THE FLORIDA STATE UNIVERSITY

COLLEGE OF BUSINESS

ACCRUAL QUALITY, INVESTOR SOPHISTICATION AND LITIGATION

By

PING KE

A Dissertation submitted to the
Department of Accounting
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

Degree Awarded:
Summer Semester, 2013

Ping Ke defended this dissertation on June 25, 2013.

The members of the supervisory committee were:

Bruce Billings

Professor Directing Dissertation

Thomas Zuehlke

University Representative

Richard Morton

Committee Member

Al Bathke

Committee Member

The Graduate School has verified and approved the above-named committee members, and certifies that the dissertation has been approved in accordance with university requirements.

ACKNOWLEDGMENTS

I am very grateful for the help and guidance provided by my dissertation committee chair, Dr. Bruce Billings, and would also like to express my thanks to my committee members, Dr. Richard Morton, Dr. Al Bathke and Dr. Thomas Zuehlke for their helpful comments. Finally, I would like to express my thanks to the Accounting Department at FSU for providing me with the academic training and financial support that finally made completion of the dissertation possible.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

I use two accrual measures (abnormal total accruals and abnormal total current accruals) to proxy for accrual quality and examine the relationship between accrual quality and market reaction at the revelation date (the date the bad news about firms' true financial performance was first revealed to the public), the announcement date (the date the filing of the lawsuits was announced to the public) and the subsequent five periods following these dates. I also examine how institutional investors influence the association between accrual quality and market reaction during these periods. Empirical results using abnormal total accruals as proxy for accrual quality suggest that firms with poorer accrual quality are associated with more negative market reaction at the litigation announcement date; results do not suggest a relation between accrual quality and the post-litigation drift. Results using abnormal current accruals as proxy for accrual quality fail to indicate any relationship between accrual quality and market reaction at the revelation dates, announcement dates and the following periods. Results do not suggest that institutional investors play a role in the association between accrual quality and market reaction at the revelation date, announcement dates, and the periods following these dates.

CHAPTER 1

INTRODUCTION

The primary purpose of this paper is to examine whether investors price the implications of accrual quality for lawsuit outcomes at the disclosure of the filing of a lawsuit under Rule 10b-5 of the Securities and Exchange Act of 1934. I also examine whether investors fail to fully appreciate the implications of accrual quality for lawsuit outcomes, leading to post-litigation announcement drift. Lastly, I investigate whether more sophisticated investors anticipate the implications of accrual quality for lawsuit outcomes prior to the announcement date, resulting in less of an announcement date effect and less post-litigation announcement drift for those firms. As a result, this study ties together three strands of accounting literature: accrual quality, litigation and investor sophistication.

In this study, I examine two forms of accrual quality, income-increasing abnormal accruals (or signed abnormal accruals) suggesting the degree of earnings management and the absolute magnitude of abnormal accruals (unsigned abnormal accruals) suggesting the extent of information uncertainty. Litigation research in accounting suggests that litigation risk and settlement outcomes are both positively related to abnormal accruals. Heninger (2001) documents a positive association between the likelihood that auditors will be sued and abnormal accruals. More generally, DuCharme, Malatesta and Sefcik (2004) find that the likelihood of litigation is significantly positively related to abnormal accruals. Grimm (2009) and Chalmers, Naiker and Navissi (2012) report that firms sued under Rule 10b-5 securities fraud class action lawsuits overstate earnings through accruals relative to a return-matched control sample.

Further, Grimm (2009) and DuCharme et al. (2004) link higher abnormal accruals to higher settlement costs, suggesting that abnormal accruals may be an indicator of lawsuit outcomes.

Research suggests that investors price the implications of both shareholder lawsuits and accrual quality. Regarding litigation, Griffin et al. (2000) find a negative price reaction to the litigation announcement and negative post-announcement drift that persists for about three weeks. Ferris and Pritchard (2001) report a significant negative market reaction around the revelation and filing of the lawsuit. Regarding signed abnormal accruals as an indication of earnings management, Rangan (1998) and Teoh, Welch and Wong (1998a) find that signed abnormal accruals are negatively related to post seasoned equity offering (SEO) stock returns, suggesting upward income management via abnormal accruals prior to stock issuance. Teoh et al. (1998b) and DuCharme et al. (2001) document a similar finding for IPO firms. Regarding the absolute magnitude of abnormal accruals, Francis, LaFond, Olsson, and Schipper (2005) report higher costs of debt and equity for firms with greater information uncertainty reflected in abnormal accruals indicating that investors price accrual quality.

Based on these prior studies that link abnormal accruals to higher litigation risk and costlier litigation outcomes along with evidence that investors react to both litigation and abnormal accruals, I investigate whether investors condition their response to the announcement of a lawsuit on these forms of accrual quality for lawsuit firms. If investors incorporate accrual quality information into their firm valuation process at the announcement, there should be a more negative price reaction for the accounting-based lawsuit firms with larger abnormal accruals, indicative of a higher probability of being involved in earnings management.

Research in litigation suggests a post-litigation announcement drift (Griffin et al. 2000; Bauer and Braun 2010). I investigate whether this price drift may be indicative of an

underreaction to information in past abnormal accruals about the quality of earnings. Price drift following the litigation announcement may be the result of investors underreacting to the implications of prior signed abnormal accruals for future litigation costs. Investors may also underreact to information in abnormal accruals about the inherent uncertainty regarding the implications of past managed earnings for future performance, consistent with the more general momentum phenomenon that price continuation following public information increases with information uncertainty, i.e. ambiguity of the implications of new information for a firm's value (Zhang 2006). Francis et al. (2007) suggest that information uncertainty manifested through lower accrual quality contributes to post-earnings announcement drift. Poor accrual quality leading to higher information uncertainty may impede investors from fully and quickly appreciating the implications of a lawsuit for firm value. Thus, I investigate whether there is greater drift following the announcement of a lawsuit for firms with larger abnormal accruals and absolute abnormal accruals.

In addition, I examine whether the association between the signed abnormal accruals and market reaction around the litigation announcement varies with investor sophistication. Richardson, Sloan, Soliman and Tuna (2005) document that there are significant costs associated with incorporating less reliable information (e.g. accruals) in financial statements, resulting in significant security mispricing. Prior research also suggests that more sophisticated investors have more resources and more expertise than individual investors, and they have more incentives to develop private information preceding public news releases (e.g. earnings release). As a result, sophisticated investors may more quickly incorporate the implications of accrual quality for lawsuit outcomes. For example, research shows that sophisticated investors are associated with a smaller market reaction to earnings announcements (Gazzar 1998) and less accrual

mispricing (Collins et al. 2003). Sophisticated investors have also been shown to identify low quality earnings more quickly and thus react earlier than individual investors (Balsam et al. 2000). If, as prior research suggests, sophisticated investors distinguish accrual quality across firms more quickly than unsophisticated investors and are able to better anticipate the litigation and price it sooner than unsophisticated investors, then I expect a weaker association between accrual quality in the form of the signed abnormal accruals and the market reaction on the announcement of a lawsuit for firms with a higher proportion of sophisticated investors.

On the other hand, the litigation announcement introduces new information to the market. As a result, there may be a substantial revision in expectations about litigation costs at the announcement date. Sophisticated investors are expected to more quickly interpret the implications of past accrual quality as it relates to revisions in expected litigation costs. Thus, the relationship between accrual quality and market reaction to the lawsuit announcement may be stronger for institutional investors. Whether stock prices for firms with more sophisticated investors impound the implications of accrual quality for litigation outcomes prior to the litigation announcement or at the litigation announcement is an empirical question which I investigate. Under either scenario, however, by the announcement date stock prices should more completely reflect the implications of accrual quality for litigation outcomes for firms with a higher percentage of sophisticated investors. As a result, I expect any association between post-litigation announcement drift and accrual quality to be substantially mitigated for firms with a higher proportion of sophisticated investors.

I also examine the information content of accrual quality around the revelation of bad news preceding the lawsuit announcement. The revelation date is the date the bad news about the company's true financial information is first revealed to the public, causing a sharp decline in

stock price. While bad news does not guarantee that a lawsuit for damages will be filed, the market will likely revise their assessments of the likelihood of a lawsuit and of potential costs should a lawsuit occur. Given prior research relating accrual quality to both the likelihood of a lawsuit and litigation outcomes, the market reaction at the revelation date may be conditional on the accrual quality of the firm analogous to and perhaps preemptive of that at the litigation announcement. For example, Ferris and Pritchard (2001) find a larger negative reaction to the revelation of bad news than to the lawsuit announcement. I investigate whether the market anticipates, to some degree, the subsequent litigation announcement and responds more negatively at the revelation date for firms with lower accrual quality. Consistent with expectations at the litigation announcement, I expect that the relation between accrual quality and the market reaction at the bad news announcement is conditional on the percentage of sophisticated investors associated with the firm.

I use two proxies to identify abnormal accruals. The first is based on the modified Jones model (Dechow et al 1995). The second is based on Dechow and Dichev's model (2002) relating total current accruals to future, current, and lagged cash flows as modified in Francis et al. (2005) to include the standard Jones model variables. The signed residuals from these models represent income-increasing earnings management. The absolute value from these models captures information uncertainty. Control variables are identified based on prior research examining the market reaction to shareholder lawsuits (Ferris and Pritchard 2011, Griffin et al 2004).

