation stemming from restatements (see Kinney and McDaniel, 1989; Jones and Weingram, 1997; or Palmrose and Scholz, 2004). If the litigation is successful, management may be subjected to costly reimbursement (see SOX §304), renegotiations (Collins et al., 2008), or dismissal (Strahan, 1998; or Niehaus and Roth, 1999). These results would suggest that managers have an incentive to discover and address internal control weaknesses in an effort to prevent a restatement and the potential litigation that follows (Ashbaugh-Skaife et al., 2007). However, the attenuated market response to stealth restatements could make it difficult for stakeholders to receive favorable judgments. Swanson et al. (2007) find that issuers are less likely to face litigation stemming from stealth restatements. An interesting question remains: Does previous litigation affect the method that management uses to

disclose restatements? Because litigation should be viewed as being personally costly to managers, previous litigation could provide managers with an incentive to avoid filing a prominent restatement announcement. At the same time, filing a stealth restatement violates the intention of Rule 33-8400 which could subject managers to SEC enforcement and/or litigation. Thus, I am unable to form a directional hypothesis about how previous litigation affects the decision to file a stealth restatement.

Hypothesis 6: The decision to file a stealth restatement is associated with previous litigation.

Analyst Coverage

Analysts play an important role as intermediaries between issuers and stakeholders by interpreting public information and searching for and disseminating private information (Healy and Palepu, 2001). Because of their role in shaping expectations, managers have identified analysts as one of the most important factors affecting securities prices (Graham et al., 2005). In this capacity, analysts may provide an additional layer of financial oversight.

Analyst coverage has been found to effect managerial decisions in a number of ways. For example, analysts have uncovered a nontrivial percentage of alleged cases of corporate fraud (Dyck et al., 2010) and the presence of analysts has been found to affect managements' decisions regarding capital structure (Chang et al., 2006). Analyst coverage has also been found to improve the quality of financial disclosures via a reduction in the level of discretionary accruals (Yu, 2008). Even in situations where management appears to be smoothing income, the informativeness of earnings increases with analyst coverage (Sun, 2009). Similarly, Barth and Hutton (2004) find that analysts'

forecast revisions contain information about the persistence of earnings beyond what is contained in contemporaneous accruals. Collectively, these results suggest that analysts play a role in constraining managerial actions to the benefit of stakeholders.

Analysts facilitate price discovery by reducing information asymmetries between management and stakeholders. An important issue relates to which issuers receive analyst coverage. There is evidence to suggest that analyst coverage is greater for issuers that provide more detailed disclosures.¹⁷ These papers argue that analysts self-select into providing coverage for issuers that have lower costs of information acquisition. The effect of this selection process is ambiguous. By covering issuers with expanded disclosure policies, analysts are able to provide more accurate forecasts and improve their perceived performance. At the same time, as the quality of disclosures decreases, the value of private information acquisition increases (for example, see Verrecchia, 1982). This implies that stakeholder demand for analyst coverage should increase for issuers with relatively poor disclosure quality.¹⁸

It is not possible to form a directional hypothesis regarding the effects of analyst coverage on stealth restatements. Analysts may shy away from covering stealth restatements because of the increased costs of information acquisition. However, the value of private information increases for these issuers and would provide a concomitant increase in the demand for analyst coverage.

Hypothesis 7: The decision to file a stealth restatement is associated with analyst coverage.

General Restatement Factors

¹⁷ See Healy and Palepu (2001) for a survey of the analyst selection literature.

¹⁸ Lobo et al. (2011) find that the number of analysts following a particular issuer is a function of accruals quality.

Extant literature has identified a number of factors that can be used to predict restatements.¹⁹ These variables are included in the analyses to determine if issuers that elect to file stealth restatements differ along these dimensions and to control for their potential effects on the decision to file a stealth restatement.

Issuer Size

The corporate finance literature has identified a number of positive benefits of issuer size including productivity, profitability and survival (Beck et al., 2005). Although bigger does seem better, the effects of size on the probability of misstatement are ambiguous. Kinney and McDaniel (1989) find that relatively small issuers are more likely to file restatements. This may reflect managements' efforts to overstate profitability in order to gain visibility or market share (Kedia and Philippon, 2009). At the same time, issuer size is negatively associated with the quality of internal controls (Ge and McVay, 2005). Relatively small issuers may lack the resources required to establish effective internal controls and would then be more likely to misstate their financials.

Although relatively small issuers are more likely to file restatements, increased attention on large issuers increases the likelihood that misstatements are detected. Dechow et al. (2011) find that a disproportionately large number of AAERs stemming from misstatements are made by relatively large issuers. The authors argue that this result may be driven by selection bias because of the added scrutiny that relatively large issuers receive from investors, press and regulators.

Hypothesis 8: The decision to file a stealth restatement is negatively associated with issuer size.

¹⁹ See Dechow et al. (2011), Palmrose et al. (2004), or Hribar and Jenkins (2004) for a list of factors that have been found to be correlated with restatements.

Leverage

To protect bondholders from the kinds of wealth transfers described by Jensen and Meckling (1976), many debt securities contain covenants designed to constrain managerial actions and alleviate the asset substitution problem (Leland, 1994). Violating these covenants imposes significant costs on issuers in the form of renegotiation, restructuring, or refinancing.²⁰ To avoid these costs, issuers that are close to violating debt covenants have an incentive to misstate their financials (DeFond and Jiambalvo, 1991). Although data on the existence and structure of debt covenants is sometimes available, Duke and Hunt (1990) find that several measures of leverage are correlated with both the existence and tightness of the most prevalent debt covenants.

Measures of leverage are frequently included in analyses of restatements, but the results have been mixed.²¹ Kinney and McDaniel (1989), Richardson et al. (2002), and Burns et al. (2010) find a positive association between leverage and financial misstatements.

Hypothesis 9: The decision to file a stealth restatement is positively associated with the use of leverage.

Market Related Factors

Market related pressures and incentives are important factors for engaging in earnings management (Dechow et al., 1996). Factors that have been found to be correlated with financial restatements include: demand for external financing (Dechow et al., 1996; Richardson et al., 2002; and Dechow et al., 2011), raising external capital

²⁰ See Beneish and Press (1993) for an estimate of the cost of violating debt covenants.

²¹ Papers finding evidence of a link between leverage and financial restatements include Kinney and McDaniel (1989), Richardson et al. (2002) and Burns et al. (2010). Papers that do not find evidence include DeFond and Jiambalvo (1991), Beneish (1999) and Dechow et al. (2011).

(Ibid.) and growth in EPS (Richardson et al., 2002). These factors are included to control for the incentives management may have in filing a stealth restatement.

Issuers that are actively involved with capital formation have incentive to suppress negative news from the market. As a result, issuers that have either recently acquired capital, or will acquire capital in the current fiscal year should be more likely to file stealth restatements.

Hypothesis 11a: The decision to file a stealth restatement is positively associated with the demand for external financing.

Hypothesis 11b: The decision to file a stealth restatement is positively associated with the raising external capital.

Issuers that experience strong EPS growth face significant pressure to continue to deliver a high-level of performance. In addition, issuers with strong EPS growth receive increased analyst coverage and benefit from suppressing bad news. This suggests that issuers with strong EPS growth have incentive to file stealth restatements.

Hypothesis 11c: The decision to file a stealth restatement is positively associated with EPS growth.

External Audit

The Securities Exchange Act of 1934 requires issuers to have their financial statements audited by an independent auditor.²² Accounting theory posits that auditors serve two primary purposes.²³ First, auditors provide assurance that audited financial statements present fairly with respect to established accounting standards. Second, auditors provide a form of insurance in that they can be held liable for losses stemming

²² Jensen and Meckling (1976) argue that, in the absence of such regulations, managers will voluntarily incur bonding costs, such as audit fees, to reduce agency costs.

²³ For example, see Baber et al. (1995).

from a failure to detect financial misrepresentations. With respect to the first purpose, previous literature has documented that audit quality varies across several dimensions (Francis, 2004). One factor that seems to be important in differentiating quality is the size of the audit firm. The employment of a Big 4²⁴ auditor is frequently used as a measure of corporate governance as they are believed to provide a higher level of audit quality and assurance (Francis, 2004). The use of a Big 4 auditor may even constrain managerial discretion and has been found to be negatively correlated with fraudulent financial reporting (Farber, 2005). There are competing explanations for why Big 4 audits are typically found to be of higher quality, but selection bias cannot be ruled-out. Still, the selection of an auditor is thought to send an important signal to stakeholders about management's assessment of the business (Bar-Yosef and Livnat, 1984).

Analyzing the second purpose of auditing presents a methodological challenge because of the difficulty associated with uniquely identifying the effects of auditor insurance (Baber et al., 1995). Previous literature has found that audit fees include a component that is designed to compensate the auditor for perceived litigation risk stemming from a financial misstatement or business failure (Pratt and Stice, 1994; Bell et al., 2001; or Seetharaman et al., 2002). Feldman et al. (2009) provide empirical support for the relation between financial restatements and audit fees and document an increase in audit fees following a restatement. Therefore, audit fees may signal the auditor's internal assessment of the risk and complexity associated with their client portfolio. I control for both of these factors in analyzing the decision to file a stealth restatement.

²⁴ The Big 4 is comprised of: Deloitte LLP, Ernst and Young LLP, KPMG SC and PricewaterhouseCoopers LLP.

Hypothesis 12a: The decision to file a stealth restatement is negatively associated with the use of a Big 4 auditor and/or audit fees.

Hypothesis 12b: The decision to file a stealth restatement is positively associated with audit fees.

Discretionary Accruals

The application of generally accepted accounting principles (GAAP) requires management to use experience and other information when determining estimates and assumptions that affect amounts reported in the financial statements. These inputs are used to portray an issuer's financial condition and operating results and should more accurately reflect an issuer's business economics. Although the use of subjectivity and judgment in forming estimates and assumptions can benefit stakeholders by providing management with a mechanism to convey information, it also creates an opportunity for managers to engage in earnings management.

In order for managers to engage in earnings management, information asymmetry must exist between management and shareholders (Schipper, 1989). This suggests that certain accounts may be more useful for managing earnings. In particular, accounts that involve complex transactions and allow for a significant amount of managerial discretion may be more likely candidates for use in managing earnings.

A large body of literature focuses on the use of various types of accruals to manipulate earnings.²⁵ Accrual accounting requires companies to recognize economic events regardless of whether cash transactions have occurred. While this should lead to a more accurate portrayal of operating performance and financial condition, the subjectivity and judgment involved in the estimation of various discretionary accruals

²⁵ See Jones et al. (2008) for a description of some of the more popular models.

also provides an opportunity to engage in earnings management. Prior to key events, some authors have found that estimates of discretionary accruals can range from 2-5% of total assets (Teoh, Wong and Rao, 1998; and Erickson and Wang, 1998).

Issuers with relatively large accruals may already engage in aggressive financial reporting. As a result, these issuers may be more willing to suppress news of a financial misstatement. I include estimates of discretionary accruals as a control variable in the decision to file a stealth restatement.²⁶

Hypothesis 13: The decision to file a stealth restatement is positively associated with estimates of discretionary accruals.

Restatement Specific Factors

Shortly after the implementation of Rule 33-8400, the SEC indicated that it would support the industry's view that not all restatements require filing Form 8-K (Turner and Weirich, 2006). Although it is not entirely clear how the industry determines when it is necessary to file Form 8-K to announce a restatement, the materiality of the restatement may be a factor in the decision (Plumlee and Yohn, 2008). I control for a number of restatement specific factors such as: materiality, number of misstated periods and the parties involved with the restatement.

Previous research documents significant variation in the market impact of restatement filings depending on the specific facts and circumstances associated with the misstatement (Palmrose et al., 2004). Although issuers disclosing material misstatements have increased incentive to suppress news of the disclosure, financial markets will identify material misstatements regardless of their disclosure source. In addition, if external parties are involved with the

²⁶ The methodology is described in Appendix 1A.

decision to file a restatement, they are more likely to pressure issuers into filing Form 8-K.

Hypothesis 14a: The decision to file a stealth restatement is negatively associated with estimates of materiality.

Hypothesis 14b: The decision to file a stealth restatement is negatively associated with the number of misstated periods.

Hypothesis 14c: The decision to file a stealth restatement is negatively associated with SEC involvement.

1.3 Data and Methodology

The data used in this analysis come from a number of sources. Financial statement data are pulled from Compustat and are obtained from SEC filings. Equity returns data are obtained from CRSP. Executive compensation data are obtained from ExecuComp, but are also hand-collected from the definitive proxy statement (Form DEF 14-A) to increase sample coverage. Data on the composition of board of directors and the audit committee are obtained from CapitalIQ. The restatement and ICFR data are sourced from AuditAnalytics which compiles restatement and audit data from SEC filings. Data on litigations are obtained from the Stanford Securities Class Action Clearinghouse.

The initial sample is comprised of all issuers that filed a restatement of their annual financial statements²⁷ (Form 10-K) between January, 2000 and December, 2011. Restatements are classified as either “stealth” or “non-stealth” depending on whether the issuer concomitantly filed a statement of non-reliance. Descriptive studies of financial

²⁷ Quarterly (Form 10-Q) restatements tend to focus on technical accounting errors and are typically less material (Hennes et al. 2008).

restatements document a significant increase in the number of restatements between 2003 and 2006 (Glass Lewis, 2006).²⁸ Figure 1.1 presents the number of annual restatements filed between 2000 and 2011. As documented in previous analyses, the number of restatements filed increases until 2005. During the same time period, a relatively stable number of restatements were disclosed without filing Form 8-K (i.e. stealth restatements) despite the implementation of Rule 33-8400.

Figure 1.1: Number of Financial Restatements by Year and Disclosure Type

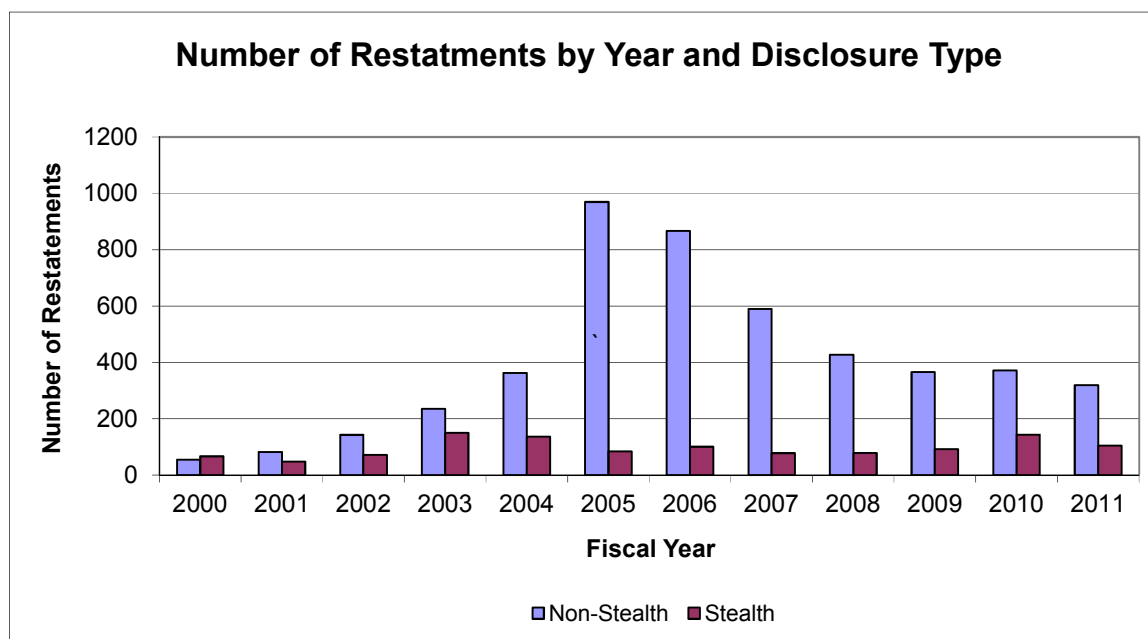


Table 1.1 presents a breakdown of annual restatements between 2000 and 2011 by sector and restatement type. As Table 1.1 indicates, stealth restatements are not germane to a single sector. Instead, stealth restatements are filed as a relatively constant percentage of the total number of restatements in a given sector.

²⁸ Although the cause of the increase in the number of restatements is still a topic of discussion, some have argued that it may be the result of overly conservative auditors requiring issuers to restate for reasons that are not driven by materiality (Plumlee and Yohn, 2008). This gave rise to what practitioners refer to as “restatement fatigue.”

Table 1.1: Number of Annual Financial Restatements by 2-Digit SIC Code

2-Digit SIC Classification	Non-Stealth Restatements	Stealth Restatements
Agriculture, Forestry, and Fishing	20	4
Construction	42	7
Finance, Insurance, and Real Estate	713	183
Manufacturing	1,545	365
Mining	405	86
Non-Classified Establishments	33	11
Retail Trade	346	83
Services	974	241
Transportation and Public Utilities	546	134
Wholesale Trade	165	42
Total	4,789	1,156

I restrict the sample to include issuers that were traded on the NYSE, Nasdaq or AmEx exchanges with FYE market capitalization in excess of \$100 million. Data requirements and merges produce a final sample of 2,464 annual restatements. The analyzed sample is comprised of 516 (21%) stealth restatements. The percentage of stealth restatements in the final sample compares well with the overall percentage of stealth restatements (24%) filed between 2000 and 2011 and untabulated results indicate that the final sample continues to provide coverage across all sectors.

Previous research has documented that the size of the market reaction to restatement announcements depends on the source of the disclosure (see Swanson et al., 2007; Plumlee and Yohn, 2008; or Myers et al., 2010). As a means of sample validation, I test for differences in the CARs following a restatement announcement after controlling for the source of the restatement.

Following (MacKinlay, 1997), I calculate CARs as,

$$AR_{it} = R_{it} - E(R_{it}|X_t)$$

where $AR_{it} = R_{it} - E(R_{it}|X_t)R_{it}$, and $E(R_{it}|X_t)$ are the period t abnormal, actual and normal returns, respectively. The normal returns are calculated using a standard market model,²⁹

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

where R_{mt} is the return on the market portfolio in period t . The coefficients, α_i and β_i , are estimated using a rolling sample of data from $t-270$ to $t-60$ prior to the restatement filing date to limit the effects of potential information leakage. The sample abnormal return is calculated as,

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt}.$$

Finally, the CAR is the sum of the abnormal returns over the event window.

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it}$$

Following Palmrose et al. 2004, I define the event window to begin on the restatement announcement date and extending to the first trading day after the restatement is disclosed.

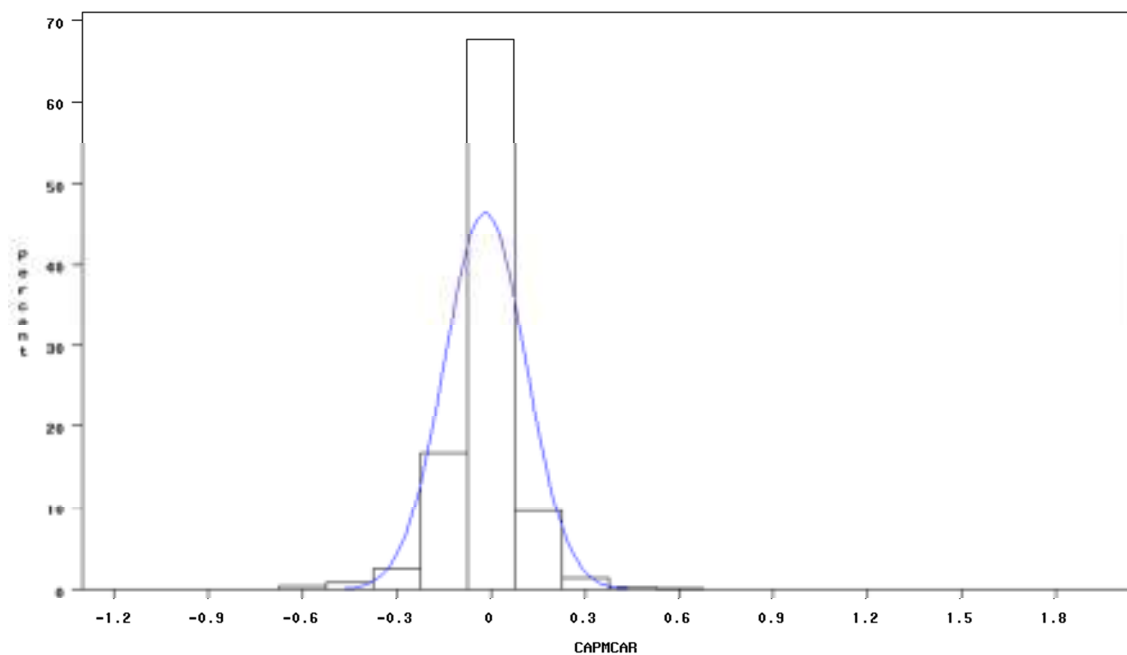
Table 1.2: Tests for Differences in the Market Reaction to Restatement Announcements Based on Disclosure Type

	(1)	(2)
Market Measure	T-Statistic	MWW Z-Stat
S&P 500 Index	-3.04	4.34
Equally Weighted Index	-3.20	4.70
Value Weighted Index	-2.99	4.3
Number of Observations	2,146	2,146

²⁹ The results are qualitatively similar if the Fama-French (1993) 3-factor model is used instead of the CAPM.

Table 1.2 presents the results of the market impact study based on abnormal returns calculated using the CAPM as a benchmark. Column 1 of Table 1.2 presents a simple t-test of the differences in CARs between stealth restatements and full disclosure restatements. Regardless of the specification for the market portfolio, the results indicate that issuers that file stealth restatements experience significantly less negative market reactions relative to issuers that file a more prominent restatement disclosure. Figure 1.2 presents a histogram of the CARs obtained from the CAPM using the S&P 500 as a benchmark.³⁰ Although the distribution is approximately symmetric, untabulated results indicate that the CARs are not normally distributed.

Figure 1.2: Histogram of CARs Using the CAPM and S&P 500 Benchmark



To address this concern, I utilize the Mann-Whitney-Wilcoxon test (MWW).³¹ Column 2 of Table 1.2 presents the results from the MWW test on the CARs. The results indicate

³⁰ Again, the results are qualitatively similar if other specifications are used.

³¹ The MWW test serves the same purpose as the independent samples t-test, but does not make an assumption about the underlying distribution of the data. For additional information see Daniel (1990).

that the mean CARs is significantly higher for issuers that file stealth restatements relative to issuers that file restatements using more prominent disclosures. Although this result has been identified in previous papers,³² the motivations for filing a stealth restatement are not clear. I argue that the attenuated market response provides management with a strategic motivation for filing stealth restatements.

I begin by using univariate analyses to compare issuers that elect to file stealth restatements as opposed to using a more prominent disclosure. Table 1.3 provides a list of the variables considered and a description of how they are calculated.

³² See Swanson et al. (2007), Plumlee and Yohn (2008) or Myers et al. (2010).

Table 1.3: Variable Definitions

Variable	Description
Acutalssuance	A dummy variable that takes the value 1 if capital was raised in the restatement year.
Analysts	The number of analysts following the issuer.
AuditDummy	A dummy variable that takes the value 1 if the audit committee holds more than 20% of the issuer's shares.
AuditPercent	The percentage of shares held by members of the audit committee.
AuditorInvolved	A dummy variable that takes the value 1 if the auditor was involved with the decision to restate.
Big4	A dummy variable that takes the value 1 if the issuer was audited by a Big 4 firm.
BoardIndependent	The percentage of the board of directors listed as outsiders.
BookToMarket	The ratio of the book value of the issuer to the market value of the issuer.
CEOSensitivity	The ratio of the CEO's in-the-money exercisable options to her most recent salary.
CoreAccount	A dummy variable that takes the value 1 if the restatement classification would have impacted one, or more, core account(s) as defined in Palmrose et al. (2004). The classifications are: Revenue Recognition, Cost of Sale or Operating Expenses, or Loan Loss Provisions.
DemandExternalFinancing	$(\text{Cash Flow from Operations}_t - \text{Average Capital Expenditures}) / \text{Current Assets}_t$
EPSGrowthDummy	A dummy variable that takes the value 1 if the issuer reported positive EPS growth for each of the four most recent quarters.
FinancingRaised	A dummy variable that takes the value 1 if the issuer raised external capital during the disclosure period.
Fraud	A dummy variable that takes the value 1 if allegations of fraud were associated with the restatement.
GovernanceIndex	The index developed in Gompers, Ishii and Metrick (2003).
ICFR	A dummy variable that takes the value 1 if the issuer received a negative ICFR opinion.
IndependentDummy	A dummy variable that takes the value 1 if more than 50% of the board of directors are listed as outsiders.
InsideDummy	A dummy variable that takes the value 1 if 50%, or more, of the issuer's shares are held by insiders.
InsidePercent	The percentage of shares held by insiders.
Leverage	$\text{Total Debt}_t / \text{Total Assets}_t$
Litigation	A dummy variable that takes the value 1 if the issuer has been named as a defendant in a previous litigation brought on by shareholders.
LnAssets	The natural log of Total Assets _t
Loss	A dummy variable that takes the value 1 if the issuer reported a loss during the disclosure period.
OwnershipDummy	A dummy variable that takes the value 1 if 50%, or more, of the issuer's shares are held by institutional investors.
PercentIndependent	The percentage of seats on the Board of Directors held by outsiders.
PercentOwnership	The percentage of shares held by institutional investors.
ScaledImpact	The ratio of the cumulative change to Net Income to the issuer's Total Assets.
SEC	A dummy variable that takes the value 1 if the SEC was involved with the restatement.
Surprise	The difference between reported EPS and the median of analysts' forecasts.
Time	The number of reporting periods affected by the restatement.

Hypotheses 1 and 2 involve the independence of the board of directors and the audit committee, respectively. To test Hypothesis 1, I calculate the percentage of the seats on the board of directors held by outsiders (Beasley, 1996). I also construct a dummy variable that takes the value 1 if more than 80% of the seats on the board are held by

outsiders.³³ As Table 1.4 indicates, outsiders comprise approximately 72% of the board of directors. In addition, approximately 40% of the boards are comprised of a significant majority of outsiders.

Table 1.4: Descriptive Statistics for the Audit Committee, Board of Directors and Inside Ownership Data

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Seats on the Board of Directors							
BoardIndependent	71.7%	16.6%	40.0%	62.5%	75.0%	84.6%	90.0%
IndependentDummy	39.9%	49.0%	--	--	--	--	--
Shares Held by Members of the Audit Committee							
AuditPercent	7.4%	15.6%	0.0%	0.0%	0.0%	4.4%	20.2%
AuditDummy	10.2%	30.2%	--	--	--	--	--
Shares Held by Insiders							
InsidePercent	8.7%	17.5%	0.0%	0.0%	1.7%	7.1%	27.9%
InsideDummy	13.2%	33.8%	--	--	--	--	--

To test Hypothesis 2, I calculate the percentage of an issuer's stock owned by members of the audit committee (Carcello and Neal, 2003). I also calculate a dummy variable that takes the value 1 if the audit committee holds more than 20% of the issuer's shares.³⁴ As Table 1.4 indicates, members of the audit committee hold approximately 7% of the issuer's shares. In addition, approximately 10% of audit committees hold more than 20% of the issuer's shares.

To test Hypothesis 3, I identify issuers with an effective ICFR report. I construct a dummy variable that takes the value 1 if the issuer received an effective ICFR report (*ICFR*). Epps and Mitler (2011) report that there are numerous instances when the auditor will restate its ICFR opinion after the issuer files a restatement. To avoid biasing the results, I restrict the sample to include the auditor's first opinion. As indicated in Table 1.5, approximately 17% of issuers receive an ineffective ICFR report.

³³ SOX requires that companies listed on major exchanges have a majority of independent directors. While the 80% threshold used to calculate the independent board dummy variable is somewhat arbitrary, the results are robust to different criteria.

³⁴ Again, the 20% threshold is arbitrary, but the results are robust to different values.

Table 1.5: Descriptive Statistics for the ICFR Dummy Variable

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
ICFR	17.1%	37.7%	--	--	--	--	--

To test Hypothesis 4, I use the GIndex (*GovernanceIndex*) developed in GIM (2003). Unfortunately, the index was discontinued in 2006.³⁵ To complete coverage for the sample period, I pull data on shareholder restrictions compiled by RiskMetrics®. While there is overlap between the two series, there is not a perfect match between the restrictions included in the original specification of the GIndex and the restrictions available in the RiskMetrics® database.

Table 1.6: Descriptive Statistics for the GovernanceIndex Variable

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
G-Score Based on Original Gompers, Ishii, Metrick (2003) Methodology							
G-Score (2000 - 2007)	9.02	2.59	5	7	9	11	12
Updated G-Score Based on the Intersection of Shareholder Restrictions							
G-Score (2008 - 2010)	4.84	1.51	2	4	5	6	7
Hybrid G-Score for the Entire Sample Period							
G-Score (2000 - 2010)	8.08	2.98	3	6	8	10	12

Following the methodology developed in GIM (2003), issuers average approximately 9 shareholder restrictions during the period 2000 – 2007. By including only the intersection of the restrictions from the original GIM dataset and the RiskMetrics® database, the average number of shareholder restrictions falls below 5 for the period 2008 – 2010. Despite this, untabulated results indicate a significant correlation between the two series.

Although some of the literature on institutional investors and restatements focuses on investment strategies and portfolio changes, I focus on the presence of institutional investors as a mechanism for constraining managerial behavior. To test Hypothesis 5, I

³⁵ Although the series was discontinued in 2006, some of the observations are considered valid until 2007. Following the convention developed in Gompers, Ishii and Metrick (2003), the G-Scores are assumed to be valid between observations years and up to the last available valid date.

calculate the percentage of an issuer's shares held by institutional investors (*PercentOwnership*). In addition, I calculate a dummy variable that takes the value 1 if more than 50% of an issuer's shares are held by institutional investors (*OwnershipDummy*). Table 7 presents data about the percentage of shares held by institutional investors. As indicated, approximately 53% of the issuers' shares are held by institutional investors and approximately 54% of issuers have a majority of their shares held by institutional investors.

Table 1.7: Descriptive Statistics for the Institutional Ownership Data

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
PercentOwnership	52.7%	31.9%	1.5%	23.1%	56.6%	87.5%	90.0%
OwnershipDummy	54.4%	49.8%	--	--	--	--	--

Hypothesis 6 considers the effects of previous litigation on the decision to file a stealth restatement. Following Swanson et al. (2007) I determine if litigations identified in the Stanford Securities Class Action Clearinghouse database involve restatements. I then construct a dummy variable that takes the value 1 if the issuer was involved with a previous litigation stemming from a restatement (*Litigation*). As Table 1.8 indicates, approximately 27% of issuers experienced previous litigation stemming from a restatement.

Table 1.8: Descriptive Statistics for the Litigation Data

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Litigation	27.3%	44.5%	--	--	--	--	--

To test Hypothesis 7, I obtain data about the number of analysts (*Analysts*) following a particular issuer (Yu, 2008). Unfortunately, there is a potential complication associated with using analyst coverage data across the pre and post-SOX time periods.

Changes in the regulatory environment surrounding financial analysts³⁶ stemming from the passage of SOX may have increased the costs and decreased the benefits associated with producing equity research (Healy, 2009). This implies that there would have been an exogenous change in the number of analysts following a particular issuer after the passage of SOX in 2002. Berger (2005) confirms this result and finds a significant decrease in the number of analysts following a particular issuer in the post-SOX environment. To address this concern, I analyze the number of analysts' forecasts during the sample period. Untabulated results indicate that there was not a statistically significant decline in the number of analysts' forecasts during the period 2000 – 2011. Table 1.9 indicates that the average issuer in the sample has approximately 6 analyst forecasts.

Table 1.9: Descriptive Statistics for the Analyst Coverage Data

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Analysts	5.81	5.83	1	1	4	8	14

Hypotheses 9 through 13 relate to general factors that have been found to be correlated with restatements. Previous literature suggests that proximity to violating debt covenants provides management with an incentive to engage in aggressive accounting practices (DeFond and Jiambalvo, 1991). While obtaining data on specific debt covenants is costly, several commonly used measures of leverage are correlated with both the existence and tightness of the most prevalent debt covenants (Duke and Hunt, 1990). To increase the effectiveness of monitoring activities associated with debt covenants, creditors have an incentive to provide shorter term debt contracts so that the issuer must renegotiate often (Barclay and Smith, 1995). This result suggests that measures of

³⁶ See Begley et al. (2009) for a more detailed description of these changes.

leverage need to include both short and long-term debt in order to capture the effects of debt covenants. Therefore, to test Hypothesis 9, I use the ratio of total debt to total assets (*Leverage*).

External capital markets place pressure on issuers to deliver financial performance. This pressure may compel managers to pursue aggressive accounting practices resulting in higher incidences of financial restatements (Richardson et al., 2002). To the extent that stealth restatements can be hidden from markets, they may provide managers with a means to alleviate capital market pressures. Hypothesis 10 tests the effects of several measures of market pressure on the decision to file a stealth restatement.

Evidence suggests that issuers involved with financial restatements have higher growth and profitability expectations embedded in their share prices relative to non-restating issuers (Dechow et al., 2011). To control for these pressures, I include the PE (*PERatio*) and market-to-book ratios (*MarketToBook*). Similarly, issuers face market pressures to maintain EPS growth (Myers and Skinner, 2007). Following Richardson et al. (2002), I use a dummy variable that takes the value 1 if the issuer reported 4 consecutive quarters of EPS growth prior to the restatement announcement (*EPSGrowthDummy*).

In addition to performance, issuers that anticipate raising external capital in the near future face significant market pressure. Following Dechow et al. (2011), I calculate the ex-ante demand for external financing (*DemandExternalFinancing*) as,

$$DemandExternalFinancing = CashFlowFromOperations - \frac{AvgCapitalExpenditure}{CurrentAssets}$$

When the ex-ante demand for external financing is negative, the absolute value of the ratio (1 / ex-ante demand for external financing) can be interpreted as the number of years that the issuer can continue to self-fund its operating and investment activities (Dechow et al., 1996). For example, if the ex-ante demand for external financing is -0.5, the issuer has the current assets required to self-fund its operations for two years. Assuming that the issuer maintains the same rate of capital expenditure implies it will have to raise external capital in the near future, thus pressuring management to deliver performance. I also include a dummy variable that takes the value 1 if new debt or equity was issued (*ActualIssuance*) during the period when the restatement was announced (Dechow et al., 2011). Table 1.10 presents descriptive statistics for the data on market pressures used to test Hypotheses 9 and 10.