This study contributes to accounting research by investigating whether differences in accrual quality affect the market reaction to the announcement of a lawsuit. Further, this study extends market efficiency research by examining whether the drift associated with litigation

announcements is in part the result of investors failing to fully appreciate the implications of accrual quality for lawsuit outcomes. This paper extends current research regarding the impact of investor sophistication on market efficiency by assessing whether more sophisticated investors better distinguish accrual quality and its implications for lawsuit outcomes prior to the announcement of a lawsuit resulting in less of an association between accrual quality and both the market response to the lawsuit and price drift following the announcement.

The paper is organized as follows: In section II, I develop the hypotheses after a review of the literature. In section III, I discuss the research design, which includes the sample selection, variables and descriptive statistics. Section IV presents the main results, and Section V discuss some robustness checks, and the last section concludes.

CHAPTER 2

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Market Reaction to Litigation

Shareholders in the US are entitled to file a class-action lawsuit against a firm if they believe their agents have violated the duty of loyalty or duty of care (Shleifer and Vishny 1997). Under the Section 10b-5 of the Securities and Exchange Act of 1934, investors may sue a firm to recover damages if they are harmed (usually manifested in a drastic stock price decline) by the firm's false or misleading information or the firm's failure to disclose materially relevant information to them. A company's false or misleading information would inflate the stock price and the subsequent disclosure of the firm's true situation would cause the stock price to decline sharply, resulting in investors' losses and ultimately a class action lawsuit against the company. From 1996 to 2010, more than 2,000 issuers were named as defendants in lawsuits. The potential legal liability that the firm faces can be substantial. The average class action settlement between 1991 and 1999 was about $8 million (Griffin et al. 2000). Damages can be critical to a firm's financial health and to its long-term survival.

The litigation process usually involves several important dates. The beginning and ending dates of the class action period cover the period over which damages are claimed to have occurred. The revelation date is when the announcement of bad news regarding the firms' financial condition is first revealed to the public. This is followed by the lawsuit filing (i.e., announcement) date and the court's decision date. These are described in the time line provided in Figure 1. Prior research examines the market reaction on several of these dates and shows that investors generally react negatively to the bad news and subsequent lawsuit announcement.

Using the NASDAQ composite market return as a benchmark to measure the daily excess return, Griffin et al. (2000) examine the stock price reaction at the time of the litigation announcement and a subsequent extended period. They find a significant negative price reaction at the litigation announcement and a negative post-announcement drift that persists for about three weeks. They also document that the price responses are more pronounced in smaller firms and firms with less analyst coverage. In a companion paper, Griffin et al (2004) collect approximately 3,000 federal class action securities fraud lawsuits from 1990 to 2002 and show that investors respond at the beginning of class period, the revelation date and the litigation announcement date, indicating that the market treats these three events as closely related. For a sample of 89 lawsuit firms, Ferris and Pritchard (2001) study the revelation, filing, and decision dates of the lawsuit and find a large negative reaction to the first event, a smaller but significant reaction to the second event, and an insignificant reaction to the resolution of the motion to dismiss. They also find that certain firm-level characteristics, namely a firm's beta, skewness of returns, free cash flow, debt ratio, market-to-book ratio, equity holdings by institutional investors, and percentage of independent directors, explain stock return variability around these events.

More recent studies include Bauer and Braun (2010) and Gande and Lewis (2009). Bauer and Braun (2010) examine the long-term performance of the class-action lawsuit firms. They find that the lawsuit firms are generally negatively impacted both in the short term and over a longer horizon, with a recovery of stock price highly dependent on whether the litigation is related to class-action, stock price manipulation, accounting fraud, errors in financial statements, illegal business practices, insider trading, false or misleading statements, SEOs, initial public

offerings (IPOs), or acquisitions. Gande and Lewis (2009) find negative stock price reactions to securities class action lawsuits for a sample of 377 lawsuit firms from 1996- 2003.

To summarize, researchers have examined both the long-term and short-term performance effects of litigation on corporations. Examination of the market reactions covers different periods/dates of the event and firm-level characteristics that may explain the variability of the market reaction. However, none of these previous studies examines the role that accrual quality plays in explaining the variability of the market reaction to this corporate event. This study fills the void by examining whether investors price accrual quality of the firms sued under the 10b-5 rule of the Security Exchange Act at the announcement of litigation.

2.2. Market Reaction to Accrual Quality

Prior research indicates that poor quality earnings and financial information send negative signals to the market, and investors discount the information they obtain about the firm and adjust downward their expectation about the firm's future performance to the extent they are aware that the information provided is of poor quality. By examining the ERCs for two-day event windows ending on the quarterly earnings announcement date, Defond and Park (2001) find that good news firms with income-increasing abnormal working capital accruals are associated with lower ERCs than good news firms with income-decreasing abnormal working capital accruals, while bad news firms with income-increasing abnormal working capital accruals have higher ERCs than bad news firms with income-decreasing abnormal working capital accruals, suggesting that investors anticipate the reversing implications of abnormal accruals. Although their study also suggests that investors do not fully impound the implications of abnormal accruals at the earnings announcement date.

Using a sample of 230 SEOs in 1987-1990, Rangon (1998) finds that signed abnormal accruals, as a proxy for accrual quality, are negatively related to stock returns in the year following a seasoned equity offering (SEO). Similarly, Teoh, Welch, and Wong (1998a) report that discretionary accruals in the year before SEOs are negatively related to abnormal stock returns over the four-year post-offering period. Teoh et al. (1998b) and DuCharme, Malatesta and Sefcik (2001) document similar findings for IPO firms. These findings suggest that the level of abnormal accruals during or before these corporate events significantly impact investors' perceptions and expectations of future performance.

Francis, LaFond, Olsson, and Schipper (2005) examine the relation between accrual quality as represented by unsigned abnormal accruals and cost of capital and report that lower accrual quality is associated with higher earnings-price ratios, higher betas, and lower debt ratings. Their results indicate that investors price accrual quality, and that lower accrual quality is associated with higher cost of equity and debt. They further distinguish between innate accrual quality and discretionary accrual quality and find that the innate component of accrual quality has a significantly larger pricing effect than the discretionary component of accrual quality.

2.3. Accrual Quality and the Litigation Announcement

When plaintiff's attorneys decide to file a lawsuit against a firm, this signals to the market that a potential financial liability is likely to occur in the foreseeable future. The potential settlement amounts are assessed by the plaintiffs' attorneys through an evaluation of the magnitude of damages due to the drastic decline of the stock prices following the corrective disclosure. Research in accrual quality and litigation suggests that poorer accrual quality resulting from earnings management is associated with higher litigation cost.

Using a sample of 781 firms sued in class action securities litigation from 1988 to 2000, Lu (2003) finds that earnings management in the form of income-increasing accruals is associated with allegations of manipulation over the same period in subsequent private securities litigation and is also an important indicator of the magnitude of the settlement at the conclusion of the cases. Grimm (2009) also finds higher settlement amounts for firms with larger abnormal accruals even after controlling for return performance and hard evidence events such as restatements and SEC investigations. Similarly, DuCharme et al. (2004) show that the abnormal accruals of lawsuit firms are positively related to the settlement amounts for a group of SEO and IPO firms. These results indicate that accrual quality, an indication of the degree of earnings management, is an important factor affecting firm value and thus value relevant in the litigation context. Chalmers, Naiker and Navissi (2011) examine the accrual (earnings) quality of firms sued under Rule 10b-5 securities fraud class action lawsuits relative to accrual (earnings) quality of a matched control sample of firms prior to and following the Private Securities Litigation Reform Act (PSLRA). Results indicate that sued firms overstate earnings resulting in significantly lower earnings (accrual) quality in both the Pre- and Post-PSLRA periods, consistent with Grimm's conclusion that accounting-based securities class action lawsuits are generally merit-based.

In summary, investors react negatively to shareholder lawsuits, lawsuits are associated with firms that have lower accrual quality (i.e., larger abnormal accruals), and lower accrual quality has been linked to costlier lawsuit outcomes. Together, these findings suggest that investors should condition their reaction to lawsuits based on their perception of accrual quality as reflected in abnormal accruals at the filing of the lawsuit. If investors incorporate this accrual quality information into their firm valuation process at the announcement of the filing, I expect

that there should be a more negative price reaction for the accounting-based lawsuit firms with lower accrual quality (i.e. larger abnormal accruals) at the lawsuit announcement date. Therefore, my first hypothesis is stated as follows (alternative form):

> *H1: For firms subject to a lawsuit, those with lower accrual quality (i.e., more income increasing abnormal accruals) will experience a more negative stock price reaction at the announcement of the lawsuit.*

Alternatively, I may not find an association between past accrual quality and the stock price reaction at the announcement of the lawsuits. In part, H1 assumes a relation between past accrual quality and the extent to which investors revise expectations based on the announcement of a lawsuit. Since the lawsuit under Rule 10b-5 is usually related to misrepresentation of firms' financial information or failure to disclose materially important information, investors may revise their assessment of accrual quality. In other words, investors may not price past accrual quality at the announcement of the litigation if it no longer is related to current accrual quality. However, findings in Grimm (2009) and DuCharme et al. (2004) of a relation between past accrual quality and lawsuit outcomes provide an economic foundation for expecting that investors will condition their response at the announcement date on past accrual quality.