Table 1.10: Descriptive Statistics for the Market Pressures Data

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Leverage	0.21	0.25	0.00	0.01	0.14	0.32	0.53
PERatio	27.71	114.74	0.00	0.00	10.27	22.99	48.41
MarketToBook	2.20	25.78	-1.29	1.05	1.81	3.12	5.71
EPSGrowthDummy	0.06	0.24	0	0	0	0	0
DemandExternalFinancing	-0.11	0.41	-0.60	-0.12	-0.03	0.01	0.05
FinancingRaised	0.92	0.28	0	1	1	1	1

Table 1.10 indicates that the average issuer in the sample funds about 21% of its assets with debt. While this number may seem low relative to leverage ratios reported in descriptive studies such as Rajan and Zingales (1995), it is not surprising given that the average issuer in the sample is smaller than the average issuer in the Compustat population.³⁷ Conversely, the average issuer in the sample has a relatively high PE ratio and is more actively involved with raising external capital. As the sample is comprised entirely of issuers that restated their financials, these results are consistent with previous

³⁷ Results furnished upon request.

findings about the effects of market pressures on financial restatements (Dechow et al., 2011).

Previous research has documented that restatements seem to depend on exogenous factors such as industry and time (Dechow et al., 1995; Beneish, 1999; Richardson et al., 2003; Burns and Kedia, 2006; or Burns et al., 2010). For example, Burns and Kedia (2006) find that restatements are more prevalent in some industries. To control for this effect, I include dummy variables for two-digit SIC codes. I also include time dummy variables to control for the possibility that restatements depend on changes in the financial reporting environment (Plumlee and Yohn, 2008). Figure 1.1 and Table 1.1 describe the industry and time data.

Hypothesis 12 tests the effect of auditor choice and audit fees on the decision to file a stealth restatement. Although the primary purpose of an audit is to reduce information asymmetry between management and stakeholders, auditors also serve as “deep pockets” in the event that an issuer fails due to financial misstatement. Empirical evidence suggests that audit quality varies across several dimensions.³⁸ Although it is difficult to identify observable measures of audit quality, the selection of a Big 4 auditor may signal management’s willingness to align with stakeholder incentives. To analyze this effect, I include a dummy variable that takes the value 1 if the issuer was audited by a Big 4 audit firm (*Big4*).

Previous literature indicates that audit fees depend on a number of factors related to the production of audit services (see Hay et al. (2006) for a meta-analysis of the audit fee literature). While issuer size and complexity are consistently found to be important factors, audit fees may signal the auditor’s internal risk assessment of their issuer clients

³⁸ See Francis (2004) for a thorough discussion.

(Feldman et al., 2009). Therefore, I include the natural log of audit fees (*LnAuditFees*) to test whether auditors are indeed pricing for the risks associated with issuers filing stealth restatements. Table 1.11 presents summary statistics for the Big 4 dummy variable and the natural log of audit fees.

Table 1.11: Descriptive Statistics for the Big 4 Auditor and Audit Fees Data

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Big4	0.64	0.48	--	--	--	--	--
LnAuditFees	6.06	5.69	0.00	0.00	8.91	11.36	12.58

As indicated, approximately 64% of the issuers in the sample are audited by a Big 4 auditor. Previous studies on auditor choice typically find that the use of a Big 4 auditor is highly correlated with issuer size (see GAO, 2008). Thus, finding that 64% of the issuers in this sample are audited by a Big 4 audit firm is consistent with results indicating that restatements are more prevalent in smaller issuers (Kinney and McDaniel, 1989).

Hypothesis 13 tests the association between discretionary accruals and the decision to file a stealth restatement. Accruals are a likely mechanism to engage in earnings management because of their opacity and minimal impact on operating performance (Young, 2003). Although earnings management via discretionary accruals is intuitively appealing, empirical evidence regarding the use of discretionary accruals in alleged cases of earnings management has produced mixed results (for example, see Jones et al., 2008; or Dechow et al., 2011). This has led a number of researchers to question the ability of the various discretionary accruals models to identify separately earnings management from the measurement errors introduced by the selection of a particular model (for example, see Fields et al., 2001; or Kothari et al., 2005).

Short of developing more powerful methods of detecting earnings management, there are no easy alternatives to circumvent the problems associated with measurement error and identification. Recent evidence suggests that many of the proposed discretionary accruals models have some power to detect earnings management (Jones et al., 2008; or Dechow et al., 2011). In addition, Jones et al. (2008) find that there is a high degree of correlation between estimates of discretionary accruals obtained from different models. To address this issue, I follow Jones et al. (2008) and use principal components analysis (PCA) to develop composite measures of the discretionary accruals estimates. Table 1.12 presents descriptive statistics for the discretionary accruals estimates and the composite measures constructed using PCA.

Table 1.12: Descriptive Statistics for the Discretionary Accruals Estimates and Composite Measures

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Accruals Quality Related Variables							
WCAccruals	0.017	1.330	-0.311	-0.054	-0.003	0.046	0.135
RSSTAccruals	0.013	1.388	-0.392	-0.075	0.014	0.092	0.218
DeltaReceivables	-0.015	1.084	-0.097	-0.012	0.004	0.026	0.068
DeltaInventory	0.000	0.102	-0.061	-0.002	0.000	0.009	0.037
SoftAssets	0.584	0.259	0.115	0.384	0.616	0.804	0.915
Discretionary Accruals Based on Dechow and Dichev (2002)							
DDAccruals	-0.116	0.230	-0.338	-0.142	-0.075	-0.032	0.000
DDStudentAccruals	-0.010	0.715	-1.158	-0.132	0.063	0.200	0.449
Discretionary Accruals Based on the Modified Jones Model (Dechow et al., 1995)							
ModJonesAccruals	0.023	2.821	-0.458	-0.080	-0.006	0.063	0.271
Composite Measures							
Factor1	0	1	-1.43	-0.36	0.00	0.38	0.89
Factor2	0	1	-1.36	-0.20	0.12	0.39	0.74
Factor3	0	1	-1.28	-0.58	0.07	0.58	0.99

Untabulated results indicate that 3 orthogonal factors can be derived from the discretionary accruals estimates. Collectively, the 3 factors account for approximately 52% of the total variance. The accruals quality estimates load significantly on the first factor while the discretionary accruals estimates from the Dechow and Dichev (2002) and the Modified Jones (1995) models load significantly on factors 2 and 3, respectively.

Hypothesis 14 tests how restatement specific factors are associated with the decision to file a stealth restatement. Plumlee and Yohn (2008) argue that the materiality of the restatement influences whether the issuer files Form 8-K. Following Palmrose et al. (2004), I estimate materiality in several different ways. First, I calculate the cumulative change in net income attributed to the restatement scaled by the issuer’s total assets (*ScaledImpact*). Second, I calculate the number of misstated reporting periods (*Time*). Third, I identify whether the misstatement affected one of the issuer’s core accounts including: revenue, cost of sales, ongoing operating expenses and loan loss provisions (*CoreAccount*). Finally, I calculate dummy variables that identify whether specific parties such as the external auditor (*AuditorInvolved*), or the SEC (*SEC*) were involved with the restatement decision and whether allegations of fraud accompanied the misstatement (*Fraud*).

Table 1.13: Descriptive Statistics for the Restatement Specific Factors

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
AuditorInvolved	79.50%	40.37%	--	--	--	--	--
CoreAccount	0.31	0.46	0	0	0	1	1
Fraud	2.90%	16.96%	--	--	--	--	--
ScaledImpact	0.34%	3.02%	0.00%	0.00%	0.00%	0.00%	0.27%
SEC	8.65%	28.11%	--	--	--	--	--
Time	2.40	2.13	0.25	1.00	2.00	3.00	4.75

As Table 1.13 indicates, the size of the average restatement is approximately 0.3% of the issuer’s total assets. However, the distribution is highly skewed as the mean lies above the 90th percentile. The average restatement corrects approximately 2.4 years of the issuer’s previously issued financial statements. Lastly, while the SEC is involved with approximately 8.7% of the restatements, the external auditor is involved in almost 80% of the restatements.

1.4 Results

I begin with univariate analyses to test Hypotheses 1-14. Because the underlying data are not typically symmetrically distributed, I present nonparametric Mann-Whitney tests alongside two-sample T-tests.

Univariate Analysis

Table 1.14 presents results from simple T-tests on the differences in means as well as results from the non-parametric Mann-Whitney test. The results indicate that issuers that elect to file stealth restatements differ along several dimensions. The results also indicate that the implementation of Rule 33-8400 may have changed how certain factors influenced the decision to file a stealth restatement.

Table 1.14: Univariate Analyses

	(1)	(2)	(3)	(4)
Variable	Stealth Mean	Non-Stealth Mean	T-Test	Mann-Whitney Test
ActualIssuance	0.90	0.92	1.71*	-1.71*
Analysts	5.39	5.91	1.54	-0.75
AuditDummy	0.09	0.12	0.99	-0.99
AuditPercent	0.08	0.08	-0.15	-1.54
AuditorInvolved	0.65	0.83	9.65***	-9.47***
BoardIndependent	0.73	0.72	-0.43	0.31
Big4	0.63	0.65	0.94	-0.94
CFF	0.06	0.04	-1.21	-0.1
CoreAccount	0.29	0.32	1.25	-1.25
DDAccruals	-0.13	-0.11	1.05	-1.63
DDStudentAccruals	-0.02	-0.01	0.31	-0.57
DeltaInventory	0.00	0.00	0.05	-3.78***
DeltaReceivables	0.00	-0.02	-0.83	-1.12
DemandExternalFinancing	-0.37	-0.36	0.17	-0.69
EPSGrowthDummy	0.05	0.07	1.66*	-1.52
ExFinDummmmy	0.17	0.17	0.06	-0.06
Factor1	0.03	-0.01	-0.33	-1.04
Factor2	-0.05	0.01	0.72	-1.97**
Factor3	-0.03	0.01	0.40	-0.34
Fraud	0.03	0.03	0.71	-0.67
FreeCashFlow	-0.14	-0.10	2.00**	-2.41**
GovernanceIndex	9.03	8.68	-1.33	1.56
ICFR	0.65	0.53	-4.92***	4.77***
IndependentDummy	0.39	0.38	-0.19	0.19
InsideDummy	0.03	0.01	-0.76	1
InsidePercent	0.09	0.09	-0.18	0.08
Leverage	0.18	0.19	0.43	0.06
Litigation	0.24	0.28	1.92*	-1.86*
LnAssets	5.88	6.16	2.75***	-2.86***
LnAuditFees	5.70	6.16	1.65*	-1.8*
Loss	0.45	0.42	-1.25	1.26
MarketPerShare	14.60	16.39	2.21**	-2.03**
MarketToBook	0.41	2.65	1.25	-2.85***
ModJonesAccruals	0.12	0.00	-1.21	0.22
OwnershipDummy	0.51	0.55	1.51	-1.51
PERatio	25.08	28.39	0.50	-1.63
PercentOwnership	0.59	0.65	2.04**	-1.7*
RSSTAccruals	0.17	-0.03	-1.36	0.16
ScaledImpact	0.00	0.01	0.67	-2.44**
SEC	0.03	0.10	6.85***	-5.04***
SoftAssets	0.59	0.58	-0.50	0.39
Surprise	-0.09	-0.15	-1.49	1.28
Time	1.95	2.51	5.38***	-3.45***
WCAccruals	0.13	-0.01	-1.03	-0.76

***, **, * Indicate p-values significant beyond the 1%, 5% and 10% levels, respectively.

Hypothesis 3 tests whether ICFR opinions are associated with the decision to file a stealth restatement. The test statistic on the *ICFR* dummy variable is significant beyond the 1% level and indicates that issuers that elected to file stealth restatements are significantly more likely to have ineffective ICFR opinions. Given that the sample is comprised of issuers that filed restatements, this result suggests that stealth restatements may be symptomatic of a larger problem in financial reporting quality.

Hypothesis 5 tests how the presence of institutional shareholders influences the decision to file a stealth restatement. The test statistic for the percentage of the issuer's shares held by institutional investors (*PercentOwnership*) is significant beyond the 5% level and indicates that issuers electing to file stealth restatements tend to have a smaller percentage of their shares held by institutional investors. Assuming that stealth restatements are risky because they are contrary to the intentions of Rule 33-8400, this result is consistent with the hypothesis that institutional investors have a beneficial impact on corporate governance.

Hypothesis 6 tests how a previous litigation may have affected the decision to file a stealth restatement. The test statistic on the *Litigation* dummy variable is marginally significant and indicates that issuers that had been involved with previous litigation are less likely to file a stealth restatement. Although a number of papers have found an increased risk of litigation stemming from restatement disclosures (Palmrose and Scholz, 2004), previous literature has found that issuers that elect to file stealth restatements are less likely to be litigated against (Swanson et al., 2007). The negative test statistic suggests that previous litigation may be a useful deterrent against aggressive financial accounting practices.

Hypothesis 8 tests whether the size of the issuer is associated with the decision to file a stealth restatement. The results in Columns 3 and 4 indicate that issuers that elect to file stealth restatements are small (*LnAssets*) relative to issuers that file more prominent restatement announcements. In general, restatements are more common among smaller issuers (Kinney and McDaniel, 1989). This result is consistent with the argument that the increased attention given to large issuers limits their ability to file stealth restatements. Hypotheses 9-13 test whether general restatement factors that have been identified in previous literature are associated with the decision to file a stealth restatement. The results in Columns 3 and 4 suggest that issuers that elect to file a stealth restatement differ along a number of these dimensions. In particular, issuers that elect to file stealth restatements tend to have less free cash flow (*FreeCashFlow*) and tend to be regarded as less valuable by the market (*MarketPerShare* and *MarketToBook*³⁹). I also find weak evidence that the decision to file a stealth restatement is associated with securities issuance (*ActualIssuance*).

With respect to Hypothesis 12, the evidence is contrary to what I had expected. Previous literature finds that the use of a Big 4 auditor is correlated with audit quality (see Francis, 2004). Although stealth restatements are significantly less common if the auditor was involved (*AuditorInvolved*) with the decision to issue a restatement, the use of a Big 4 auditor does not seem to be associated with the type of the restatement disclosure (*Big4*). I also do not find evidence that issuers that elect to file stealth restatements pay higher audit fees (*LnAuditFees*). In fact, I find limited evidence

³⁹ Although the test statistic on the MarketToBook ratio variable in Column 4 is significant beyond the 5% level, the equivalent t-test does not indicate that there was a statistically significant difference. Readers are free to draw their own conclusions, but I have a preference for the non-parametric test statistics as I have no a priori belief about the underlying distribution of the data.

indicating that issuers who elect to file stealth restatements pay lower audit fees, on average. This result is inconsistent with previous literature about audit fees pricing risk (e.g. Seetharaman et al., 2002).

I find limited evidence that the decision to file a stealth restatement is correlated with estimates of discretionary accruals. The coefficient on *DeltaInventory* is the only statistically significant measure of accruals quality. There is also not a statistically significant difference between any of the individual estimates of discretionary accruals. However, the coefficient on one of the composite measures of discretionary accruals (*Factor2*) is statistically significant beyond the 5% level. *Factor2* is principally derived from the estimates of working capital accruals developed in Dechow and Dichev (2002). Collectively, the results for the estimates of discretionary accruals are not consistent with my hypothesis that issuers electing to file stealth restatements are also involved with other measures of aggressive accounting.

Hypothesis 14 tests whether specific attributes of the restatement were associated with the decision to file a stealth restatement. The results in Columns 3 and 4 indicate that stealth restatements cover a significantly lower number of reporting periods (*Time*) and had a significantly smaller cumulative effect (*ScaledImpact*). Not surprisingly, SEC involvement is significantly less common with stealth restatements (*SEC*). These results are consistent with the hypothesis that stealth restatements are negatively associated with measures of materiality.

In summary, univariate analyses indicate that issuers that elect to file stealth restatements differ along a number of dimensions. Although I hypothesize that management is strategic in selecting where to disclose financial misstatements, univariate

analyses suggest that stealth restatements are being filed by smaller, less profitable issuers. The results also indicate that stealth restatements are less material. Finally, the results highlight the benefits of external corporate governance mechanisms.

Multivariate Analysis

I now present the results of multivariate analyses on the significant variables identified in the previous section. Following Dechow et al. (2011), I use a backward elimination technique to identify the final models.⁴⁰ Although this methodology is inherently atheoretical, it is useful for developing predictive models. Results from the multivariate analysis are presented in Table 1.15.

Table 1.15: Logistic Regression Analyses

Variable	(1)	(2)
Intercept	-0.494	-0.9942**
AuditorInvolved	-0.8628	-0.5269**
CoreAccount	-0.174	-0.4615**
Fraud	-0.4584	-1.6432
ICFR	0.2719*	0.1445
Leverage	-0.2706	-0.4796
LnAssets	0.0406	0.0686
LnAuditFees	0.0133	0.0371**
PercentOwnership	-0.2822	-0.3418*
RSSTAccruals	0.5897**	0.5116
ScaledImpact	-2.0118	-7.4255
SEC	-1.5048***	-1.8468**
Time	-0.1563***	-0.1328***
Contains Industry and Year Effects	No	Yes
Pseudo R ²	10.2%	9.6%

***, **, * Indicate p-values significant beyond the 1%, 5% and 10% levels, respectively.

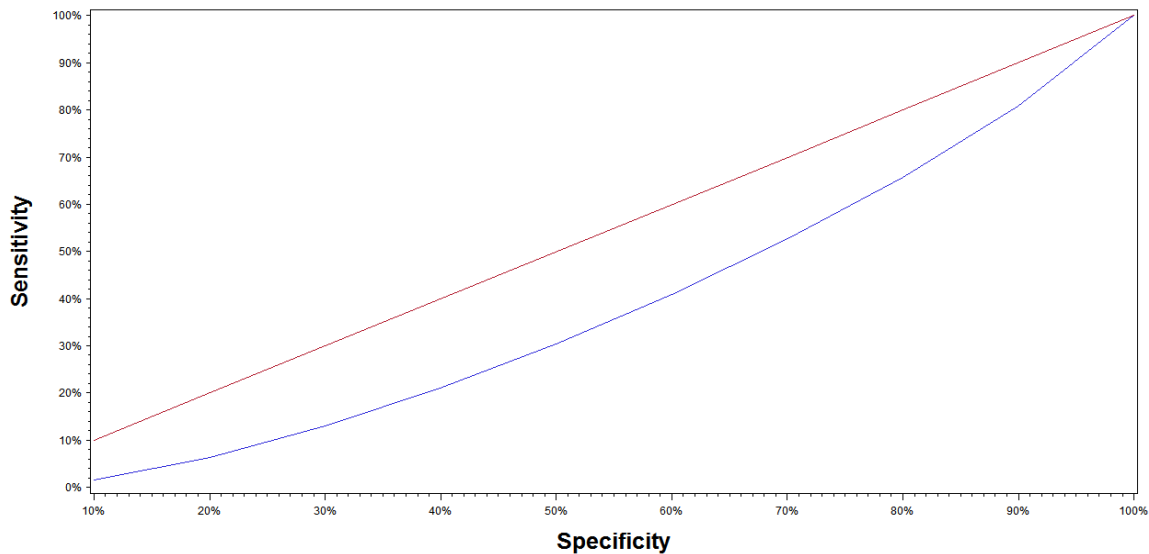
Interestingly, only a handful of the significant variables identified in univariate analyses offer unique explanatory power. Columns 1 and 2 of Table 1.16 indicate that

⁴⁰ As described in Dechow et al. (2011), the backward elimination technique first estimates a model that includes all of the significant variables identified from univariate analyses. A computational algorithm is used to compute a first-order approximation of the slope estimates (Lawless and Singhal (1978)). These estimates are used to remove variables from the baseline model.

issuers are significantly less likely to file stealth restatements if the SEC (*SEC*) is involved with the restatement. Although the estimates for issuer size (*LnAssets*) and restatement materiality (*ScaledImpact*) are not statistically significant, the number of misstated periods (*Time*) is significant. Column 2 indicates that, if industry and time dummies are included in the model, issuers are significantly less likely to file stealth restatements if the external auditor (*AuditorInvolved*) or if the misstatement affects a core account (*CoreAccount*).

Figure 1.3 presents the Lorenz Curve for the logistic model. The Gini Coefficient is 0.28 and indicates that the model offers some ability to predict which issuers will elect to file stealth restatements.

Figure 1.3: Lorenz Curve for the Logistic Model



Overall, the results indicate that investors may be reacting appropriately to the stealth restatements. The attenuated market response would be justified if stealth restatements involve fewer misstated periods and are less likely to affect core accounts. Although stealth restatements do not seem to be less material when measured as a

percentage of total assets (*ScaledImpact*) and are not significantly less likely to involve allegations of fraud, they do seem to be monitored by external governance mechanisms.

1.5 Conclusion

The passage of SOX represented a significant change to the financial reporting environment. In addition to establishing new regulations on corporate governance, SOX also contains provisions designed to improve financial reporting quality. Specifically, Section 409 of SOX requires issuers to disclose value relevant information on a timely basis. To enact Section 409, the SEC implemented Rule 33-8400 which requires issuers to disclose misstatements in Form 8-K within four business days of determining that previously issued financial statements should no longer be relied upon.

The implementation of Rule 33-8400 ostensibly requires issuers to file Form 8-K as notification of a misstatement. However, the SEC provided subsequent guidance which was interpreted to mean that issuers are not always required to file Form 8-K when planning to restate their financials. This guidance seems to have validated so-called “stealth restatements” in which issuers correct misstated financials in one of their periodic filings with the SEC.

One of the most salient features of a financial restatement is the negative short-term effect on the issuer’s cost of capital. However, extant research finds that issuers filing stealth restatements are largely able to avoid a punitive market reaction. I argue that by suppressing news of the misstatement, stealth restatements provide management with a strategic alternative to a more prominent restatement announcement. Thus,

understanding potential strategic motivations for violating SEC rules and regulations provides important insight into managerial decision making.

I find that the decision to file a stealth restatement seems to depend importantly on a number of factors associated with financial restatements identified in previous research. Most notably, stealth restatements appear to be less material and are less likely to involve accounts that investors are most concerned about. The results also indicate that external corporate governance mechanisms are serving investor interests. Contrary to previous research (Plumlee and Yohn, 2008), I am unable to conclude that management is strategic in choosing where to disclose misstatements.

Still, the decision to file a stealth restatement is contrary to SEC regulations and could be viewed as a conflict of interests between managers and stakeholders. Although I analyze a number of different motivations for filing stealth restatements, there are several potential topics for future research. First, SEC changes have made it permissible to file stealth restatements under a specific set of circumstances. This could provide issuers with an incentive to obtain a specific accounting treatment that lacks substance. For example, previous research has documented the significant efforts that managers have taken to obtain desirable accounting treatments for a variety of disclosures including: depreciation methods, pension amortization periods, exploratory costs and lease accounting (see, e.g., El-Gazzar et al., 1986). Understanding these motivations provides a better understanding of the relationship between managerial decisions and financial reporting quality. Second, although I was able to collect data for a reasonably large sample of restatement filings, I am still able to analyze only a percentage of the population. Because data vendors provide less complete coverage of small issuers, the analyzed sample may not be

representative of the population of issuers filing restatements. This problem may be particularly acute with respect to issuers filing stealth restatements as some of my results indicate that these issuers are yet smaller and have less analyst coverage. I am left to wonder how the effects of sample bias would impact my findings.

One important caveat is that my interpretation of the results is based on the assumption that stealth restatements pose risk to stakeholders because they are inconsistent with SEC regulations. If stealth restatements are actually beneficial to stakeholders, my interpretation of the findings is incorrect. In addition, results about the attenuated market response to stealth restatements could be explained by the fact that restatements disclosed in periodic filings could provide managers with the opportunity to offer a more complete explanation about the nature of the misstatement. This explanation is typically not offered in Form 8-K filings and could assuage investor concerns about the effects of the misstatement. As a result, stealth restatements may not represent a conflict of interests between managers and stakeholders.

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Appendix

Appendix 1A: Discretionary Accruals Models

Much of the academic literature estimates discretionary accruals as deviations from “normal” accruals. The various models that have been proposed to estimate discretionary accruals differ in the way they estimate “normal” accruals. What follows is a description of estimation procedure for the modified Jones model outlined in Dechow, Sloan and Sweeney (1995).⁴¹ Using simple regression, the model establishes a “normal” level of accruals based on a firm’s level of sales and property plant and equipment. For each two-digit SIC-year grouping, we estimate the following model,

$$\frac{TA_{it}}{Assets_{i,t-1}} = k_{1t} \frac{1}{Assets_{i,t-1}} + k_{2t} \frac{\Delta REV_{it}}{Assets_{i,t-1}} + k_{3t} \frac{PPE_{it}}{Assets_{i,t-1}} + \varepsilon_{it}. \quad (1)$$

In Equation (1), for fiscal year t and issuer i , TA denotes total accruals defined as:

TA_{it} = Earnings before extraordinary items and discontinued operations minus operating cash flows;

$Assets_{i,t-1}$ = Total assets;

ΔREV_{it} = Change in revenues from the preceding year; and

PPE_{it} = Gross value of property, plant, and equipment.

The coefficient estimates from Equation (1) are then used to estimate the firm-specific “normal” accruals (NA_{it}):

⁴¹ The Jones Model was developed in Jones (1991). Dechow, Sloan and Sweeney (1995) find that the modified Jones model is more powerful in detecting earnings management.

$$NA_{it} = \hat{k}_{1t} \frac{1}{Assets_{i,t-1}} + \hat{k}_{2t} \frac{(\Delta REV_{it} - \Delta AR_{it})}{Assets_{i,t-1}} + \hat{k}_{3t} \frac{PPE_{it}}{Assets_{i,t-1}} + \varepsilon_{it}, \quad (2)$$

where ΔAR_{it} is the change in accounts receivable from the preceding year. Discretionary accruals are then calculated by subtracting “normal” accruals from each firm’s actual accruals:

$$DA_{it} = (TA_{it} / Assets_{i,t-1}) - NA_{it}. \quad (3)$$

Chapter 2

To Deter or not to Deter? Managerial Compensation and Aggressive Financial Reporting

Abstract

The first chapter of my dissertation provides background information on the SEC disclosure requirements regarding financial restatements. Although the disclosure requirements are intended to create a uniform financial reporting environment, some issuers elect to disclose financial restatements only in one of their periodic reports. Previous academic research documents an insignificant market reaction to these so-called stealth restatements. I argue that the attenuated response to stealth restatements provides management an incentive to circumvent SEC disclosure requirements. I analyze a number of factors but am unable to conclude that management is acting strategically in choosing a disclosure source for financial misstatements.

Managerial compensation contracts frequently provide various forms of equity compensation. I argue that the attenuated market response to stealth restatements provides management with an incentive to circumvent SEC disclosure requirements because it preserves the value of these equity grants. This paper analyzes how managerial compensation affects the decision to file stealth restatements. Contrary to my expectations, I find that options wealth is negatively associated with the decision to file stealth restatements. However, I find that this association is nonlinear suggesting that managerial compensation contracts need to be constructed carefully in order to align

managerial and stakeholder interests. This result is important and has implications for the broader academic literature on managerial compensation and aggressive financial reporting practices.

“Such truth as opposeth no man’s profit nor pleasure is to all men welcome.”

– Thomas Hobbes

2.1 Introduction

Chapter 1 of my dissertation provides background information on the SEC disclosure requirements for financial restatements. Some issuers choose to circumvent these requirements and elect to file so-called stealth restatements. Previous academic research documents an insignificant market reaction to stealth restatements. I argue that the attenuated market response to stealth restatements provides management with an incentive to violate SEC disclosure regulations. I analyze a variety of factors and find that stealth restatements tend to be less material and less frequently affect financial accounts important to investors. Thus, I am unable to conclude that management is acting strategically in electing to file a stealth restatement.

Regardless of my conclusion, stealth restatements still violate the SEC’s intention to create a uniform financial reporting environment. If the SEC chose to enforce such matters, management’s decision to file a stealth restatement could affect the long-term viability of the company. Thus, stealth restatements could represent a conflict of interests between managerial and stakeholder interests.

This paper analyzes how managerial compensation affects the disclosure source of financial misstatements. Specifically, I analyze how the value of in-the-money, exercisable options affects the decision to file stealth restatements. I argue that the de minimis market response to stealth restatements provides management with an incentive to circumvent SEC disclosure regulations. As such, compensation contracts that award

management with significant personal wealth in the form of stock options could create a conflict of interest between management and stakeholders.

Contrary to my expectations, I find that options wealth is negatively associated with the decision to file stealth restatements. However, I find that the association between managerial options wealth and misstatement disclosure source is nonlinear. This result suggests that managerial compensation contracts need to be constructed carefully in order to align managerial and stakeholder interests.

This paper makes two contributions to the academic literature on managerial compensation and aggressive financial reporting. Although numerous papers have been written on the topic, the results are often subtle and dispositive conclusions have yet to be drawn. This paper contributes to the literature by analyzing a situation in which management has an incentive to pursue aggressive accounting in order to avoid a potentially significant loss in personal wealth. Choosing a disclosure source for financial misstatements represents an instance of revealed preference. The finding that options wealth does not necessarily induce managers to act in their own best interests suggests that options can be an effective means to align managerial and stakeholder interests. Second, I document a nonlinear relationship between managerial compensation and a measure of aggressive financial reporting. To my knowledge, this is the first paper to document such a relationship. This could reconcile some of the conflicting results in the academic literature on managerial compensation and aggressive financial reporting.

2.2 Related Literature and Hypotheses

In the standard principal-agent framework, compensation serves the dual function of allocating risk and rewarding productive effort (Holmstrom and Milgrom, 1991). Although risk-averse agents prefer a fixed wage, a Pareto optimal allocation of risk is generally impossible because it will not induce the agent to exert maximal effort. One solution to address the problem of moral hazard is for principals to offer agents performance-based compensation that is tied to observable measures of effort. Even if the measures are imperfectly correlated with effort, the additional information can be used to design contracts that improve the welfare of both the principal and the agent (Holmstrom, 1979). In the context of financial markets, measures of effort often include financial accounting ratios and market based measures of company performance.

A significant body of academic research has been devoted to the structure of compensation contracts. Managerial compensation contracts frequently provide various types of compensation that are designed to align the incentives of managers and shareholders over different time horizons (see Jensen and Meckling, 1976; Rehnert, 1985; Jensen and Murphy, 1990; Shleifer and Vishny, 1997; or Dennis, 2001). The efficacy of these contracts is debatable as litigation has challenged the practice of granting stock options and other equity based compensation plans (see Vagts, 1983; Thomas and Martin, 2001; or Peng and Roell, 2008). In particular, the granting of stock options can be shown to encourage managers to accept riskier investments (see Haugen and Senbet, 1981; or Defusco et al., 1990).⁴² Others have found that the use of stock options in compensation contracts is correlated with a variety of managerial induced

⁴² Jensen and Meckling (1976) show that as managers choose to accept riskier projects, they induce a wealth transfer between bondholders and shareholders leading to another source of potential litigation risk.

financial reporting problems.⁴³ Jensen (2005) argues that overvalued equity exacerbates the conflict of interest between managers and stakeholders as it compels managers to deliver a level of performance that is unattainable. Rather than aligning incentives, compensation packages that are tied to inflated performance measures create incentives for managers to pursue value destroying activities such as earnings management or financial fraud.

Previous research analyzing the association between accounting irregularities and managerial compensation has produced mixed results.⁴⁴ One strand of the research hypothesizes that equity-based compensation programs create incentives for managers to pursue aggressive or fraudulent accounting practices (see Harris and Bromiley, 2007; Efendi et al., 2007; Bergstresser and Philippon, 2006; or Cheng and Warfield, 2005). The argument put forth in these papers is that as compensation becomes more sensitive to short-term stock performance, management has added incentive to pursue aggressive accounting practices. The majority of these papers find some evidence of a positive association between equity-based compensation programs and accounting irregularities. The other strand of the research more explicitly considers the possibility that equity-based compensation programs may reduce the likelihood of accounting irregularities (see O'Connor et al., 2006; Burns and Kedia, 2006; or Armstrong et al., 2010). These papers argue that equity-based compensation programs are successful at reducing moral hazard because they align managers' and shareholders' incentives and deter managers from pursuing value destroying aggressive accounting practices. In some cases, these papers

⁴³ See Armstrong et al. (2010) for a comprehensive listing of the literature linking stock options to financial reporting problems.

⁴⁴ Accounting irregularities are typically measured by a handful of proxies: financial restatements, accounting and audit enforcement releases (AAERs), evidence of earnings management, discretionary accruals, or the likelihood of meeting analysts' expectations.

find a negative correlation between equity-based compensation programs and accounting irregularities.

Regardless of the initial hypotheses, the results from the papers on managerial compensation and accounting irregularities are highly nuanced and seem to depend importantly on the types of compensation analyzed and the design of the models.⁴⁵ What follows is a brief summary of the major findings as they relate to various measures of aggressive financial reporting.

Earnings Management

A large body of the academic literature on earnings management focuses on the use of various types of accruals. Accrual accounting requires companies to recognize economic events regardless of whether cash transactions have occurred. Although this should lead to a more accurate portrayal of operating performance and financial condition, the subjectivity and judgment involved in the estimation of various discretionary accruals also provides an opportunity for managers to engage in earnings management. As such, estimates of discretionary accruals are frequently used as proxies for earnings quality (Frankel et al., 2002; Klein, 2002).