Also working against H1 is the potential for investors to place too much weight on earnings quality in assessing the risk of a lawsuit prior to the lawsuit announcement. This could lead to greater surprise factor for firms with higher earnings quality at the announcement of the lawsuit, suggesting a more negative market reaction for firms with higher rather than lower earnings quality. Whether this surprise factor exists and is sufficiently strong to counteract the

market reaction to the implications of earnings quality for lawsuit outcomes at the announcement date is an empirical question. A third factor working against H1 is evidence of downward price drift following the litigation announcement. Drift suggests that investors underreact, which may also reduce the likelihood of observing a relation between accrual quality and the market reaction at the announcement date. Whether this underreaction is related to accrual quality and whether underreaction to accrual quality decreases the ability to observe an announcement day effect is an empirical question.

2.4. Post-litigation Drift

Research in litigation suggests that there is post-litigation announcement drift, i.e. significant negative stock returns in the weeks or months following the litigation announcement (Griffin et al 2000; Bauer and Braun 2010). I investigate whether post-litigation announcement drift is related to a failure by investors to efficiently impound in stock price information found in both signed and absolute abnormal accruals about accrual quality. Prior studies have linked abnormal accruals to future stock returns (Sloan 1996; Xie 2001). Regarding signed abnormal accruals, prior research suggests a relation between larger income-increasing abnormal accruals and higher litigation costs. Therefore, one explanation for the post-litigation drift may be that investors underreact to the information in signed abnormal accruals at the litigation announcement date.

Regarding unsigned abnormal accruals, previous research has shown that investors react to news more slowly in the presence of greater uncertainty. Using a number of proxies for information uncertainty, Zhang (2006) reports that greater information uncertainty leads to relatively lower (higher) future returns following bad (good) news compared to stock returns of

firms with less information uncertainty. Using measures based on unsigned abnormal accruals to proxy for information uncertainty, Francis et al. (2007) empirically test the effect of the uncertainty parameter on the predictability of prices and find that post-earnings announcement drift is more pronounced for firms with high information uncertainty (i.e. low accrual quality). These results suggest that the market reaction at the announcement date is incomplete in the presence of high information uncertainty as captured in the absolute magnitude of abnormal accruals.[1] Hence, the second hypothesis is as follows (in alternative form):

H2: Lawsuit firms with lower accrual quality experience more downward drift in stock prices following the announcement of the litigation.

2.5. Investor Sophistication

2.5.1 Investor sophistication and market reaction

Prior research indicates that sophisticated investors have more resources and expertise for gathering and processing information than individual investors, and compared with individual investors, are capable of mitigating security mispricing. Using a sample of 1,262 firm-quarters covering 1987 to 1990, Gazzar (1998) analyzes the market reaction to earnings announcements and finds smaller market reactions for firms with higher institutional holdings. This result supports the view that institutional investors, having more incentives to develop private information and more advantages in gathering and processing financial information, anticipate some content of the earnings announcement earlier than other individual investors, reducing the market reaction to earnings releases.

[1] At the litigation announcement, greater information uncertainty may also be reflected in the magnitude of signed abnormal accruals. Litigation under Rule 10b-5 suggests that prior income-increasing earnings management was not detected or adjusted for by investors. The prospect of greater earnings management in these larger abnormal accruals introduces additional uncertainty for investors regarding the level of earnings management and the precision with which they can use past earnings to predict future earnings.

For a sample of firms in which there is ex post evidence of earnings management, Balsam et al. (2000) document that sophisticated investors react to earnings management prior to the 10Q filing date, while unsophisticated investors only respond around the 10Q filing date. Sophisticated investors appear to recognize and react to lower accrual quality more quickly than individual investors. By forming an accrual-based hedge portfolio that invests long in firms with the largest income-decreasing accruals and short in firms with the largest income-increasing accruals, Collins et al. (2003) find that one-year ahead hedge returns are significantly smaller for firms with high institutional ownership than for firms with low institutional ownership, suggesting that institutional investors reduce accruals mispricing.

On the one hand, sophisticated investors may be able to reduce accruals mispricing by being better able to identify accrual quality of the lawsuit firms earlier than individual investors and price its implications prior to the announcement of a lawsuit. If so, they may be more likely to incorporate the implications of accrual quality information for the outcomes of the lawsuit *before* the announcement of the lawsuit, while individual investors would be more likely to react at the announcement of the lawsuit based on their assessment of accrual quality. This leads to the following hypothesis:

H3a: The association between accrual quality and the market reaction at the announcement of a lawsuit is weaker for firms with greater levels of sophisticated investors.

On the other hand, the litigation announcement introduces news to the market. To the extent that accrual quality is an indicator of litigation outcomes, investors may still price the

news in the litigation announcement conditional on accrual quality. Sophisticated investors should be better able to incorporate the implications of accrual quality for future earnings information into stock prices than less sophisticated investors. Hence, the following hypothesis:

> *H3b: The association between accrual quality and the market reaction at the announcement of a lawsuit is stronger for firms with greater levels of sophisticated investors.*

2.5.2. Investor sophistication and post-announcement drift

Researchers have attempted to look for explanations for post-earnings announcement drift (PEAD). Besides information uncertainty discussed earlier, researchers have suggested that PEAD is a delayed response to new information due to investors' cognitive limits or transaction costs. Investors' cognitive limits have been documented in many previous research studies. For example, Barberis, Shleifer, and Vishny (1998) suggest the delayed market reaction can be due to investors' false assumptions about earnings properties. Similarly, DellaVigna and Pollet (2009) document that Friday earnings announcements, when investor attention is expected to be lower, have a 15% lower immediate response and a 70% higher delayed response, supporting investor inattention as an explanation for a delayed reaction. Hirshleifer, Hou, Teoh, and Zhang (2004) suggest that investors have limited attention, which can result in them incorrectly valuing abnormal accruals.

Other researchers focus on both institutional traders (i.e., large traders) and individual investors (i.e., small traders) and examine how the differences between them relate to PEAD. For instance, Bartov et al. (2000) report that firms with lower institutional holdings have greater

post-announcement drift, though their results are somewhat mixed. Similarly, Tao (2007) analyzes the impact of trader composition, the fraction of total trading volume of a stock accounted for by institutional trading, on the cross-section of stock returns. Tao finds that during 1980-2005, PEAD is significantly stronger in stocks with lower institutional trading volume, which suggests a positive association between institutional trading volume and stock price efficiency.

Evidence from other research studies, however, does not provide support for the notion that individual investors cause PEAD. For instance, Shanthikumar (2004) finds both small and large trader underreaction to earnings announcements, although small traders underreact more severely in the first month. Similarly, Hirshleifer, Myers, Myers, and Teoh (2009) find no evidence that trading by individual investors following extreme earnings surprises causes PEAD. They find that individuals are net buyers in the first three weeks following both extreme positive and negative earnings surprises as opposed to buying aggressively after extreme negative earnings news and selling after extreme positive earnings news. They also report that individual investor trading fails to subsume any of the power of extreme earnings surprises to predict future abnormal returns.

In summary, research suggests that stock prices do not fully adjust at the earnings announcement date in part because of information uncertainty and the lack of expertise, knowledge, or time to process new information quickly. I extend this line of research to the market underreaction at the announcement of a lawsuit. Based on studies suggesting that greater levels of sophisticated investors reduce the extent to which stock prices drift following an information release, I expect that the association between post-litigation announcement drift and accrual quality (reflecting both the likelihood of earnings management and information

uncertainty) will be mitigated for firms with a higher proportion of sophisticated investors. Alternatively stated, the hypothesis follows:

H4: The association between accrual quality and post-litigation announcement drift is stronger for firms with lower levels of sophisticated investors.

2.6 Market Reaction at the Revelation of Bad News

As discussed earlier, the revelation date refers to the time when the company can no longer withhold poor financial performance from the public. The adverse news results in a negative market reaction, causing damages to investors and potentially leading to a lawsuit. Earlier research suggests that the negative market reaction at the revelation of the bad news can be stronger and post-announcement drift can last longer than that around the announcement of the litigation (Ferris and Pritchard 2001). The market reaction at the revelation of bad news is used by plaintiffs' attorneys to support the filing of a lawsuit and to estimate damages. Hence, it is reasonable to expect that investors revise their assessments of both the likelihood of a subsequent lawsuit and the potential costs of litigation at the revelation date.

Class action lawsuits hurt the firm's reputation, distract management's attention, and impact firm's financials (Fields 1990). High settlements may even affect the firms' future viability. Prior research indicates that firms with lower accrual quality have a higher litigation risk because poor accrual quality can distort the appearance of a firm's financial situation and conflicts with shareholders' interest, contributing to the occurrence of a lawsuit. Heninger (2001) documents that auditor litigation risk is positively related to signed abnormal accruals, suggesting a relation between litigation risk and accrual quality. Similarly, using a large sample

of firms issuing stock from 1988 to 1997, and based on multivariate logistic regressions, DuCharme, Malatesta and Sefcik (2004) find that the likelihood of litigation involving stock offers is positively related to abnormal accruals around the offer. Grimm (2009) shows that the accruals of firms sued under Rule 10b-5 securities fraud class action lawsuits do not map as well into future cash flow realization as those of a return-matched "at-risk" sample for a period from 1984 to 2006 and concludes that the reported accruals of the firms involved in the lawsuits are of lower reliability compared to the "at-risk" sample which are not sued.