Bergstresser and Philippon (2006) find that the sensitivity of CEO wealth to issuer share prices is positively correlated with estimates of discretionary accruals. In addition, Bergstresser and Philippon find that CEOs exercise more options during periods with particularly high levels of discretionary accruals. These results are consistent with the

⁴⁵ Armstrong et al. (2010) argue that many of the papers on managerial compensation and accounting irregularities have ignored the potential for endogenous matching of managers and their compensation packages. The effect of this would likely bias estimated coefficients and would make inferences unreliable. This issue will be addressed when I check for the robustness of the results.

hypothesis that tying their wealth to issuer performance leads managers to pursue aggressive accounting practices.

Larcker et al. (2007) extend the literature by looking at other types of executive compensation. The authors find mixed evidence of a correlation between executive compensation packages and estimates of discretionary accruals. Using a large cross-section of issuers, Larcker et al. find that executive compensation packages are positively correlated with estimates of smoother net income and negatively correlated with accruals quality. Other estimates of discretionary accruals do not appear to be correlated with executive compensation packages.

Other important contributions to the executive compensation and earnings management literature analyze the extent to which the board of directors is complicit in allowing executives to engage in earnings management. Since boards are responsible for approving the terms of executive compensation contracts, they should be able to devise contracts that align stakeholder and managerial incentives (Murphy, 1999). Using a theoretical model, Ronen et al. (2006) show that the board of directors is permissive of earnings management because it allows the board to engage in profitable insider trading. In their model, the authors assume that the board of directors is the only other party that knows of the earnings management. To help conceal the fact that the disclosed earnings are not a true representation of the issuer's performance, Ronen et al. show that the board of directors will adjust the value of executive compensation contracts to coincide with the disclosed profitability. Even if the board of directors is not complicit in the decision to engage in earnings management, evidence suggests that managers will time the release of disclosures, both positive and negative, to coincide with the dates of options grants to

maximize their expected award (Aboody and Kasznik, 2000; Baker et al., 2003). These types of results pose a serious challenge to the practice of incentivizing management based on disclosed performance.

SEC Investigations

Since 1982, the SEC has issued Accounting and Auditing Enforcement Releases (AAERs) at the conclusion of an investigation against an issuer, an auditor, or an officer for alleged accounting and/or auditing misconduct. Although the listed parties in AAERs do not formally plead guilty to misconduct, they do consent to assessed penalties. Despite this potential shortcoming, academics have used the issuance of an AAER as a proxy for intentional accounting misstatement and/or audit failure.

Erickson et al. (2006) analyze how equity-based compensation structures influence the likelihood of being issued an AAER. The authors use a variety of equity incentive measures, but do not find evidence of a correlation between equity-based compensation and the issuance of an AAER. In addition, Erickson et al. do not find that executive stock sales or options exercises are correlated with the issuance of an AAER.

These results stand in direct contrast to Johnson et al. (2008) who find that executives employed by issuers that received an AAER were compensated with significantly more unrestricted stock relative to executives employed by issuers that did not receive an AAER. Johnson et al. argue that their paper makes a methodological improvement over the Erickson et al. (2006) paper by identifying subtleties in the data and statistical methodology used.⁴⁶ When Johnson et al. ignore these subtleties, they are able to produce results similar to Erickson et al. (2006).

⁴⁶ In particular, Johnson et al. (2008) focus on the average across executives of the compensation measures analyzed as opposed to the sum of the measures used in Erickson et al. (2006). Also, Johnson et al. use

Financial Restatements

The most relevant strand of the literature analyzes how managerial compensation affects the likelihood of financial misstatement. Burns and Kedia (2006) analyze the association between various components of managerial compensation contracts and the likelihood of pursuing unusual accounting practices. The authors find that the sensitivity of CEOs option portfolios to changes in equity value is a significant factor in predicting the likelihood of a financial restatement. Other forms of managerial compensation such as equity grants, restricted shares or long-term equity incentive payments do not seem to provide as much incentive to pursue aggressive accounting practices. Burns and Kedia argue that the convexity of CEO wealth introduced by options creates a distortion in managerial incentives because it limits the effects of negative outcomes once the misreporting is discovered. Efendi et al. (2007) extend the literature by linking financial restatements to overvalued equity. After confirming the sensitivity of managerial wealth result identified in Burns and Kedia (2006), Efendi et al. show that an increase in share price is a significant factor in predicting the likelihood of a restatement. Efendi et al. then horse-race the models and find that only the value of in-the-money options remains significant in predicting restatements. This result suggests that the value of in-the-money options is able to capture the effects of both CEO sensitivity to share prices and overvalued equity. The benefit of this result is that the value of in-the-money options is disclosed in periodic filings, which obviates the need to make an assumption about vesting periods that is required to calculate the sensitivity measure used in Burns and Kedia (2006).

conditional logisitic regression as opposed to unconditional logistic regressions. The latter has been shown to produce inconsistent and asymptotically biased parameter estimates in matched-pairs samples.

The argument for a positive correlation between managerial compensation and accounting restatements is compelling. However, it is possible to design compensation contracts that reduce moral hazard and compel executives to act in the best interests of the firm (Rehnert, 1985). In the presence of “golden handcuff” clauses, such as significant wealth in the form of stock options, it would be irrational for managers to risk dismissal or re-contracting resulting from the discovery of value destroying aggressive accounting practices.⁴⁷ O’Connor et al. (2006) argue that CEOs with positively valued stock options stand to lose a significant amount of their wealth if news breaks that negatively impacts the value of the company. If this is true, CEOs will avoid aggressive accounting practices to decrease the likelihood that their wealth is negatively impacted by their own actions.⁴⁸ O’Connor et al. find that CEO stock options are negatively associated with financial restatements in the presence of certain corporate governance mechanisms.⁴⁹ This suggests that, in some cases, stock options are an effective means of aligning CEO and shareholder interests.

The subtlety of this finding highlights some of the concerns about research on the association between managerial compensation and financial restatements. Armstrong et al. (2010) argue that most of the prior studies make stringent assumptions about the functional form of the relationship between managerial compensation and accounting irregularities. To address these concerns, the authors construct a sample that matches

⁴⁷ Previous research has found that managers are more likely to either be dismissed or have their compensation contracts renegotiated after the announcement of a restatement (Desai et al., 2006; Cheng and Farber, 2008).

⁴⁸ O’Connor et al. (2006) find that the option wealth of other executives is positively correlated with CEO option wealth. This simplifies their analysis as CEO option wealth can be used to proxy for executive option wealth, in general.

⁴⁹ In particular, O’Connor et al. (2006) find that CEO stock options are negatively correlated with incidences of fraudulent financial reporting if: (1) The CEO was also Chairman of the Board and the Board had stock options or (2) The CEO was not Chairman of the Board and the Board did not have stock options.

firms on characteristics of the contracting environment, but varies in the levels of CEO equity incentives. This approach is designed to reduce the effects of specification errors that occur when an incorrect functional form of the model is assumed. The authors find that the level of CEO equity incentives is negatively correlated with financial restatements. Like the findings in O'Connor et al. (2006), this suggests that equity incentives are able to reduce the agency costs associated with financial reporting.

In summary, the fact that so many authors have analyzed the correlation between managerial compensation and the likelihood of accounting irregularities undoubtedly reflects the complexity of the relationship. Despite similarities in the samples and designs of the models, the findings of these papers are often subtle and highly nuanced.

One of the potential limitations of these papers is that they analyze differences in the structure of managerial compensation contracts between companies alleged to have pursued aggressive accounting practices and companies in which aggressive accounting has either not been pursued or not yet been detected. This makes it difficult to draw generalizable conclusions about how managerial compensation contracts should be structured to align managerial and stakeholder incentives.

My paper differs in that I analyze a sample of issuers that have all been alleged to pursue aggressive financial reporting. Once a misstatement has been detected issuers face a choice between “coming clean” with financial markets or “continuing to push the envelope” of aggressive financial reporting. Previous literature documents that if management elects to come clean, markets will react negatively (Palmrose et al., 2004). Conversely, management has the ability to avoid a negative market reaction by pushing the envelope and restating without a formal announcement (Swanson et al., 2007;

Plumlee and Yohn, 2008; and Myers et al., 2010). Although the attenuated market response may be initially appealing to stakeholders, filing stealth restatements is contrary to SEC regulations and could subject the issuer to enforcement that threatens the long-term viability of the company. Thus, management's choice of a source for misstatement disclosures is a revealed preference between serving stakeholder interests and preserving managerial wealth. If options wealth can initially lead management to pursue aggressive accounting practices, I argue that it will also lead management to continue to pursue similar practices once a misstatement has been detected.

Hypothesis 1: The decision to file a stealth restatement is positively associated with the value of in-the-money options in executive compensation contracts.

2.3 Data and Methodology

This analysis uses the same dataset constructed in Chapter 1. The initial sample comprises all issuers that filed a restatement of their annual financial statements⁵⁰ (Form 10-K) between January, 2000 and December, 2011. Restatements are classified as either “stealth” or “non-stealth” depending on whether the issuer concomitantly filed a statement of non-reliance. The dataset is augmented with executive compensation data obtained from ExecuComp. Compensation data is also hand-collected from the definitive proxy statement (Form DEF 14-A) to increase sample coverage.

To test Hypothesis 1, I construct a variable to measure the sensitivity of management's compensation package to short-term share price. Although the executive

⁵⁰ Quarterly (Form 10-Q) restatements tend to focus on technical accounting errors and are typically less material (Hennes et al., 2008).

compensation literature frequently explores the role of the CEO's compensation package on restatements, Jiang et al. (2010) find that several measures of aggressive accounting practices are more correlated with the CFO's compensation package. To address this potential complication, I obtain data for the five highest paid managers, when available. Using data provided in the definitive proxy statement (DEF 14A), I construct a ratio of the value of unexercised, exercisable options to base salary for each of the listed managers. I then take the average of this ratio for the number of listed managers to construct a variable that should capture management's incentive to avoid a decline in share price (Johnson et al., 2009). Table 2.1 presents descriptive statistics for the data used in the analysis.

Table 2.1: Descriptive Statistics

Variable	Mean	Standard Deviation	5th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Control Variables							
AuditorInvolved	79.50%	40.37%	--	--	--	--	--
CoreAccount	0.31	0.46	--	--	--	--	--
Fraud	2.90%	16.96%	--	--	--	--	--
ICFR	17.1%	37.7%	--	--	--	--	--
Leverage	0.21	0.25	0.00	0.01	0.14	0.32	0.53
LnAssets	6.11	2.06	2.78	4.76	6.09	7.39	8.76
LnAuditFees	6.06	5.69	0.00	0.00	8.91	11.36	12.58
PercentOwnership	31.3%	46.4%	--	--	--	--	--
RSSTAccruals	0.013	1.388	-0.392	-0.075	0.014	0.092	0.218
ScaledImpact	0.34%	3.02%	0.00%	0.00%	0.00%	0.00%	0.27%
SEC	8.65%	28.11%	--	--	--	--	--
Time	2.40	2.13	0.25	1.00	2.00	3.00	4.75
Base Salary							
CEO Salary	\$ 412,696	\$ 321,500	\$ 105,000	\$ 200,068	\$ 318,977	\$ 517,000	\$ 834,741
CFO Salary	\$ 299,791	\$ 244,235	\$ 77,134	\$ 164,295	\$ 250,000	\$ 377,885	\$ 553,846
Average Salary	\$ 276,317	\$ 261,705	\$ 21,000	\$ 99,873	\$ 200,357	\$ 371,077	\$ 577,327
Options Wealth							
CEO Options Wealth	\$ 3,909,842	\$ 18,435,494	\$ 5,470	\$ 76,500	\$ 414,803	\$ 2,071,701	\$ 7,838,377
CFO Options Wealth	\$ 1,637,185	\$ 8,226,371	\$ 2,895	\$ 26,000	\$ 202,800	\$ 948,000	\$ 3,252,625
Average Options Wealth	\$ 1,853,861	\$ 10,630,136	\$ 1,094	\$ 20,500	\$ 154,943	\$ 899,180	\$ 3,552,944
Sensitivity Ratio							
CEORatio	\$ 16	\$ 1,584	\$ 0.03	\$ 0.32	\$ 1.47	\$ 5.44	\$ 15.70
CFORatio	\$ 5	\$ 613	\$ 0.03	\$ 0.30	\$ 1.19	\$ 3.98	\$ 10.33
OfficersRatio	\$ 7	\$ 759	\$ 0.04	\$ 0.36	\$ 1	\$ 5	\$ 12
Options as a % of Total Compensation							
CEOPercent	50.38%	35.66%	0.00%	14.21%	52.94%	85.26%	94.48%
CFOPercent	46.11%	33.99%	0.00%	11.43%	47.21%	78.53%	91.54%
OfficersPercent	42.69%	28.65%	0.00%	17.50%	43.11%	65.89%	82.32%

As Table 2.1 indicates, senior officers are frequently compensated with options grants that are worth multiples of their base salary. However, the data is highly skewed with the mean of the ratio of CEO option wealth to base salary (*CEORatio*) exceeding the 90th percentile.⁵¹ To address this issue, I Winsorize the data at the 5th and 90th percentile. I also construct a variable that measures options wealth as a percentage of total compensation (*CEOPercent*).

2.4 Results

I begin with univariate analyses to test Hypothesis 1. Because the underlying data are not typically symmetrically distributed, I present nonparametric Mann-Whitney tests alongside two-sample T-tests.

Univariate Analysis

Table 2.2 presents results from simple T-tests on the differences in means as well as results from the non-parametric Mann-Whitney test. The results indicate that executive officer options wealth is associated with the decision to file a stealth restatement. The results in Columns 3 and 4 indicate the CEOs and CFOs of issuers that elected to file a stealth restatement had significantly lower wealth in the form of in-the-money exercisable options. The test statistics on both the ratio of options wealth to salary (*CEORatio*) and the percentage of options wealth to total compensation (*CEOPercent*) are significant beyond the 1% level of confidence. To the extent that the disclosure of a restatement in a Form 8-K is beneficial to stakeholders because it is in accordance with SEC regulations, these results provide positive support for the hypothesis that equity

⁵¹ There is also the possibility that this result is driven by discrepancies in financial reporting.

incentives are successful at aligning managerial and stakeholder incentives.⁵² I also find limited support for the hypothesis that the options wealth of the other officers is associated with the decision to file a stealth restatement (*CFOPercent* and *OfficersRatio*). These results are consistent with the findings in Jiang et al. (2010) and Johnson et al. (2009), respectively.

Table 2.2: Univariate Analyses

	(1)	(2)	(3)	(4)
Variable	Stealth Mean	Non-Stealth Mean	T-Test	Mann-Whitney Test
AuditorInvolved	0.65	0.83	9.65***	-9.47***
CEOPercent	0.43	0.52	3.70***	-3.82***
CEORatio	3.35	5.09	3.71***	-3.82***
CFOPercent	0.40	0.47	2.94***	-3.07***
CFORatio	2.58	2.90	1.17	-0.93
CoreAccount	0.29	0.32	1.25	-1.25
Fraud	0.03	0.03	0.71	-0.67
ICFR	0.65	0.53	-4.92***	4.77***
Leverage	0.18	0.19	0.43	0.06
LnAssets	5.88	6.16	2.75***	-2.86***
LnAuditFees	5.70	6.16	1.65*	-1.8*
OfficersPercent	0.40	0.43	1.63	-1.57
OfficersRatio	2.70	3.35	2.70***	-2.15**
PercentOwnership	0.59	0.65	2.04**	-1.7*
RSSTAccruals	0.17	-0.03	-1.36	0.16
ScaledImpact	0.00	0.01	0.67	-2.44**
SEC	0.03	0.10	6.85***	-5.04***
Time	1.95	2.51	5.38***	-3.45***

***, **, * Indicate p-values significant beyond the 1%, 5% and 10% levels, respectively.

Multivariate Analysis

I use variables identified in Chapter 1 of this dissertation as controls and run separate regressions for each measure of managerial options wealth. Table 2.3 presents results from the multivariate analyses.

⁵² Of course, the opposite conclusion should be drawn if filing a stealth restatement is beneficial to stakeholders. In this case, the argument could be made that limiting the effects of the restatement disclosure on capital prices is more beneficial to stakeholders than adhering to SEC regulations. I do not find this to be a compelling argument because the SEC would likely pursue enforcement actions if large issuers filed stealth restatements, or if there were allegations of fraud accompanying stealth restatements.

Table 2.3: Multivariate Analyses

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	-1.59**	-1.88**	-1.4**	-0.67	-0.83	-0.91
AuditorInvolved	-0.34	-0.3	-0.37	-0.45*	-0.47*	-0.46*
CoreAccount	-0.97***	-0.97***	-0.64**	-0.63**	-0.54**	-0.56**
Fraud	-13.43	-13.23	-14.06	-1.47	-1.47	-1.51
ICFR	0.81***	1.04***	0.29	0.24	0.3	0.25
Leverage	-1.07	-1.05	-0.84	-0.97*	-0.91	-0.91
LnAssets	0.21*	0.21*	0.12	0.12	0.12	0.11
LnAuditFees	0.05*	0.05*	0.05**	0.04**	0.05**	0.05**
PercentOwnership	-1.07***	-1.26***	-0.43	-0.44*	-0.44*	-0.47*
RSSTAccruals	1.23	1.56**	1.08*	0.95	1.03*	0.93
ScaledImpact	13.21	17.96	8.43	3.12	5.09	1.47
SEC	-1.32*	-1.96*	-1.59**	-1.62**	-1.61**	-1.67**
Time	-0.2**	-0.25***	-0.19***	-0.15***	-0.16***	-0.14***
CEORatio	-0.06**	--	--	--	--	--
CFORatio		-0.02	--	--	--	--
OfficersRatio			-0.31	--	--	--
CEOPercent				-1.26***	--	--
CFOPercent					-1.13***	--
OfficersPercent						-0.90**
Contains Industry and Year Effects	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R ²	19.1%	22.8%	13.5%	14.4%	14.1%	12.5%

***, **, * Indicate p-values significant beyond the 1%, 5% and 10% levels, respectively.

The results in Column 1 indicate that the ratio of CEO options wealth to base pay (*CEORatio*) is negatively associated with the decision to file a stealth restatement. This result is contrary to what I had expected and suggests that CEOs are willing to sacrifice personal wealth in order to “come clean” with financial markets once a misstatement has been detected. In addition, the results in Columns 4-6 indicate that all of the estimated coefficients on the variables that calculate options wealth as a percentage of total compensation are negative and statistically significant. These results are consistent with Armstrong et al. (2010) and suggest that equity based compensation programs are successful at aligning managerial and stakeholder incentives even when the actions imply a greater loss in executive wealth.

Robustness Checks

As described above, extant research on executive compensation and accounting irregularities has produced mixed results. Armstrong et al. (2010) note that econometric analyses of matched-pair samples can produce biased parameter estimates and specious inferences if an incorrect functional form is assumed for the true relationship between the outcome and control variables.

To address this issue, I fit a spline function to analyze the relationship between options wealth and the decision to file a stealth restatement. Spline functions have several desirable properties for the description of empirical relationships in the absence of good mathematical models (Wold, 1974). In particular, splines can be used to represent any variation in the dependent variable over arbitrarily defined intervals of the control variable. Splines also avoid introducing inappropriate jumps that can occur when joining separate regression lines (Marsh and Cormier, 2001).

Spline functions are defined as piecewise polynomials of degree n . They are continuous functions that change in subtle ways at specific points called knots. Using the '+' notation developed in Smith (1979), let,

$$u_+ = u \text{ if } u > 0$$

$$u_+ = 0 \text{ if } u \leq 0.$$

Then, for a variable x , an n th degree spline function with K knots can be written as,

$$S(x) = \sum_{j=0}^n \beta_{0j} x^j + \sum_{i=1}^K \beta_{in} (x - t_i)_+^n.$$

To avoid introducing collinearity into the model by adding higher order terms, I estimate a linear spline model. I focus on the ratio of options wealth to base salary

averaged across the executives listed in the definitive proxy statement (*OfficersRatio*).⁵³ Because this measure avoids distorting the data by constraining the distribution to fall between 0 and 1, I argue that it is a more general measure of the effects of options wealth on the decision to file a stealth restatement. I begin by dividing the data into quintiles. Table 2.4 presents averages of the *OfficersRatio* and *StealthRestatement* variables.

Table 2.4: Percentage of Stealth Restatements by Quintiles of Executive Options Wealth

Quintile	Officers Ratio	Stealth Rate
1	0.12	17.4%
2	0.65	21.9%
3	1.69	19.2%
4	3.78	13.7%
5	9.96	14.4%

As evidenced by the change in the percentage of issuers filing stealth restatements across the quintiles, there appears to be a nonlinear relationship between the ratio of options wealth to base salary (*OfficersRatio*) and the decision to file a stealth restatement. In the lowest quintile, the average ratio of options wealth to base salary is approximately 0.12⁵⁴ and approximately 17% of the issuers elect to file stealth restatements. As the average ratio of options wealth to base salary increases to 0.65, the percentage of issuers filing stealth restatements increases to approximately 22% before starting to decline. The nonlinear relationship between executive options wealth and the decision to file a stealth restatement is shown in Figure 2.1.

⁵³ Untabulated results indicate a similar nonlinear, but statistically insignificant association between the decision to file a stealth restatement and the other ratio based measures of executive options wealth. Therefore, the following results are somewhat sensitive to the underlying data.

⁵⁴ This number indicates that the named executives have an average of \$0.12 of in-the-money, exercisable options for every dollar of base salary.

Figure 2.1: Rate of Stealth Restatements by Quintiles of Executive Options Wealth

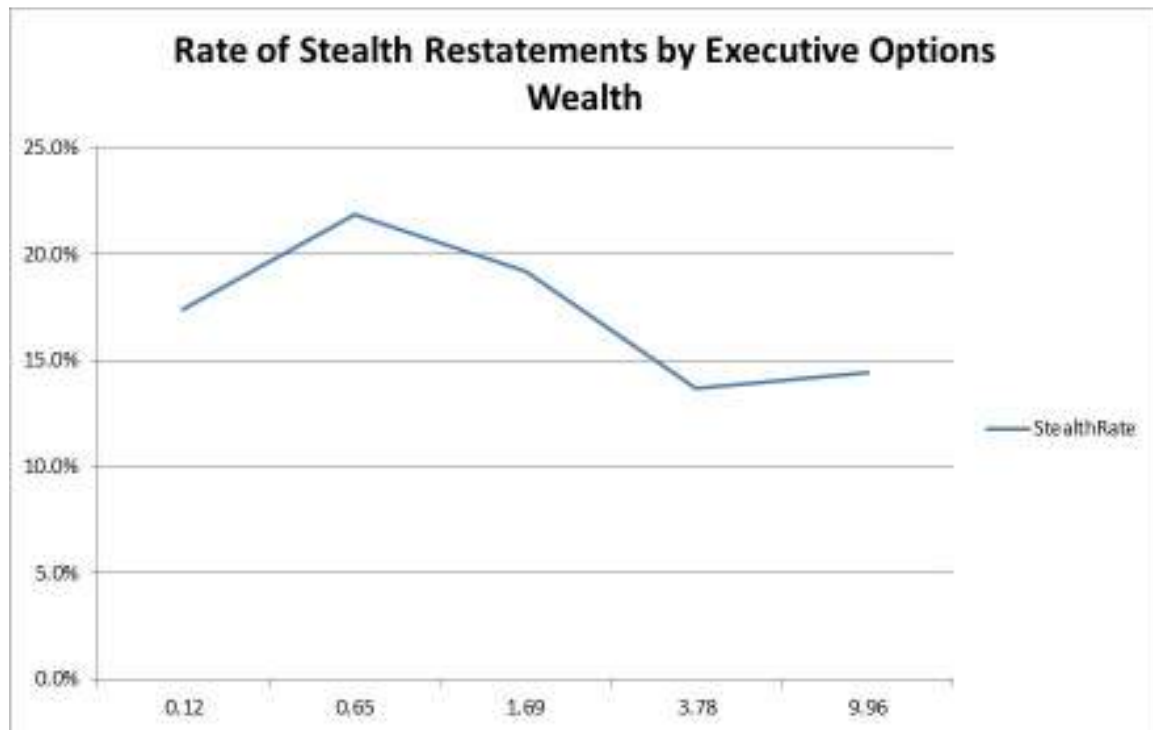


Figure 2.1 suggests that there is a “sweet spot” for the use of options in executive compensation. Executives with comparatively low options wealth seem to file stealth restatements less frequently. As the ratio of options wealth to base salary increases, executives elect to file stealth restatements more frequently. A continued increase in options wealth seems to align managerial and stakeholder incentives up to a point, beyond which there is an increase in the frequency of stealth restatements.

To test the statistical significance of the nonlinear relationship between executive compensation and the decision to file a stealth restatement, I calculate spline knots based on the quintiles presented in Table 2.4. I then estimate a model that controls for significant factors that were previously identified in the multivariate analyses. The final model takes the form,

$$Pr(\text{StealthRstmt}) = \beta_1 + \beta_2 \text{OfcRatio} + \sum_{i=1}^6 \beta_i (\text{OfcRatio} - t_i)^i + \text{Controls} + \varepsilon$$

where t_i is determined by the quintiles of the *OfficersRatio* variable. The results from fitting the spline to the data are presented in Table 2.5.

Table 2.5: Spline Regression Analysis

Variable	(1)	(2)
Intercept	0.2675	0.0169
AuditorInvolved	-1.1212***	-0.8344***
CoreAccount	-0.3522**	-0.5465***
LnAuditFees	0.0209	0.0467***
SEC	-0.6038*	-0.9815**
Time	-0.1959***	-0.1722***
OfficersRatio	-8.2435**	-9.955**
K1	9.947**	11.7954**
K2	-2.2417**	-2.6124**
K3	0.6037*	0.8906**
K4	-0.2209	-0.3285**
Contains Industry and Year Effects	No	Yes
Pseudo R ²	11.9%	11.3%

***, **, * Indicate p-values significant beyond the 1%, 5% and 10% levels, respectively.

The results presented in Columns 1 and 2 of Table 2.5 are consistent with the hypothesis that there is a statistically significant, nonlinear association between executive options wealth and the decision to file a stealth restatement. Although the overall relationship between executive options wealth (*OfficersRatio*) and stealth restatements is negative, both the magnitude and direction of the effect depend on the amount of options wealth relative to base salary (*K1 – K4*).

A nonlinear relationship between measures of executive compensation and aggressive financial reporting is conjectured in Armstrong et al. (2010). Although such a relationship may be able to reconcile conflicting results in extant research, it carries a broader implication. If managers do not have enough of their personal wealth tied to the

long-term performance of the company, they may lack adequate incentive to exert effort and act on behalf of the shareholders. At the same time, if managers have too much of their personal wealth tied to the long-term performance of the company, they may have incentive to act in their own best interests in an effort to either increase or preserve the value of their personal wealth. These results suggest that managerial compensation contracts need to be constructed carefully in order to align appropriately managerial and stakeholder incentives.

2.5 Conclusion

A significant body of academic literature has been devoted to the structure of managerial compensation contracts. In general, compensation contracts should be designed to induce managers to exert an optimal level of effort and to ensure that managers serve the interests of the stakeholders they represent. One of the most popular mechanisms designed to accomplish this objective is to link managerial wealth to the long-term performance of the company via equity grants.

Although equity grants are common, previous research has identified an association between managerial equity wealth and various measures of aggressive financial reporting. The results from this literature are not dispositive and a number of papers have found that managerial equity wealth can deter aggressive financial reporting by aligning managerial and stakeholder incentives.

One of the potential limitations of these papers is that they analyze differences in the structure of managerial compensation contracts between companies alleged to have pursued aggressive accounting practices and companies in which aggressive accounting has either not been pursued or not yet been detected. This makes it difficult to draw

generalizable conclusions about how managerial compensation contracts should be structured to align managerial and stakeholder incentives. My paper differs in that I analyze a sample of issuers that have all been alleged to pursue aggressive financial reporting. This allows me to analyze what managers do once a misstatement has been detected.

Although SEC regulations require managers to disclose the misstatement in Form 8-K, issuers do not universally adhere to these regulations. In some instances, management appears to attempt to suppress news of the misstatement by disclosing it in a periodic filing with the SEC. Because the improper disclosure could lead to SEC enforcement, the decision to file a stealth restatement is tantamount to a decision to continue to pursue aggressive financial reporting. On the other hand, issuers that disclose misstatements in Form 8-K demonstrate a willingness to work with the SEC to correct the misstatement in full view of financial markets. Because news of the misstatement could have an adverse effect on the issuer's cost of capital, the decision to file Form 8-K signals that management is willing to sacrifice, even if temporarily, their personal wealth in order to comply with SEC regulations. This suggests that choice of misstatement disclosure source is a form of revealed preference.

I find that options wealth is negatively associated with the decision to file a stealth restatement. Because stealth restatements violate SEC regulations and could represent a conflict of interests between managers and stakeholders, this result suggests that equity-based compensation contracts can align managerial and stakeholder incentives. I also find evidence that there is a nonlinear relationship between measures of executive compensation and aggressive financial reporting. The identification of a nonlinear

relationship between executive compensation and financial reporting quality may be able to reconcile discrepancies in extant research. Although my analyses specifically focus on stealth restatements, this result should be of interest to a broader section of research.

There are several opportunities for follow-up analyses. First, the availability of managerial compensation data is generally limited to issuers filing proxy statements. As a result, the sample I analyze is biased towards larger issuers so that the results may not generalize toward the broader population of issuers. Second, this paper only analyzes how managerial options wealth affects the decision to file a stealth restatement. Although I argue that exercisable options provide management with an incentive to maintain short-term operating performance, future research should extend the analysis to other types of equity-based compensation. Lastly, I make an assumption that stealth restatements represent a conflict of interest between managers and stakeholders because they do not adhere to SEC disclosure requirements. Future research could test this assumption by analyzing what happens to managerial compensation contracts 1-year after the misstatement disclosure. If managers have their contracts renegotiated after filing stealth restatements, it would provide insight about how compensation committees, who serve on behalf of shareholders, view stealth restatements.

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Chapter 3

Unwelcome Change: Issuer Response to SEC Guidance on Misstatement Disclosure

Abstract

In August 2004, the SEC issued Rule 33-8400 which requires issuers to file Form 8-K to disclose financial accounting misstatements. Subsequent SEC guidance seems to have created loopholes which some issuers have interpreted to mean that they are not always required to file a statement of non-reliance when disclosing a misstatement. Several years later, an SEC sponsored committee recommended that all issuers file Form 8-K to disclose misstatements. Still, the practice of filing so-called stealth restatements persists.

This paper analyzes how factors that are associated with the decision to file a stealth restatement change in response to the various disclosure regimes mandated by the SEC. I find that the predictive value of the estimated models declines with each effort to strengthen the disclosure requirements. In the most recent portion of the analyzed sample, I am unable to distinguish between issuers that elect to file stealth restatements and those that file Form 8-K. Despite efforts to the contrary, this result resembles a “race to the bottom” and has important implications for financial reporting quality.

“The least initial deviation from the truth is multiplied later a thousandfold.” – Aristotle

3.1 Introduction

Congress passed the Sarbanes-Oxley Act of 2002 (SOX) in response to a series of high profile financial accounting scandals. Section 409 of SOX requires companies with publicly traded securities (issuers⁵⁵) to disclose value relevant information on a timely basis. To implement SOX §409, the SEC issued Rule 33-8400 which increased the number of events that are required to be reported on Form 8-K under the Securities Exchange Act of 1934.⁵⁶ Specifically, Item 4.02, “Non-Reliance on Previously Issued Financial Statements or a Related Audit Report or Completed Interim Review” (statement of non-reliance), on Form 8-K is to be filed within four business days after concluding that previously issued financial statements should no longer be relied upon because of an error in financial reporting of the kind addressed in Accounting Principles Board Opinion No. 20.

Under the previous disclosure regime, issuers were required to disclose a relatively small number of significant corporate events. This allowed issuers to delay disclosure of value relevant information until the filing date of their next periodic reports. As a result, financial markets were unable to incorporate such information which

⁵⁵ As defined in SOX, “The term ‘issuer’ means an issuer (as defined in section 3 of the Securities Exchange Act of 1934 (15 U.S.C. 78c)), the securities of which are registered under section 12 of that Act (15 U.S.C. 78l), or that is required to file reports pursuant to section 15(d) of that Act (15 U.S.C. 78o(d)), or that will be required to file such reports at the end of a fiscal year of the issuer in which a registration statement filed by such issuer has become effective pursuant to the Securities Act of 1933 (15 U.S.C. 77a et. seq.), unless its securities are registered under section 12 of the Securities Exchange Act of 1934 (15 U.S.C. 78c) on or before the end of such fiscal year.”

⁵⁶ From the SEC website, “Form 8-K is the “current report” companies must file with the SEC to announce major events that shareholders should know about.” (Available at <http://www.sec.gov/answers/form8k.htm>)

inhibited price discovery. Although Rule 33-8400 should have improved the timeliness of disclosures, Turner and Weirich (2006) note that,

“Shortly after the new reporting requirements were issued, the AICPA’s SEC Regulations Committee explicitly asked the SEC if all restatements needed to be reported on Form 8-K pursuant to Item 4.02. The SEC staff said they would support the view of the profession and not require all restatements to be announced in a Form 8-K, Item 4.02. The decision has led to significantly less transparency surrounding the reporting of restatements.”

Over the course of the next few years, the number of misstatements increased steadily (Glass Lewis, 2006). Although the cause of the increase in the number of restatements is still a topic of discussion, some have argued that it may be the result of overly conservative auditors requiring issuers to restate for reasons that are not driven by materiality (Plumlee and Yohn, 2008). In response to the increased number of restatements, an SEC subcommittee (ACIFR) issued an opinion concluding that the decision to restate previously issued financial statements should be based on investors’ interests.⁵⁷ While the intention of the subcommittee was to reduce the number of immaterial restatements, its decision may have given managers more discretion in determining the materiality threshold for issuing a restatement. As managerial discretion

⁵⁷ As part of an on-going evaluation process, the SEC formed the Advisory Committee on Improvement to Financial Reporting (ACIFR) which was tasked with examining the financial reporting environment. The committee’s goal was to reduce complexity and increase the usability of financial disclosures. Subcommittee III of the ACIFR concentrated on financial restatements and sought to determine whether additional guidance on the materiality of errors would be beneficial. For more information, see SEC Advisory Committee on Improvements to Financial Reporting, <http://www.sec.gov/about/offices/oca/acifr.shtml>.

is associated with a number of aspects of the financial reporting environment,⁵⁸ this decision could have had a significant impact on financial reporting quality.