As discussed earlier, these studies support a relation between accrual quality captured in abnormal accruals and both the risk of litigation and potential litigation costs. If litigation imposes (substantial) costs that reduce firm value (Zingales 2007; Palmrose, Richardson and Scholz 2004; Ferris and Pritchard) and if, based on a rational expectations model, investors anticipate the value-destroying litigation (Caskey 2010), then investors may price the implications of accrual quality for litigation risk and outcomes at the revelation date, resulting in a more negative price reaction to the release of the bad news for lower accrual quality firms.[2] Given that litigation is not certain at the revelation date, the effect may not be as strong as at the litigation announcement date, however, it may, to some degree, preempt the subsequent pricing of accrual quality at the litigation announcement date. As a result, I also investigate the market reaction to bad news at the revelation date as it relates to accrual quality reflected in signed abnormal accruals:

[2] Gande and Lewis (2009) document that investors partially anticipate the lawsuits and capitalize part of the losses prior to the lawsuit filing.

H5: For firms that announce bad news who become subject to a lawsuit, those with lower accrual quality (i.e., more income increasing abnormal accruals) will experience a more negative stock price reaction at the announcement of bad news.

Complementary to this, I investigate whether lower accrual quality as reflected in signed and unsigned abnormal accruals as indicators of future litigation risk and costs and greater uncertainty, respectively, is related to post-revelation drift, hence, the following hypothesis (alternative form):

H6: Lawsuit firms with lower accrual quality experience more downward drift in stock prices following the revelation of bad news.

As discussed earlier, sophisticated investors may be aware of the differing accrual quality of the potentially litigated firms earlier than individual investors and may price accrual quality information well before the disclosure of the bad news. Hence, the association between accrual quality and market reaction around the revelation of bad news should be expected to be more apparent for firms with more individual investors. This leads to the following hypothesis:

H7a: The association between accrual quality and the market reaction at the revelation of bad news is weaker for firms with greater levels of sophisticated investors.

On the other hand, the bad news announcement introduces news to the market. To the extent that accrual quality is an indicator of litigation risk and outcomes, investors may still price the news in the bad news announcement conditional on accrual quality. Sophisticated investors

should be better able to incorporate the implications of accrual quality for future earnings information into stock prices than less sophisticated investors. Hence, the following hypothesis:

H7b: The association between accrual quality and the market reaction at the revelation of bad news is stronger for firms with greater levels of sophisticated investors.

Similarly, if as prior research suggests, there is drift following the revelation of bad news, and if the drift can be attributed to information uncertainty and the lack of expertise, knowledge, or time to process new information quickly, firms with more sophisticated investors should have less drift than firms with more individual investors following the revelation of bad news. Hence, the following hypothesis:

H8: The association between accrual quality and post-revelation announcement drift is stronger for firms with lower institutional holdings.

CHAPTER 3

DATA AND RESEARCH DESIGN

3.1. Data and Sample Selection

The "shareholder lawsuit" sample is hand collected from the Stanford Law school website (http://securities.stanford.edu) and is comprised of firms that were targets of rule 10(b)-5 litigation during 1996 to 2010. From this data source, I collect the following information: firm name, ticker, date the complaint was filed, class action beginning of period, class action ending of period, type of litigation and litigation status (settled, dismissed or open).[3] For most cases, plaintiffs claim damages that resulted from stock purchases at inflated share prices due to either management's misrepresentation or failure to disclose. I retain firms where the suit was filed in federal court against a corporation, the suit claimed wealth damage and alleged fraud involving the price of the defendant's common stock, and the case alleged misrepresentation of financial information and omissions regarding the true financial condition of the company (firms corresponding to "0", "1" and "4" categories in the types of litigation described in Appendix C).

Firms also must have sufficient data to calculate the accrual quality measures and market measures discussed in section 3.3. As in prior research, financial institutions (SIC codes 6000 to 6999) and utilities firms (SIC codes 4900 to 4999) are also excluded because these firms are in regulated industries where calculating discretionary accruals is problematic (Becker et al. 1998).

[3] See Appendix A for a description of the variables used from the lawsuit data set.

3.2. Litigation Related Dates and Time Periods

As briefly described earlier and illustrated in Figure 1, there are various dates around the litigation event that have been examined by prior research. My primary interest is in the litigation announcement date as well as the post-litigation period following the announcement of the lawsuit. However, I also analyze the revelation-date market reaction, when corrective disclosures reveal poor financial performance, and the post-revelation drift period. In this paper, the revelation date, based on the most recent disclosure, is defined as the end of the class action period as in Griffin et al (2004).

The mean and median number of days between different dates are presented in Panel B of Appendix B. Panel A of the Appendix provides industry composition information of these lawsuit firms.

3.3. Accrual Quality Measure in the Form of Signed and Unsigned Abnormal Accruals

In this paper, accrual quality is measured for two subsets of total accruals: abnormal accruals and abnormal current accruals. Within these two subsets, accrual quality is presumed to vary by the magnitude of abnormal accruals as an indicator of earnings management and the absolute magnitude of abnormal accruals as an indicator of information uncertainty.

3.3.1 First measure of accrual quality: abnormal total accruals

To proxy for abnormal accruals, I use the residuals from the modified Jones (1991) model and the residuals from the Dechow and Dichev (2002) model as modified in Francis et al. (2005). These abnormal accrual models allow for period-by-period changes in fundamentals in contrast to measuring abnormal accruals as the change in *total* accruals, which assumes that

underlying accounting fundamentals are constant over time. However, the abnormal accruals models are also based on the assumption that accounting fundamentals are not themselves manipulated (Schipper and Vincent 2003).

My first measure of accrual quality is the signed residuals from these two models. These abnormal accruals reflect that portion of total accruals that are likely to be managed by management. Following prior research, I take the view that income-increasing (decreasing) abnormal accruals are indicative of lower (higher) accrual quality. My second measure of accrual quality, used primarily to assess factors that contribute to post-announcement drift, is the absolute value of abnormal accruals, suggested in prior studies to reflect information uncertainty (Francis et al. 2007).

Following Dechow et al (1995), the modified Jones model is first estimated cross-sectionally in the year prior to the lawsuit being filed using all firms in the same two-digit SIC code as the lawsuit firms but excluding the lawsuit firm:

$$TA_{it} = \beta_0 + \beta_1 * (\Delta REV_{it} - \Delta REC_{it}) + \beta_2 * PPE_{it} + \varepsilon \qquad (1)$$

where:

TA = total accruals = EBXI-CFO (cash flow statement approach);

ΔREV = revenues in year t less revenues in year t-1;

ΔREC = receivables in year t less receivables in year t-1;

PPE = gross property, plant, and equipment in year t;

EBXI = Earnings before extraordinary items;

CFO = Cash flow from operations;

i = firm subscript; and

t = a year subscript, referring to the year prior to the year of litigation announcement.

All variables are scaled by lagged total assets.[4] The industry-specific parameters (β_0 , β_1 , β_2) estimated from the above regression are then used to calculate the predictable or normal component of total accruals by summing the products of the parameters and the lawsuit firm variables from the same time period. Abnormal accruals (*AbnTA*) are the difference between the lawsuit firm's total accruals and their normal accruals, as represented by the following equation:

$$AbnTA_{it} = TA_{it} - (\hat{\alpha} + \hat{\beta}_1[\Delta REV_{it} - \Delta REC_{it}] + \hat{\beta}_2 PPE_{it}) \qquad (2)$$

The underlying assumption of this two-step procedure is that the normal accruals of the lawsuit firm are the expected accruals level of the firm and can be considered typical in the industry (Teoh et al. 1998a). Hence, the normal accruals of all firms in the same two-digit SIC code can be used to benchmark the expected accruals of the lawsuit firms.

3.3.2. Second measure of accrual quality: abnormal total current accruals

Similarly, I also estimate abnormal accruals using the model first developed by Dechow and Dichev (2002) (referred to as "DD") and later augmented by Francis et al (2005), where working capital accruals are regressed on prior period, current period, and future period cash flow from operations as well as the Jones model variables. This model does not distinguish

[4] For firms that later restate their financial statements, the numbers on the financial statements may not be reliable and these firms may cause a (negative) market reaction to an extent that is significantly different from firms that did not restate their statements. Therefore, I use an indicator variable to distinguish these two types of firms in the return regression.

between management's "intentional" or "unintentional" estimation errors because management estimation errors, whether intentional or unintentional, affect accrual quality. Also, it requires the assumption that working capital accruals lag or lead cash receipts and disbursements by no more than one year. The model is presented as follows (all variables are scaled by lagged total assets):

$$TCA_{i,t} = \phi_{0,j} + \phi_{1,j} CFO_{i,t-1} + \phi_{2,j} CFO_{i,t} + \phi_{3,j} CFO_{i,t+1} + \phi_{4,j} \Delta \mathrm{Re}v_{i,t} + \phi_{5,j} PPE_{i,t} + \nu_{j,t} \qquad (3)$$

where *TCA* is total current accruals calculated as $\Delta CA - \Delta CL - \Delta CASH + \Delta STDEBT$. As in the first approach, year *t* refers to the year prior to the litigation year (e.g. if litigation year is 1996, then t = 1995). $\Delta CASH$ is change in cash from year t-1 to year t. $\Delta STDEBT$ is change in short-term debt from year t-1 to year t; *CFO* is cash flow from operations. All other variables and subscripts are as described earlier. Equation (3) is estimated cross-sectionally for all firms with the same two-digit SIC code as the lawsuit firms but excluding the lawsuit firm, and the parameters estimated from the regression are used to compute the lawsuit firms' normal portion of total current accruals from the same time period. Abnormal current accruals (*AbnCA*) will be the residual after the lawsuit firms' normal current accruals are deducted from their total current accruals. All the variables are described in Appendix A.

3.4 Model Specification for Testing Hypotheses

To test H1, whether firms with lower accrual quality experience a more negative price reaction around the filing announcement, I employ the following regression model:

$$\begin{aligned} CAR = \alpha + \beta_1 * LAQ + \beta_2 * Size + \beta_3 * Beta + \beta_4 * Skew + \beta_5 * FCF + \\ \beta_6 * MTB + \beta_7 * INST + \beta_8 * PID + \beta_9 * NumAnalyst + \varepsilon \end{aligned} \qquad (4)$$

where *CAR* is the cumulative abnormal return with CAR1 representing days (0, 1) relative to the litigation announcement date and where abnormal returns are measured as the firm's return less the value-weighted market index return. *LAQ* is one of the two proxies for low accrual quality, *AbnTA* or *AbnCA*. For interpretational purposes, higher *LAQ* indicates lower accrual quality. Thus, if lawsuit firms with lower accrual quality experience a more negative price reaction at the lawsuit announcement date (H1), then I expect β_1 to be negative.

Prior research suggests a number of factors that are associated with the market reaction to the filing announcement of the litigation (Ferris Pritchard 2001). These factors can be classified into three groups that represent firms' characteristics in three metrics: (1) litigation risk; (2) corporate governance; and (3) information asymmetry. The underlying reasoning is that firms with higher probability of being sued (higher litigation risk) are more likely to generate a more significant negative market reaction relative to firms with lower litigation risk. Firms with better corporate governance are generally associated with lower litigation risk, and hence are less likely to be associated with a negative market reaction. Similarly, firms with higher information asymmetry are more likely to withhold bad news from the public and withhold longer than firms with lower information asymmetry, and thus are more likely to produce (negative) market surprises with the revelation of bad news and the announcement of the litigation.

The first set of variables captures firms' litigation risk: firm size, beta and skewness of returns. Although large firms are more likely to be sued, smaller firms usually have higher information processing costs and higher trading costs and are less able to bear the consequences (i.e., fixed costs) of securities litigation relative to larger firms. Hence, smaller firm are expected to have a more negative stock price reaction than larger firms (Ferris and Pritchard 2001; Griffin et al 2004). Firm size (Size) is measured as the log of total assets at the end of the year preceding

the year of the lawsuit filing. Beta and return skewness are two measures of risk. Firms with a higher beta and return skewness have greater volatility or risk and so they are expected to be negatively correlated to the announcement returns. Ferris and Pritchard (2001) generally find significant and negative coefficients for beta and return skewness in their market return regressions around the revelation of bad news and the announcement of the litigation. However, Johnson et al. (2000) find the two factors are insignificant in determining the likelihood of litigation. I measure beta (Beta) as the slope coefficient from the market model using the value-weighted CRSP market return estimated over days [-250,-10] relative to the filing date. Return skewness (Skew) is estimated over the same time period.

The second set of variables capture a firm's potential agency problems that may also relate to litigation risk. They are free cash flow and the market-to-book ratio. Free cash flow captures the agency conflicts in that it represents excess cash flow held by the company but that could be available for distribution among all the securities holders. Increases in free cash flow may reflect substantial cuts in capital spending, which may be due to the slowing down of sales growth. Moreover, larger amounts of free cash flow suggest greater management discretion over investments that earn lower returns than cost of capital (Jensen 1986). Hence, free cash flow is expected to be negatively correlated with announcement returns. Ferris and Pritchard (2001) consistently find a negative association between free cash flow and market reaction at the revelation of bad news and around the announcement of litigation. Free cash flow (FCF) is estimated as in Lehn and Poulsen (1989), which is operating income before depreciation minus taxes, interest expenses, preferred dividends and ordinary dividends and then normalized by total assets of the prior year.

Higher market-to-book ratios (MTB) suggest higher potential for growth. Growth opportunities may reduce managers' incentives to manage income higher. Thus market-to-book is expected to be positively associated with market reactions. Strahan (1998) finds that sued firms have lower market-to-book ratios. Ferris and Pritchard (2001) find a positive association between this ratio and the market reaction at the revelation of bad news and around the announcement of the litigation. This ratio is calculated as the market value of equity divided by the book value of equity.

The final set of variables captures firms' information asymmetry: the percent of institutional equity holdings, the percent of independent directors and analyst following. Percent of equity holdings by institutional investors (INST) is calculated as the percent of shares outstanding held by institutional investors. Firms with a higher percentage of institutional investors are more likely to have a more transparent information environment because these firms are more likely to disclose information due to the pressure from the institutional investors, who have more power than individual investors. Moreover, securities analysts are more likely to follow companies held by a high percentage of institutional investors, reducing the information asymmetry between the investors and management. A more timely and accurate information flow reduces the market reaction at an announcement. Therefore, institutional equity holdings are expected to be positively related to market returns at the announcement of litigation. Ferris and Pritchard (2001) find a positive relation between institutional equity holding and market reaction at the revelation of bad news and announcement of litigation.

More independent boards may suggest stronger corporate governance and closer monitoring of the management. Hence, this variable is expected to be positively related to market returns. Jones (1986) finds a negative correlation between the proportion of independent

directors and the incidence of lawsuits, and Ferris and Pritchard (2001) report a positive relation between the percentage of independent directors and market returns at the revelation of bad news and announcement of litigation. I measure board independence (PID) as the percent of independent directors on the boards.

Firms with less analyst coverage are more likely to be associated with slower information flow (Hong et al 2000) and hence higher information asymmetry. Therefore, I expect a positive association between analyst following and the market reaction. Analyst following (NumAnalyst) is measured as the natural log of the number of analysts following the firm in the year of the litigation

To investigate H3, whether investor sophistication mitigates the market reaction to lower accrual quality at the lawsuit announcement date, I extend equation (4) as follows:

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables \quad (5)$$

where INST is the percentage of outstanding shares owned by institutional investors, measured in the year prior to lawsuit announcement and all other variables are as described earlier. If institutional investors more fully price accrual quality prior to the disclosure of the lawsuit (H3a), then the association between accrual quality and the market reaction at the filing announcement will be weaker (i.e., less negative) for firms with more institutional holdings ($\beta_2 > 0$). Alternatively, if institutional investors more quickly incorporate the information in accrual quality for future litigation costs as a conditioning effect on the news in the litigation announcement (H3b), then the association between accrual quality and the market reaction at the

filing announcement will be stronger (i.e., more negative) for firms with more institutional holdings ($\beta_2 < 0$)

Hypothesis 2 predicts that lower accrual quality firms are associated with more downward drift at the announcement of the litigation. To test this hypothesis, I first verify that there is a downward drift following the announcement of the litigation by examining the monthly stock returns over the six months following the announcement date. I then conduct two approaches to test H2. First, I examine the cross-sectional variation in monthly stock returns by accrual quality level. I sort the lawsuit firms into deciles based on the rank of each of the two proxies for accrual quality (signed abnormal accruals and the absolute value of abnormal accruals). I then estimate the correlation between the decile rank and the portfolios' stock returns over the six months following the announcement of the litigation. This approach relaxes the assumptions of the functional relation between accrual quality and drift; however it does not facilitate controlling for other factors that may be related to accrual quality and stock returns. H2 suggests a positive association between the decile rank of accrual quality and subsequent downward drift.

Alternatively, I test H2 using a version of equation (4) with CAR being defined as cumulative abnormal returns following the litigation announcement date for five time periods, CAR30 = [2, 30], CAR60 = [2, 60], CAR90 = [2, 90], CAR120 = [2, 120], and CAR180 = [2, 180]. If lawsuit firms with lower accrual quality experience more negative price drift following the lawsuit announcement (H2), then I expect β_1 to be negative.

Hypothesis 4 predicts that the association between accrual quality and post-litigation announcement drift is stronger for firms with lower institutional holdings. To test this hypothesis, I modify CAR in equation (5) to be the same five time periods following the

litigation announcement. If institutional investors more fully price accrual quality prior to or at the disclosure of the lawsuit, then the association between accrual quality and stock price drift following the filing announcement will be weaker for firms with more institutional holdings ($\beta_2 > 0$).

The test of H5 is very similar to the test of H1, and the tests of H6 through H8 are very similar to the tests of H2 through H4, with the exception that these tests will be conducted using CARs at and following the revelation of bad news (i.e., CAR1, CAR30, CAR60, CAR90, CAR120, and CAR180). For the stock price drift tests, I shorten the longest CAR horizon to be up to two days prior to the litigation announcement.

CHAPTER 4

EMPIRICAL RESULTS

For the firms that were sued between 1996 and 2010, 545 firms at the date the bad news about the firms' financial performance was revealed to the public (referred to as "revelation date") and 590 firms at the date the lawsuits were filed (referred to as "announcement date") satisfy the data requirements to calculate the accruals measure and other variables (excluding the variable of independent directors). Only 163 firms satisfy the data requirements when the percent of independent director variable (PID) is included. Since a large number of lawsuit firms are lost when the PID variable are included, results are presented with and without the requirement that firms have PID.