Although the ACIFR report granted managerial discretion over the decision to restate, there are several reasons why it should have decreased the number of stealth restatements. First, the ACIFR's report recommends that the SEC should revise its instructions to indicate that Form 8-K needs to be filed for all determinations of non-reliance. Second, although managers may use stealth restatements to correct immaterial misstatements,⁵⁹ the ACIFR's report recommends that misstatements deemed to be immaterial may not need to be disclosed. Third, the ACIFR's report recommends that restatements of interim period financials do not necessarily need to result in the restatement of annual period financials. Still, the practice of filing so-called stealth restatements persists.

This paper analyzes how factors that are associated with the decision to file a stealth restatement change in response to the various disclosure regimes mandated by the SEC. I find that the predictive value of the estimated models declines with each effort to strengthen the disclosure requirements. In the most recent portion of the analyzed sample, I am unable to distinguish between issuers that elect to file stealth restatements and those that file Form 8-K. Despite efforts to the contrary, this result resembles a "race to the bottom" and has important implications for financial reporting quality.

This paper contributes to the corporate behavior literature by demonstrating how issuers respond to changes in their regulatory environment. Despite the SEC's efforts to strengthen regulations regarding the disclosure of financial misstatements, issuers

⁵⁸ See Hamberg et al. (2011) for a recent review of the managerial discretion literature.

⁵⁹ The materiality of the restatement was only found to be a significant factor in explaining the decision to file a stealth restatement in univariate analysis. Please refer to Table 1.14.

continue to file stealth restatements. A comparison of issuers electing to file stealth restatements across various regulatory regimes reveals the characteristics of companies that seem to find it most valuable to circumvent SEC regulations. The analysis also demonstrates whether issuers that elect to file stealth restatements become more or less similar to issuers that comply with SEC disclosure regulations. As the SEC strengthens their disclosure requirements, it should compel more issuers to comply because of the increased threat of enforcement. This suggests that issuers that elect not to comply should exhibit more statistical variation in factors associated with the decision to file a stealth restatement. Instead, I find that the issuers continuing to file stealth restatements exhibit less statistical variation in factors previously found to be associated with stealth restatements. This result suggests that as the SEC continues to permit stealth restatements, a broader class of issuers becomes willing to violate the disclosure rules. This result has important implications for financial reporting quality.

3.2 Related Literature and Hypotheses

One of the intentions of mandatory disclosure policies such as Rule 33-8400 is to create a uniform financial reporting environment for issuers by requiring them to disclose value relevant information in a prominent and timely fashion. This objective is consistent with the SEC's adoption of Regulation Fair Disclosure (FD) which is designed to address the selective disclosure of material nonpublic information and enhance existing prohibitions against insider trading. Mandatory disclosure can be a useful tool for achieving these kinds of social objectives because of the potential power of information to influence decisions. At the same time, mandatory disclosure can reduce costs stemming from information asymmetry by providing a mechanism to monitor various

parties (Mahoney, 1995). Evans (2009) argues that regulatory agencies commonly attribute two benefits to mandatory disclosure policies. The first benefit relates to the transparency of the market and stems from the disclosure of previously private information. The second benefit relates to the accountability of market participants and stems from changes in the behavior of parties after information is disclosed.

Economic theory posits that market participants require information about the goods they trade in order for markets to operate efficiently (Stigler, 1957). Extant research finds that changing the degree to which information is available to market participants has significant implications for the functioning of the market (Mailath and Nöldeke, 2008). In the most extreme situation, markets breakdown entirely and trading ceases (Akerlof, 1970). Although there are market-based incentives for companies to provide relevant information to market participants, there are a number of reasons why markets can fail to provide an adequate level of information for market participants to make informed choices. In these situations, mandatory disclosure may be an appropriate policy tool.

Information and Financial Markets

In the context of financial markets, the separation of corporate ownership and control creates asymmetric information between owners and managers (Jensen and Meckling, 1976). Information asymmetry potentially gives rise to two related sources of inefficiency. In one situation, moral hazard results in managers taking actions that are not in the best interests of the owners (Hölmstrom, 1979). In the other situation, adverse selection prevents owners from learning characteristics of the managers that are relevant to the valuation of the company (Pauly, 1974). In theory, mandatory disclosure can

address these agency problems by providing investors with a low-cost mechanism to monitor management's behavior (Mahoney, 1995).

For several decades following the passage of the Securities Act of 1933 ("Securities Act") and the Securities Exchange Act of 1934 ("Exchange Act"), the predominant argument in support of mandatory disclosure was that it promoted fairness in security markets (Fox et al., 2003). This argument hinges on the belief that mandatory disclosure would provide value relevant information to all market participants and would therefore mitigate the possibility that some investors misprice securities. However, academic research on the efficient market hypothesis called into question the necessity of mandatory disclosure by showing that security prices formed in well-functioning markets reflect all available information (Fama, 1970).

Although a well-functioning market obviates the need for mandatory disclosure, this argument requires some additional assumptions to remain valid. The existence of frictions introduces inefficiencies that can cause financial markets to deviate from their theorized ideal (Stoll, 2000). These frictions include: trading costs, taxes, costs of gathering information, lack of depth and/or liquidity. With respect to the context of this dissertation, the most relevant of these frictions is the costs of gathering information.

Information as a Public Good

Economic theory often views security prices as public goods. As such, in well-functioning markets, investors can learn all of the important information about a company by observing the prices of its liabilities (Grossman, 1981). This implies that not all investors need to be sophisticated enough to understand how to incorporate disclosed information into their investment decisions. All that is required is that investors react to

prices generated by the trading activity of more sophisticated market participants. Viewed in this regard, the public goods nature of security prices produces positive externalities.

The public goods nature of security prices also introduces a number of negative externalities. In general, the provision of public goods allows some consumers to free-ride off the efforts of others (Grossman and Hart, 1980a). For example, trading costs provide investors with an incentive to delay their trades and observe the more accurate prices formed after others execute trades.⁶⁰ Similarly, the public goods nature of securities research implies that financial analysts cannot internalize the full economic value of their research because of the incentive for investors to provide other investors with the information (Coffee, 1984). In both cases, the information being provided is important enough so that investors would be willing to purchase it in the open market. However, the public goods component of security prices and investment research implies that both tend to be underprovided.

Mandatory disclosure can ameliorate the negative externalities attributed to information provision by increasing the supply of information available to financial markets. In effect, mandatory disclosure causes companies to overproduce information relative to what financial markets actually demand. This overproduction leads to a reduction in the marginal cost of acquiring and verifying information (Coffee, 1984). Furthermore, mandatory disclosure can eliminate the wasteful duplication of efforts required to produce valuable information.

Social Costs of Information Acquisition

From a social welfare perspective, trading gains do not create additional wealth because of the zero-sum nature of trading. As a result, expenditures to acquire superior

⁶⁰ This may be especially true if the volume of trading impacts price discovery (Hasbrouck, 1995).

private information are wasteful from a societal perspective (Hirshleifer, 1971). By publicly disseminating value relevant information, mandatory disclosure could eliminate wasted efforts to acquire private information in an effort to generate excess trading gains (Bushee and Leuz, 2005).

Voluntary Disclosure

Critics of mandatory disclosure have also argued that competition in well-functioning markets provides management with strong incentives to disclose voluntarily all material information so that mandating disclosures becomes superfluous (Easterbrook and Fischel, 1984). If disclosure is costless, companies will voluntarily disclose proprietary information in an effort to signal the quality of their products (Grossman and Hart, 1980b). Companies with product quality below that of high-quality companies will voluntarily commit to disclosure policies so as to distinguish themselves from companies with even lower product quality. Ultimately, competition compels all companies to disclose regardless of the quality of their products (Ippolito, 1990).

If investors become aware that management is suppressing value relevant information, investors will rationally assume the worst and revise downward their estimates of the company's value (Dye, 1985). Accordingly, investors will sell shares until the price of the company falls to the point where management is forced to disclose in order to prevent further declines in the value of the company. Thus, market forces provide management with an incentive to disclose all information so as to distinguish it from the worst possible information that management could have.

Although competition-based arguments against mandatory disclosure are compelling, they rely on a number of assumptions to support their conclusion. These

assumptions can be grouped into two broad categories: first, that management wants to make a credible commitment to value-maximizing disclosure policies; second, that management can credibly commit to value-maximizing disclosure policies (Ferrell, 2007).

Management Wants to Make a Credible Commitment

In principle, it is possible to devise contracts that align managerial and investor incentives so as to eliminate opportunistic behavior stemming from moral hazard.⁶¹ In practice, it is difficult to structure these contracts in such a manner so that the costs of moral hazard will always outweigh the benefits.

The efficacy of these contracts depends, in part, on the assumption that management is playing a repeated game (Coffee, 1984). In this setting, management can maximize its interests only by maintaining investor confidence. However, the market for corporate control may have changed the degree to which management views itself as playing a repeated game (Jensen and Ruback, 1983). In particular, the increased use of hostile takeovers and leveraged buyouts suggests that management may no longer intend or expect to remain a repeat player (Coffee, 1984). As a result, management may have incentives to suppress information from investors if they can benefit from doing so.

Mandatory disclosure can limit the effects of moral hazard by forcing management to disclose value relevant information. In conjunction with other legal requirements, such as rules outlawing fraud or establishing a fiduciary duty to investors, mandatory disclosure can change the perceived costs and benefits of moral hazard and compel management to disclose all value relevant information.

⁶¹ Murphy (1999) provides a good summary of academic research analyzing how managerial compensation contracts should be structured in order to align the incentives of managers and investors.

Management Can Make a Credible Commitment

In theory, management could voluntarily commit to a policy of full disclosure. In practice, such a policy is time inconsistent because circumstance could provide management with incentive to renege on the promise (Klein and O'Flaherty, 1993). Because investors are aware of the incentives that management has to exploit the information asymmetry that exists between themselves and investors, management does not have a means to make credible statements about the company's financial condition.

Audits help mitigate the costs associated with information asymmetry by providing independent assurance about the reliability of financial information disclosed by managers. However, it is possible that the same sources of inefficiency that exist between owners and managers also exist between owners and auditors.⁶² These inefficiencies could impair the auditor's independence and the likelihood that the auditor detects and reports misstatements (Watts and Zimmerman, 1983).

The SEC mandatory disclosure system can be thought of as a mechanism to solve this contracting problem (Rock, 2001). In choosing to offer securities to the public, management signals a voluntary willingness to adhere to a credible enforcement mechanism which requires continuous disclosure of comprehensive and quality information. Rock (2001) argues that investors view the signal as credible because of the significant costs associated with exiting public markets after the IPO. These costs include: the costs of share buyback, the difficulty to garner enough shareholder votes, or transactions costs associated with reverse mergers or dissolution agreements. Furthermore, criminal and civil liability increases the costs of dereliction and, thus, enhances the credibility of security disclosures (Chakravorty et al., 2006). Although it is

⁶² Jensen and Meckling (1976) argue that agency costs arise in any situation involving cooperative effort.

relatively inexpensive to enter public markets, the willingness to accept the costs of exit serves as a signal of managerial commitment and can reduce the costs of adverse selection (Spence, 1973). Thus, mandatory disclosure limits the number of companies that enter public markets merely to exploit investors.

The Formation of Standards

Standard setting is not conducted in a vacuum. Because the costs and benefits of standards are unevenly distributed across constituents, standard setters seek and benefit from stakeholder participation (Sunder, 1988). Although stakeholders can provide important insight into implementation costs and potential unintended consequences, standard setting often involves a negotiation between the regulatory agency and the stakeholders involved in the process. This process can result in outcomes that are not socially optimal.

For example, current accounting standards permit managerial discretion in numerous areas of financial statements. This discretion increases the costs for end users of financial statements to validate and compare financial information. Managerial discretion also makes it possible for managers to pursue aggressive accounting practices in order to obtain favorable financial statement presentation (e.g. Engel et al., 1999). Although this flexibility may not be socially optimal, stakeholders have incentive to participate actively in standard setting agendas in order to increase the chances that their interests are reflected in the final product. Stakeholder participation can influence the standard setting process to such an extent that the final standard is rendered ineffectual (Chilton, 2013). This may ultimately compel the regulator to undertake another standard setting project in order to strengthen the existing standard. And the game begins anew.

Dye (2002) formalized this interplay in a repeated game framework in which regulators are compelled to update existing standards to ensure consistency across reporting periods. In his model, financial statement preparers choose an accounting treatment based on their willingness to pay for classifications manipulation. These classifications manipulations lead the de facto standard to change over time. Regulators must then update the existing de jure standards to ensure that the endogenously determined de facto standards are reasonably consistent.

I argue that the SEC's efforts to strengthen the misstatement disclosure requirements represent an instance of standards "creep" described in Dye (2002). The implementation of Rule 33-8400 should have ended the practice of filing stealth restatements. However, parties involved with the preparation of financial statements sought a less stringent version of the regulation. This campaign prompted the SEC to soften the misstatement disclosure requirements so that the practice of filing stealth restatements could persist but were now under the auspices of the SEC. As the number of stealth restatements increased, the SEC was advised to put an end to the practice. To date, issuers continue to file stealth restatements.

Although I am unable to conclude whether management is acting strategically in choosing to file a stealth restatement, analyzing why issuers continue to file them, despite guidance to the contrary, provides insight into corporate behavior. I argue that as the SEC strengthens its regulations regarding misstatement disclosure, managers that elect to file stealth restatements subject themselves to increased risk of SEC enforcement. As a result, issuers should exhibit greater statistical variation among factors found to be associated with the decision to file stealth restatements. In other words, as the SEC increases its

efforts to eliminate stealth restatements, results from the analyses performed in Chapters 1 and 2 in this dissertation should indicate that issuers electing to file stealth restatements differ more significantly along an increasing number of dimensions.

I group the variables analyzed into three broad categories: business factors, corporate governance factors, and restatement specific factors. Within these categories, some variables should be positively associated with the decision to file a stealth restatement and other variables should be negatively associated with the decision to file a stealth restatement. For the purposes of this paper, I am less interested in the directional relationship between these factors and the decision to file a stealth restatement. Instead, I am interested in how that relationship changes in response to changes in the SEC disclosure requirements for restatements.

Hypothesis 1: Business factors are associated with changes in SEC disclosure requirements.

Hypothesis 2: Corporate governance factors are associated with changes in SEC disclosure requirements.

Hypothesis 3: Restatement specific factors are associated with changes in SEC disclosure requirements.

3.3 Data

This analysis uses the same dataset constructed in Chapter 1. The initial sample comprises all issuers that filed a restatement of their annual financial statements⁶³ (Form 10-K) between January, 2000 and December, 2011. Restatements are classified as either

⁶³ Quarterly (Form 10-Q) restatements tend to focus on technical accounting errors and are typically less material (Hennes et al., 2008).

“stealth” or “non-stealth” depending on whether the issuer concomitantly filed a statement of non-reliance. The dataset is augmented with executive compensation data obtained from ExecuComp. Compensation data is also hand-collected from the definitive proxy statement (Form DEF 14-A) to increase sample coverage.

The SEC implemented Rule 33-8400 on August 23, 2004. I split the sample based on the filing date of the restatement to analyze how the passage of Rule 33-8400 affected the decision to file a stealth restatement. As Table 3.1 indicates, 493 restatements were filed prior to the implementation of Rule 33-8400, of which 230 (47%) were stealth restatements. Following the passage of Rule 33-8400, there were 1,971 restatements filed, of which 286 (15%) were stealth restatements. Based on the decrease in the percentage of stealth restatements that were filed, it would seem that Rule 33-8400 was successful in increasing the salience of value relevant disclosures as measured by restatement announcements.

Table 3.1: Number of Restatements by Type and Regulation Status

Regulation Status	Stealth Restatement		Total
	0	1	Restatements
Pre 33-8400	263	230	493
Post 33-8400	1,685	286	1,971
Pre ACIFR	1,346	168	1,514
Post ACIFR	339	118	457
Total Restatements	1,948	516	2,464

To test the effects of the ACIFR’s report on the decision to file a stealth restatement, I subdivide the post-Rule 33-8400 sample period. Although the subcommittee’s report was made public November 2, 2007, the ACIFRs’ final report was not issued until August 1, 2008. As I have no reason to believe that issuers would have relied on the preliminary findings of the subcommittee, I choose to divide the post-

regulation sample period based on the final issuance date of the ACIFR's report. Table 3.1 indicates that 1,514 restatements were disclosed following the implementation of Rule 33-8400 but prior to the issuance of the ACIFR report. Of these restatements, 168 (11%) were stealth restatements. Finally, 457 were disclosed following the issuance of the ACIFR report of which 118 (26%) were stealth restatements.

3.4 Results

I begin with univariate analyses to test Hypothesis 1. Because the underlying data are not typically symmetrically distributed, I present nonparametric Mann-Whitney tests alongside two-sample T-tests.

Univariate Analysis

Table 3.2 presents results from simple T-tests on the differences in means as well as results from the non-parametric Mann-Whitney test.