4.1. Descriptive Statistics

Abnormal total accruals (*AbnTA*) and abnormal current accruals (*AbnCA*) are the variables of interest. In Panel A of Table 1, mean *AbnTA* is both positive one year prior to the revelation year (0.096) and one year prior to the announcement year (0.089). Mean *AbnCA* are also positive one year prior to the revelation year (0.096) and one year prior to the announcement year (0.077). Mean beta of these firms is around 1.3, suggesting that the stock performance of these firms are generally a little more volatile than the market. Also, about 59% of the shares of these lawsuit firms were held by institutional investors one year prior to the year of the revelation (and one year prior to the year of the litigation announcement) and about 57% of the directors on the boards one year prior to the year of revelation and the litigation announcement year were

independent directors. On average, 9 analysts were following these lawsuit firms during the two periods.

Panel B of Table 1 provides the cumulative abnormal returns sequentially around the revelation date and the announcement date, and during five subsequent accumulation periods after these dates. Mean returns are persistently negative, except for the period CAR (0,180) following the litigation announcement date. Figure 2 presents a graphic representation of these cumulative abnormal returns around these two event dates and the subsequent periods. From this figure, we can see that when the bad news is first released to the public, the market responds negatively to it. Following this reaction, there is generally a downward drift over the next few months and then prices gradually went up. The mean cumulative abnormal return around the announcement date is negative and there is a much smaller downward drift for the first month (0,30) following the litigation, generally consistent with prior research that the downward drift following the litigation lasts for about three weeks (Griffin et al. (2000)).

4.2. Correlation Analysis

Table 2 provides the correlation matrix for the variables used in the study. Most correlations are consistent with expectations, particularly those relating net income (EBXI), accruals (TA and CA), cash flows (CFO), and abnormal total accruals (*AbnTA*) and abnormal current accruals (*AbnCA*). For example, EBXI is positively correlated with TA, CA, CFO, and *AbnTA*. Further, CFO is negatively related to TA and CA. Also of interest, net income is greater for larger firms (SIZE), firms with higher free cash flows (FCF), and firms with greater market-to-book ratios (MTB). Further, larger firms have more analysts following (NumAnalyst) and a

higher proportion of institutional holdings (INST). These correlations are generally consistent with prior studies examining similar variables.

4.3. Results from Univariate Regression

Table 3 presents the univariate regression results and provides information about the association between the decile ranks of accrual quality (using either abnormal total accruals or abnormal current accruals as proxy) and cumulative abnormal returns over the six periods following the announcement of the litigation and the revelation of bad news respectively. Announcement Date and Revelation Date refer to the dates around which cumulative abnormal returns (CAR) are measured. As discussed earlier, the accrual quality measures are all measured one year prior to these dates.

Panel A and Panel B provide results for CAR measured at the announcement date and subsequent periods, while Panel C and Panel D provide results for the revelation date and subsequent periods. PORTF represents the decile rank of the accrual quality proxies, either abnormal total accruals (*AbnTA*) in Panels A and C or abnormal current accruals (*AbnCA*) in Panels B and D. Across the panels, coefficients for PORTF are insignificant in Panel A and Panel B. In Panel C (*AbnTA* as proxy for accrual quality), the coefficient for PORTF is significantly positive at the revelation date CAR (0,1). Since the variable PORTF ranges from 1 to 10, with 1 indicating the highest accrual quality, the positive coefficients suggest that firms with lower accrual quality are associated with higher cumulative abnormal return, which is not consistent with H5, that is, firms with lower accrual quality experience more negative returns. In Panel D (*AbnTCA* as proxy for accrual quality), the coefficient for PORTF is significantly negative for the period CAR (0,180), consistent with H6 that firms with higher accrual quality

are associated with less post-announcement drift (i.e., higher cumulative abnormal returns). However, these results do not include controls for other factors that may be correlated with both accrual quality and post-announcement drift.

4.4. Results from Multivariate Regression

Table 4 presents multivariate regression results for H1 and H2. Panel A and Panel B of Table 4 report results for abnormal total accruals (*AbnTA*) and abnormal current accruals (*AbnCA*), respectively, as proxies for accrual quality. At the announcement date, coefficient for *AbnTA* (-0.033) is significantly negative, supporting H1 (first column) that poorer accrual quality firms are associated with lower market returns. Moreover, firms with higher institutional equity holdings are associated with more positive market reaction at CAR1 and the following five periods, consistent with the argument that sophisticated investors are able to process the information regarding the implication of the litigation more quickly than individual investors. No evidence suggests that *AbnTA* is associated with post-announcement drift (remaining columns) in a multivariate context, thus H2 is not supported. Firm size and beta are significantly positive beginning with CAR30 (for firm size) and CAR60 (for beta) and extending to CAR180. Skewness is negatively related to cumulative abnormal returns at the announcement date, consistent with the expectation that higher risk firms are associated with more negative market reaction.

Results at the announcement date and the following five periods for abnormal current accruals (*AbnCA*) in Panel B fail to find a significant negative coefficient on *AbnCA* at the announcement date (H1), and no evidence that abnormal current accruals are associated with

greater subsequent drift (H2). Results for other independent variables are very similar to those in Panel A.

Table 5 provides results for H3a, H3b, and H4. For interpretation purposes, a centering approach [5] is used (results without using a centering approach is similar and not tabulated). These hypotheses examine how the magnitude of institutional holdings influences the relation between accrual quality and the market reaction at the announcement date (H3a and H3b) and the following subsequent drift period (H4). Panel A (Panel B) reports results from using abnormal total accruals (abnormal current accruals) as the proxy for accrual quality.

Results in Table 5 confirm the negative association between accrual quality (in the form of *AbnTA*) and market reaction at the litigation announcement date. In Panel A, coefficient for *AbnTA* is significantly negative (-0.040) at CAR1, confirming results in Panel A of table 4. Also as in table 4, coefficients for institutional investors are all positive for the litigation announcement date and the following five periods. The interaction term (*AbnTA*INST)* is insignificant for at the announcement date (CAR1), failing to support either H3a or H3b. Further, the coefficient for the interaction term is significantly negative at 10% level for the first month following the announcement, again failing to provide support to H4 that the relation between accrual quality and the post-litigation announcement drift is stronger with lower institutional holdings.

Again, firm size and beta are positively related to firms' abnormal cumulative returns beginning with CAR30 (for firm size) and CAR60 (for beta) and extending to CAR180, and skewness of returns are negatively correlated with CAR1, confirming the results in Table 4.

[5] Specifically, I deduct the median institutional equity holdings (about 60%) from the original institutional holdings variable and use this measure in the regressions that have the interaction terms.

In Panel B of table 5 (using *AbnCA),* coefficients for *AbnCA* are generally insignificant for the announcement date and the following period except in period CAR30, where the coefficient is significantly negative. The coefficient for the interaction term is significantly negative at 1% level for the first month following the announcement, again failing to provide support to H4.

Table 6 provides multivariate regression results for H5 (whether firms with lower accrual quality experience a more negative price reaction around the revelation date) and H6 (whether lower accrual quality firms experience more downward drift following the revelation of the bad news). Panel A and Panel B provide results for *AbnTA* and *AbnCA*, respectively, the two proxies for accrual quality. Results in Panel A show that coefficients for abnormal total accruals (*AbnTA*) and abnormal current accruals are significantly positive around the revelation date and the following one month (CAR30) and become insignificant for a longer drift window, which is the opposite of what H5 (firms with poorer accrual quality are associated with more negative market reaction at the revelation date) and H6 (firms with poorer accrual quality are associated with greater downward post-revelation drift) suggest. On the other hand, however, these results may also suggest that investors may not incorporate the prior year accrual quality (in the form of abnormal total accruals) correctly in the stock prices at the revelation date and the following one month period and viewing higher abnormal total accruals in a positive light around the time of revelation of bad news. Only when the firms were sued later is the negative association between accrual quality and market reaction revealed (as suggested in Panel A of Table 4).

Another interesting result is that the coefficient for institutional holdings is significantly negative (-0.054) at the revelation date in both Panel A (for CAR1 and CAR30) and Panel B (for CAR1). Thus, firms with more sophisticated investors experience greater negative returns at the

revelation date, perhaps due to these investors better processing the implications of the litigation announcement for firm value at the time of the announcement. Still another, coefficients for the number of analysts following are significantly positive around the revelation of bad news and also for period CAR(0,60) further to CAR (0,180), suggesting that around the revelation of bad news, investors relied on analysts for direction and guidance, an interesting comparison of indifference from investors towards analysts around the litigation announcement date and the following periods.

Results for other independent variables in Table 6 suggest that firm size is positively related to cumulative abnormal returns over the days [0, 1] and the following drift period, implying that smaller firms experience a more negative reaction from investors at the revelation of the bad news. This is consistent with prior studies suggesting greater information asymmetry and a generally stronger market reaction to news associated with small firms. Coefficients for free cash flow are significantly positive for the five periods following revelation, suggesting that firms with more free cash flows are perceived more positively by the investors during this period of time.

Panel B of Table 6 (using *AbnCA* as proxy for accrual quality) does not support H5 (market will condition its reaction on accrual quality at the revelation of bad news). Coefficients for *AbnCA* are insignificant except for CAR (0,180). The significant negative coefficient (-0.193) for CAR (0,180) suggests that lower accrual quality is associated with greater downward drift, supporting H6. Results for other independent variables are similar to those in Panel A.