Table 3.2: Univariate Analyses

Variable	(1) Pre 33-8400 Sample			(2) Post 33-8400 Sample			(3) Pre ACIFR Sample			(4) Post ACIFR Sample		
	Stealth Mean	Non-Stealth Mean	T-Test	Mann-Whitney Test	Stealth Mean	Non-Stealth Mean	T-Test	Mann-Whitney Test	Stealth Mean	Non-Stealth Mean	T-Test	Mann-Whitney Test
Hypothesis 1												
ActualIssuance	0.91	0.92	0.36	-0.36	0.93	0.92	1.95*	-1.95*	0.90	0.94	1.67*	-2.03**
EPGrowthDummy	0.07	0.08	0.78	-0.77	0.03	0.06	2.35**	-1.92*	0.01	0.07	2.79***	-2.79***
ExFinDummy	0.24	0.24	0.21	-0.21	0.12	0.16	2.12**	-1.92*	0.13	0.15	0.77	-0.73
FreeCashFlow	-0.19	-0.09	1.70*	-2.17**	-0.10	-0.10	-0.15	0.33	-0.10	-0.09	0.58	0.48
LnAssets	5.53	6.47	5.01***	-4.68***	6.19	6.11	-0.56	0.36	6.17	6.21	0.23	-0.33
LnAuditFees	5.71	7.21	2.92***	-3.19***	5.69	6.00	0.85	-0.9	6.29	6.38	0.18	-0.20
Loss	0.53	0.44	-1.98**	1.97**	0.38	0.42	1.03	-1.02	0.38	0.39	0.32	-0.32
MarketPerShare	11.72	17.01	3.95***	-4.07***	17.05	16.29	-0.68	1.04	17.80	17.43	-0.24	0.29
MarketToBook	2.50	1.78	-0.73	-1.35	-1.44	2.80	1.31	-2.4**	-3.38	3.33	1.35	-1.89*
PERatio	27.07	23.41	-0.26	-2.9***	23.55	29.21	1.17	0.49	21.51	30.28	1.35	-0.68
Hypothesis 2												
AuditorInvolved	0.57	0.30	-6.05***	5.84***	0.71	0.92	10.56***	-10.27***	0.76	0.93	4.99***	-7.13***
Big4	0.71	0.84	3.43***	-3.4***	0.56	0.62	1.91*	-1.91*	0.62	0.67	1.22	-1.22
CEOPercent	0.45	0.51	1.60	-1.65*	0.42	0.52	3.22***	-3.47***	0.44	0.54	2.73***	-2.75***
CFOPercent	0.46	0.49	0.80	-0.77	0.36	0.47	3.50***	-3.74***	0.39	0.50	2.86***	-2.93***
Litigation	0.23	0.36	3.33***	-3.27***	0.25	0.27	0.61	-0.6	0.24	0.28	1.06	-1.02
OfficersPercent	0.43	0.43	-0.14	0.12	0.38	0.43	2.32**	-2.27**	8.07	160.61	0.33	-2.00**
OwnershipDummy	0.37	0.51	2.66***	-2.63***	0.61	0.56	-1.33	1.31	0.63	0.60	-0.60	0.60
PercentOwnership	0.44	0.64	3.75***	-3.53***	0.69	0.65	-0.99	1.48	0.69	0.70	0.08	0.43
SEC	0.05	0.12	2.87***	-2.78***	0.02	0.10	7.63***	-4.5***	0.02	0.10	5.01***	-3.09***
Hypothesis 3												
CoreAccount	0.37	0.51	3.25***	-3.21***	0.23	0.29	2.05**	-2.05**	0.21	0.28	1.96*	-1.82*
DeltaInventory	-0.01	0.00	1.15	-2.52**	0.00	0.00	-0.66	-1.86*	0.01	0.00	-1.07	-1.29
Fraud	0.05	0.05	-0.14	0.14	0.00	0.03	4.59***	-2.48**	0.01	0.03	1.72*	-1.72*
ICFR	0.93	0.85	-2.85***	2.77***	0.42	0.48	1.89*	-1.88*	0.43	0.50	1.74*	-1.73*
ScaledImpact	0.00	0.00	0.04	-2.37**	0.00	0.01	0.49	-0.75	0.00	0.01	0.98	-0.56
Time	1.96	2.37	3.20***	-2.84***	1.95	2.54	4.09***	-2.83***	1.94	2.70	5.48***	-3.59***
WCAccruals	3.19	3.24	3.13***	-2.4**	3.06	3.51	-0.54	1.30	0.01	-0.01	-1.15	1.26

***, **, * indicate p-values significant beyond the 1%, 5% and 10% levels, respectively.

Hypothesis 1 tests whether business factors associated with the decision to file a stealth restatement change in response to SEC disclosure requirements. The results in Columns 3 and 4 indicate that prior to implementing Rule 33-8400, issuers electing to file a stealth restatement are significantly smaller (*LnAssets*), generate less free cash flow (*FreeCashFlow*) and have significantly lower investor valuations (*MarketPerShare* and *MarketToBook*). However, the estimated statistical significance of many of these factors declines in the period after the implementation of Rule 33-8400. Most notably, results presented in Columns 7 and 8 of Table 3.2 do not provide evidence that issuers electing to file stealth restatements following the implementation of Rule 33-8400 are significantly smaller or have lower investor valuations.

Panels C and D of Table 3.2 subdivide the period following the implementation of Rule 33-8400 into periods before and after the ACIFR committee issued its recommendations to the SEC. The results in Columns 11 and 12 do not provide evidence that issuers electing to file stealth restatements during the period August 2004 to August 2008 differ with respect to many of the business factors that were previously found to be associated with the decision to file a stealth restatement. One way to interpret the lack of statistical significance during this period is that issuers began to take advantage of the lax SEC enforcement of Rule 33-8400.

Columns 15 and 16 of Table 3.2 analyze restatements disclosed during the period August 2008 to December 2011. The results indicate that many of the hypothesized directional relationships have reversed during the most recent sample period. In particular, I find that issuers electing to file stealth restatements have increased in size

and have significantly larger investor valuations. These results may have deleterious implications for financial reporting quality.

Hypotheses 2 and 3 test whether certain corporate governance mechanisms and restatement specific factors change in response to the SEC reporting environment, respectively. The results in Table 3.2 are consistent with Hypotheses 2 and 3. Comparing the statistical significance of the estimated test statistics across the various panels of Table 3.2 indicates that factors associated with decision to file a stealth restatement change in response to changes in the SEC reporting environment. Furthermore, I find additional evidence that some of the hypothesized direction relationships seem to reverse in the most recent sample period.

In summary, univariate analyses indicate that factors associated with the decision to file a stealth restatement change in response to changes in SEC disclosure requirements. The results indicate that the passage of Rule 33-8400 may have influenced which factors were associated with the decision to file a stealth restatement. However, a more granular view of the sample period following the passage of Rule 33-8400 suggests that lax SEC enforcement may have harmed financial reporting quality. Perhaps the most interesting comparisons relate to the differences in issuer size and materiality of the restatements. Prior to the passage of Rule 33-8400, issuers filing stealth restatements were significantly smaller (*LnAssets*) relative to issuers filing more prominent restatement disclosures. Following the passage and subsequent relaxation of Rule 33-8400, there is no longer a statistically significant difference in the size of issuers filing stealth restatements. In fact, during the most recent portion of the sample, results indicate

that issuers electing to file stealth restatements are significantly larger than issuers using more prominent restatement disclosure sources.

Similarly, while the number of periods covered by stealth restatements (*Time*) is consistently smaller, this result no longer holds in the most recent portion of the sample. Finally, there is no longer a significant difference between the materiality of the restatements (*ScaledImpact*) in the post-regulation period. Collectively, these results suggest that the SEC's relaxation of Rule 33-8400 may have had a negative impact on financial reporting quality as stealth restatements seem to have provided an outlet for comparatively larger issuers to disclose material restatements without a significant market reaction.

Multivariate Analysis

I re-estimate the regression model developed in Chapter 1, but I divide the sample based on the changes in the SEC disclosure requirements. The results of the multivariate analysis are presented in Table 3.3.

Table 3.3: Multivariate Analyses

Variable	(A) Pre 33-8400 Sample		(B) Post 33-8400 Sample		(C) Pre ACIFR Sample		(D) Post ACIFR Sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	0.4185	-2.4375**	0.2493	0.0497	-0.1682	0.0104	-0.0932	-0.965
AuditorInvolved	1.3462***	2.1319***	-1.3376***	-1.1182***	-1.1953***	-1.0992***	-1.0542**	-0.515
CEOPercent	-0.7963	-0.7326	-1.1782***	-1.5622***	-1.2426***	-1.6479***	-0.2926	-0.7266
CoreAccount	-0.8027**	-1.4114***	-0.4505	-0.6891**	-0.3266	-0.5544	-0.6594	-1.0551**
Fraud	-1.9599*	-1.9364	-13.7269	-13.6825	-0.5541	-0.5936	-1.3739*	-1.2255
ICFR	0.7246	1.9691**	-0.5198*	-0.6038*	-0.3671	-0.4254	-0.0187	-0.1541
Leverage	-0.7215	-1.1273	-0.6113	-1.3185*	-0.4127	-1.8905**	-1.1491	-1.2556
LnAssets	-0.1743	0.0464	0.0426	0.1039	0.089	0.136	-0.0491	0.1326
LnAuditFees	0.0429	0.0776	0.0135	0.018	-0.00353	0.0087	0.0652	0.0398
PercentOwnership	-0.4682	-1.2342	0.0177	-0.0651	-0.1085	-0.1592	0.621	0.3152
RSSTAccruals	0.29	1.8707	1.3582**	1.5402**	1.1445**	1.0331	1.4798	2.3639*
ScaledImpact	-43.9934	-33.4893	-10.0571	9.2709	8.9382	-19.4773	-1.0146	17.6521
SEC	-0.7457	-1.1128	-1.8728*	-13.7744	-1.0374**	-2.1***	-0.6414	-0.5458
Time	-0.00071	0.0389	-0.1637**	-0.1623**	-0.1579**	-0.1704**	-0.0237	-0.0149
Contains Industry and Year Effects	No	Yes	No	Yes	No	Yes	No	Yes
Pseudo R ²	22.6%	38.8%	19.8%	22.8%	15.2%	19.8%	22.5%	22.6%

***, **, * Indicate p-values significant beyond the 1%, 5% and 10% levels, respectively.

Panels A and B of Table 3.3 present results for the pre and post-Rule 33-8400 sample periods, respectively. Based on the results in Panel B, it is not clear what motivated issuers to file stealth restatements in the pre-regulation period. I do not find evidence that suggests that stealth restatements were filed by relatively small issuers (*LnAssets*), or were less material (*ScaledImpact*). Although stealth restatements filed in the pre-regulation period less frequently involve misstatements of a core account (*CoreAccount*), issuers are significantly more likely to file a stealth restatement under the auspices of the external auditor (*AuditorInvolved*). Even though there were no regulations that prohibited filing them, stealth restatements constituted a small minority of the restatements filed prior to the passage of Rule 33-8400. Collectively, these results do not identify any specific factor that explains why issuers were filing stealth restatements.

Initially, the analysis of the period following the passage of Rule 33-8400 indicated that maximum likelihood estimates did not exist for several of the explanatory variables. The failure of the likelihood maximization algorithm to converge is attributed to a pattern in the data known as quasi-complete separation (Allison, 2008). Despite the fact that the log-likelihood function is globally concave, there are instances when the function does not have a maximum, in which case the maximum likelihood estimates are infinite (Amemiya, 1985). Although quasi-complete separation most commonly involves a dichotomous explanatory variable, it can occur in any situation when there are extreme splits on the frequency distribution of either the dependent or independent variables (Allison, 2008).

Allison (2008) outlines several solutions for dealing with quasi-complete separation. While each has strengths and weaknesses associated with it, the Firth (1993)

method of penalized maximum likelihood (PML) has a number of desirable properties. Heinze and Schemper (2002) show that PML always produces finite parameter estimates. The authors find that PML estimates have less bias relative to exact logistic regression. PML is also less computationally intensive than exact logistic regression making it feasible for large datasets.

Panels B through D of Table 3.3 present results from the PML models. Heinze and Schemper (2002) argue that penalized likelihood ratio tests are preferable to the traditional Wald Tests. Therefore, the reported significance levels are based on likelihood functions obtained from the PML models. Panel B presents results for the entire post-Rule 33-8400 sample period while Panels C and D analyze separately the pre and post-ACIFR report periods, respectively. The results in Panel B are qualitatively similar to the corresponding results from the logistic regression models presented in Panel A. The notable exceptions are that the PML models produce valid coefficient estimates for the *Fraud* and *ScaledImpact* variables. The estimated coefficients on *AuditorInvolved* and *SEC* are negative and significant. These results continue to emphasize the role that external governance mechanisms play in benefitting stakeholders and improving management's financial disclosures. Although I do not find evidence that stealth restatements are significantly less material (*ScaledImpact*), I do find that they less frequently involve important sections of the financial statements (*CoreAccount*) and cover fewer reporting periods (*Time*).

Panel C of Table 3.3 analyzes the period between Rule 33-8400 and the issuance of the ACIFR report. Both the magnitudes and statistical significance of the estimated coefficients are similar to the entire post-Rule 33-8400 sample period results presented in

Panel A. The most noteworthy results from analyzing the effects of the ACIFR report on the decision to file a stealth restatement are presented in Panel C. Although the ACIFR report recommends that the SEC revise its instructions to eliminate stealth restatements, issuers continue to file them. Based on the results in Panel D, a number of the factors that were previously found to be associated with the decision to file a stealth restatement are no longer significant in the post-AICFR report sample period. Although these results may not be intellectually appealing, they are nevertheless interesting as they highlight the interplay between regulators and financial statement preparers.

I argue that the analysis of stealth restatements across time and multiple regulatory regimes presents evidence of the standards creep highlighted in Dye (2002). The observed changes in which factors are associated with the decision to file a stealth restatement, or the levels of significance across various time periods, highlights how the willingness of financial statement preparers to file a stealth restatement changes in response to increased/decreased financial regulations. In the most recent sample period analyzed, I am not able to identify compellingly what factors are motivating issuers to file stealth restatements.

3.5 Conclusion

The SEC endeavors to improve financial reporting quality by requiring issuers to disclose value relevant information on a timely basis. In the recent past, issuers were required to disclose a relatively small number of significant corporate events. The lack of disclosure made it difficult for investors to incorporate the information into security prices. One particular example is the disclosure of financial misstatements.

Although competition can compel managers to disclose pertinent information, the negative market reaction to misstatement disclosures provides management with incentive to suppress news of the misstatement. To address this market failure, the SEC implemented Rule 33-8400 which requires issuers to disclose misstatements in Form 8-K within four business days of determining that previously issued financial statements should no longer be relied upon. Ostensibly, Rule 33-8400 should have banned the practice of filing stealth restatements. However, the SEC provided subsequent guidance which was interpreted to mean that the practice could continue. As the number of issuers filing stealth restatements increased, the SEC was advised to end the practice once and for all. Still, issuers continue to file stealth restatements.

I analyze the decision to file a stealth restatement over several iterations of the rules regarding restatement filings. I consider a number of factors associated with financial restatements identified in previous research. My results indicate that the factors associated with the decision to file a stealth restatement change across regulatory regimes. I find that in periods of de minimis financial regulation, a variety of factors provided structure to the financial reporting environment to ensure a sufficient level of financial reporting quality. Prior to the implementation of Rule 33-8400, issuers filing stealth restatements tended to be smaller, less profitable and had stronger corporate governance. Some of my results also indicate that stealth restatements were filed for less material misstatements. Collectively, these results suggest that stealth restatements should not have garnered much attention and that the market reacted accordingly.

However, as the SEC updated its regulations for restatement filings, the calculus of the decision to file a stealth restatement changed. My results indicate that factors

previously found to be associated with the decision to file a stealth restatement are no longer significant in the most recent regulatory regime. Perhaps the most concerning of these findings is that stealth restatements no longer seem to be associated with issuer size or materiality in the most recent portion of the analyzed sample. The observed changes in the significance of factors associated with stealth restatements may provide evidence of standards “creep.” Although the SEC’s updated regulations on restatement filings are more stringent, a certain subset of issuers continues to file stealth restatements undeterred.

There are several important caveats. First, although I analyzed a number of factors that have previously been found to be associated with financial restatements, most of them do not appear to be associated with stealth restatements in the current regulatory environment. Future research should expand the list of factors analyzed to understand what motivates issuers to file stealth restatements. Second, SEC regulations permit filing stealth restatements under a specific set of circumstances. Despite numerous attempts, I have not been able to identify the set of circumstances under which it is permissible for issuers to file stealth restatements. Future research should identify these circumstances and develop an understanding of the incentives that issuers have to structure the specific facts and circumstances of the misstatement in order to permit them to file a stealth restatement. Third, although I divide the sample based on specific efforts to strengthen the disclosure requirements for financial misstatements, I am not always able to identify a precise date on which some of the requirements took effect. This forces me to assume that the dates of various reports or news articles represent the effective date for certain disclosure requirements. Although I do not believe that changing specific dates will have

a significant on impact the results from my analysis, identifying the actual date on which rules or guidance became effective would eliminate this uncertainty.

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