Table 7 provides regression results for H7a (whether investor sophistication mitigates the market reaction to lower accrual quality at the revelation date), H7b (whether investor sophistication accentuates the market reaction to lower accrual quality at the revelation date), and

H8 (whether the association between accrual quality and post-revelation drift is stronger for firms with lower institutional holdings). Results for the two proxies for accrual quality, *AbnTA* and *AbnCA* are reported in Panels A and B, respectively.

Results from testing H7a, H7b, and H8 indicate that the coefficient for the interaction term LAQ*INST is insignificant in Panel A for all CAR windows, suggesting that investor sophistication does not influence either the association between accrual quality (in the form of abnormal total accruals) and market reaction at the revelation dates (H7a and H7b) or the association between accrual quality and subsequent return drift (H8). Confirming the results in Table 6, abnormal total accruals (*AbnTA)* are positively related to cumulative abnormal returns at the revelation date and the following one month period; abnormal current accruals (*AbnCA*) are negatively related to the long drift window (0,180) relative to the revelation date. Results for other independent variables are similar to those reported in previous tables.

CHAPTER 5

ADDITIONAL ANALYSIS AND DISCUSSION

5.1 Adding Independent Directors as Control Variable

Table 8 presents additional multivariate regression results after including the percent of independent directors (*PID*) as a control variable in the regressions. When this variable is included in the regressions, the sample sizes are reduced drastically to only 163 lawsuit firms that satisfy the data requirement for the announcement and revelation dates. This likely decreases the power of the tests to detect the effects of interest.

Panel A and Panel B of Table 8 reports results from testing H1 through H4, that is the association between accrual quality and the market reaction at the litigation announcement date and subsequent drift periods as well as the effect of institutional investors on these relations using *AbnTA* (Panel A) and *AbnCA* (Panel B) as proxy for accrual quality. Panel C and Panel D of Table 8 reports results from testing H5 through H8, that is the association between accrual quality and the market reaction at the revelation date and subsequent drift periods as well as the effect of institutional investors on these relations using *AbnTA* (Panel A) and *AbnCA* (Panel B) as proxy for accrual quality. Results with and without the interaction term LAQ*INST are both presented, with model 1 not having the interaction term and model 2 having the interaction term.

Results in Panel A support H1, that is, firms with poorer accrual quality (in the form of *AbnTA*) are associated with more negative market reaction at the litigation announcement date. *AbnCA*, the other accrual quality proxy, does not support H1. An interesting result in Panel A and Panel B is that the coefficient for free cash flow is significantly negative (-0.409 and -0.415 in Panel A and -0.422 in Panel B) for the period CAR (0,120) following the litigation

announcement. Since larger size firms may be more likely to be included in this sample (i.e. the sample with information regarding independent directors), the result may suggest that for these larger size firms, investors view firms with more free cash flows negatively.

Panels C (*AbnTA*) and D (*AbnCA*) report results from testing H5 through H8, that accrual quality is associated with the market reaction at the revelation date and subsequent drift period, and that the magnitude of institutional holdings affects these relations. The evidence in Panel C for *AbnTA* and Panel D for *AbnCA* does not support H5 or H6. Again, the negative coefficients for the interaction term (-0.514 for *AbnTA* INST* in Panel C and -0.528 for *AbnCA* in Panel D) at the revelation date do not support H7. Similarly the coefficients for the interaction term are not significant for the following five periods after revelation.

5.2 Other Sensitivity Tests

I also tried to use different windows to measure the cumulative abnormal returns. For instance, I used day (2, 30), (2, 60), (2, 90), (2, 120) and (2, 180) relative to the revelation date and the announcement date as the drift window to obtain the cumulative abnormal return values. Results using these different windows do not change significantly. Other sensitivity analyses included using quarterly data and the unsigned accruals measure to test the hypotheses. Results are also similar to what is reported here.

CHAPTER 6

SUMMARY AND CONCLUSIONS

The main contribution of the paper is to test whether accrual quality in the form of abnormal total accruals and total current accruals is priced by the market at the revelation date (the time when the bad news about the firms' financial performance was first released to the public) and at the announcement date (the time when these firms were finally sued) and during the respective following five different periods. Further it tests the role institutional investors play in the association between the accrual quality and the market response towards the two litigation events (revelation of bad news and the filing of the lawsuits).

Empirical results in this study show that in general the revelation dates and the announcement dates are two separate events for the firms and are characterized by different features. Firms are more negatively impacted at the revelation dates of the bad news, and market reaction at the dates when the filing was announced was preempted by the reaction to these firms at the revelation.

Regressions using abnormal total accruals as proxy for accrual quality support the hypotheses that investors price accrual quality (in the form of abnormal total accruals) at the announcement date and that they react more negatively to firms with lower accrual quality. The negative relation between accrual quality and the market reaction does not continue in the period following the litigation. Institutional equity holdings are positively related to cumulative abnormal returns at the announcement date and the following period, but are negatively related to the abnormal returns at the revelation date and the following one month, suggesting that institutional investors may be able to better process the implications of the litigation for firm value at the litigation announcement time. Results also suggest that institutional investors do not

seem to play any role in the effect of accrual quality (in the form of abnormal total accruals) on the market reaction. Results of regressions using abnormal total current accruals as proxy for accrual quality suggest that firms with lower accrual quality (in the form of current accruals) are negatively associated with cumulative abnormal returns over the days (0,180) following the revelation of bad news.

APPENDIX A

TABLES AND FIGURES

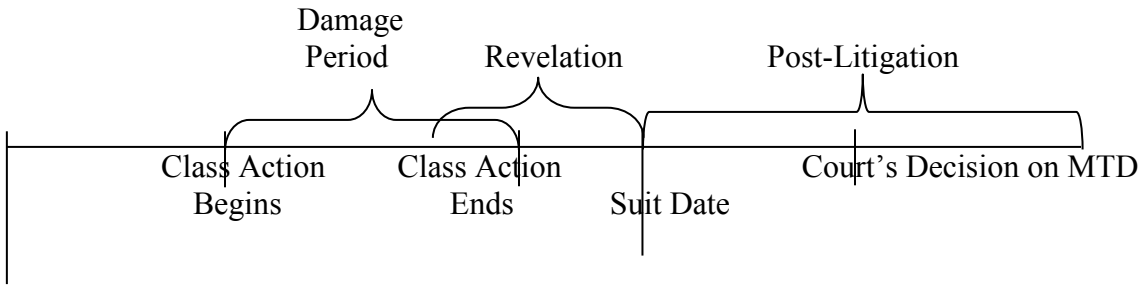

Figure 1: Litigation Related Dates and Periods

Fig.1 Litigation timeline. In this study, the three litigation dates separate the litigation event into several litigation-related periods. The three dates identify when the class action begins and ends and the lawsuit announcement date. The litigation-related periods defined by these dates are the damage period (the period covered by the class action), the post-litigation period (the period following the lawsuit announcement), and the revelation period (the period between the damage and post-litigation period).

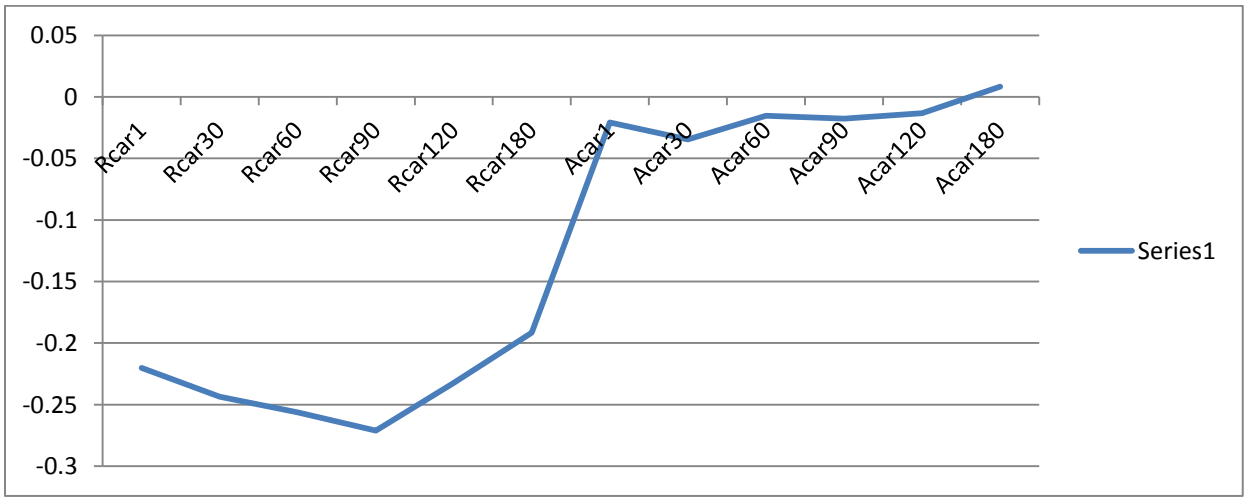

Figure 2: Cumulative Abnormal Return, Post-Revelation and Post-Announcement Drift

Fig.2 depicts the cumulative abnormal return (CAR) around the two event dates—the date of the revelation of the bad news (Rev. Date or RCAR1) and the date of the litigation announcement (Ann. Date or ACAR1) and Cumulative Abnomal Return over the five time periods—CAR30, CAR60, CAR90, CAR120 and CAR180, with RCAR referring to the periods following the Revelation date and ACAR the Announcement date respectively. Specifically, CAR1 is the cumulative return over the days (0, 1) relative to the revelation date and the announcement date. CAR30~CAR180 refer to the cumulative return following the revelation date and the announcement date over the five time periods, days [2, 30], [2, 60], [2, 90], [2, 120] and [2, 180]. Abnormal returns are measured as the firm's return less the value-weighted market index return.

Table 1: Descriptive Statistics

Panel A: Descriptive statistics of independent variables one year prior to the revelation year & one year prior to the litigation announcement year.

	At revelation date:				At announcement date:			
Variable	Mean	Median	Lower Quartile	Upper Quartile	Mean	Median	Lower Quartile	Upper Quartile
EBXI	0.010	0.054	-0.007	0.102	-0.019	0.027	-0.097	0.098
CFO	0.057	0.079	0.005	0.153	0.064	0.080	-0.008	0.158
TA	-0.060	-0.054	-0.121	0.003	-0.070	-0.056	-0.120	-0.003
TCA	0.130	0.028	-0.025	0.148	0.108	0.023	-0.028	0.121
NormTA	-0.155	-0.154	-0.234	-0.076	-0.158	-0.160	-0.238	-0.085
NormCA	0.039	0.020	-0.010	0.065	0.027	0.014	-0.015	0.058
AbnTA	0.096	0.103	0.006	0.199	0.089	0.098	0.007	0.197
AbnCA	0.096	0.018	-0.057	0.123	0.077	0.018	-0.058	0.114
SIZE	6.388	5.977	4.872	7.856	6.419	5.968	4.945	7.845
FCF	0.076	0.099	0.016	0.169	0.061	0.090	0.001	0.155
MTB	3.713	2.454	1.469	4.545	3.537	2.360	1.398	4.214
SKEW	0.038	0.182	-0.479	0.624	-0.720	-0.319	-1.649	0.343
BETA	1.288	1.208	0.797	1.677	1.267	1.143	0.807	1.618
NumAnalyst	9.054	7.000	3.000	13.000	9.137	7.000	3.000	13.000
INST	0.593	0.636	0.345	0.822	0.593	0.632	0.343	0.828
PID	0.577	0.615	0.333	0.778	0.570	0.600	0.333	0.750

Table 1-continued

Panel B: Descriptive statistics of dependent variables at revelation date

	At revelation date:				At announcement date:			
Variable	Mean	Median	Lower Quartile	Upper Quartile	Mean	Median	Lower Quartile	Upper Quartile
car1	-0.22	-0.20	-0.33	-0.08	-0.02	-0.01	-0.04	0.02
car30	-0.24	-0.21	-0.36	-0.10	-0.03	-0.03	-0.13	0.07
car60	-0.26	-0.25	-0.40	-0.07	-0.02	-0.01	-0.15	0.11
car90	-0.27	-0.25	-0.47	-0.05	-0.02	-0.01	-0.20	0.14
car120	-0.23	-0.17	-0.46	-0.03	-0.01	0.00	-0.20	0.17
car180	-0.19	-0.16	-0.41	0.01	0.01	-0.01	-0.22	0.23

This table provides the mean, median, the lower quartile and upper quartile of all the independent variables and dependent variables of the lawsuit firms. *AbnTA* is abnormal total accruals and is the difference between the lawsuit firms' total accruals and the normal accruals. *AbnCA* is abnormal total current accruals and is calculated using the DD (2002) model augmented by Francis et al (2005). For specific calculation of normal and total accruals and abnormal total current accruals, refer to section 3.3: accrual quality measure. *SIZE* is measured as the log of total assets at the end of the year preceding the year of the lawsuit filing. *Free cash flow (FCF)* is measured as the operating income before depreciation minus taxes, interest expenses, preferred dividends and ordinary dividends and then normalized by total assets of the prior year. *MTB:* Market-to-Book ratio is calculated as the market value of equity divided by the book value of equity. *BETA* is the slope coefficient form the market model using the value-weighted CRSP market return estimated over days (-250, -10) relative to the date of the revelation date and the announcement date. SKEW is the SKEWness of the firms returns measured over the same period as firms' BETA. *NumAnalyst* is calculated as the natural log of the number of analysts following the firm in the year of the revelation (litigation). *INST* is calculated as the percent of shares outstanding held by institutional investors in the year of revelation (litigation). *PID* is calculated as the percent of independent directors on the boards in the year of revelation (litigation). The calculation of cumulative abnormal returns (CAR) is described earlier in figure 2. 590 (545) lawsuit firms were involved in the calculation of the descriptive statistics at the announcement dates (revelation dates); only 163 firms were used to calculate the statistics related to the independent director variable.

Table 2: Correlation Matrix for Independent Variables Used in the Study

	EBXI	CFO	TA	CA	NormTA	NormCA	*AbnTA*	*AbnCA*	SIZE	FCF	MTB	SKEW	BETA	NumAnalyst	INST
EBXI		**0.81**	**0.38**	0.07	**0.09**	**0.16**	**0.27**	-0.03	**0.24**	**0.67**	**0.11**	**-0.18**	**-0.16**	**0.18**	**0.17**
CFO	**0.73**		**-0.13**	**-0.11**	-0.02	0.00	**-0.09**	-0.05	**0.28**	**0.67**	0.08	**-0.14**	**-0.12**	**0.28**	**0.23**
TA	**0.28**	**-0.29**		**0.20**	**0.20**	**0.10**	**0.73**	**0.18**	-0.02	**0.14**	0.06	**-0.10**	**-0.11**	**-0.09**	-0.03
CA	**0.17**	**-0.14**	**0.35**		**0.22**	**0.24**	0.04	**0.95**	**-0.22**	-0.01	0.00	0.03	**0.25**	**-0.16**	**-0.20**
NormTA	0.04	**-0.09**	**0.18**	**0.22**		**0.25**	**-0.50**	**0.18**	**-0.08**	0.06	-0.04	-0.02	**0.08**	**-0.12**	**-0.10**
NormCA	**0.19**	0.01	0.08	**0.18**	**0.16**		-0.08	-0.04	**-0.23**	**0.24**	**0.14**	**0.09**	**0.15**	**-0.17**	**-0.17**
AbnTA	**0.21**	**-0.13**	**0.61**	**0.12**	**-0.56**	-0.04		0.06	0.03	**0.09**	**0.08**	-0.07	**-0.14**	-0.01	0.05
AbnCA	0.02	0.00	**0.25**	**0.83**	**0.13**	**-0.27**	**0.14**		**-0.15**	-0.07	-0.04	0.01	**0.20**	**-0.11**	**-0.15**
SIZE	**0.12**	**0.24**	-0.03	**-0.15**	**-0.08**	**-0.22**	0.02	-0.06		**0.12**	-0.04	**-0.11**	**-0.21**	**0.68**	**0.29**
FCF	**0.63**	**0.58**	0.06	0.04	0.05	**0.25**	0.05	-0.06	**0.10**		**0.16**	-0.07	**-0.11**	**0.12**	**0.16**
MTB	**0.29**	**0.20**	0.05	0.05	-0.04	**0.20**	**0.09**	-0.03	**-0.08**	**0.30**		**0.10**	-0.04	**0.12**	-0.01
SKEW	**-0.12**	**-0.10**	**-0.10**	-0.04	-0.03	**0.10**	-0.06	-0.05	**-0.15**	-0.07	**0.11**		**0.11**	-0.01	-0.07
BETA	**-0.15**	**-0.16**	**-0.09**	**0.18**	0.06	**0.16**	**-0.09**	**0.12**	**-0.20**	**-0.16**	-0.01	**0.11**		-0.06	**-0.13**
NumAnalyst	**0.18**	**0.30**	**-0.11**	**-0.09**	**-0.16**	**-0.17**	0.02	0.01	**0.70**	**0.14**	**0.10**	-0.06	-0.07		**0.36**
INST	**0.13**	**0.22**	-0.05	**-0.13**	**-0.12**	**-0.15**	0.05	-0.03	**0.36**	**0.18**	-0.03	**-0.08**	**-0.12**	**0.47**	

This table presents the Pearson correlation and the Spearman correlation of the independent variables of this study. The upper right corner is the Pearson correlation, and the lower left corner provides the Spearman correlation. The correlation is based on the variables of the 545 lawsuit firms at the date when the revelation of the bad news was revealed to the public. The bold values in the table indicate significant correlations at 5% level.

Table 3: Association between Decile Ranks of Accrual Quality and Abnormal Stock Returns

Panel A: Announcement Date (Abnormal Total Accruals)

	CAR1	CAR30	CAR60	CAR90	CAR120	CAR180
Intercept	**-0.017**	**-0.048**	-0.057	-0.045	-0.049	-0.017
	(0.14)	(0.03)	(0.11)	(0.25)	(0.12)	(0.72)
PORTF	-0.001	0.001	0.004	0.002	0.004	0.001
	(0.41)	(0.80)	(0.42)	(0.74)	(0.43)	(0.89)
Adj. R	-0.03	-0.12	-0.03	-0.11	-0.04	-0.12

Panel B: Announcement Date (Abnormal Current Accruals)

	CAR1	CAR30	CAR60	CAR90	CAR120	CAR180
Intercept	-0.010	**-0.046**	-0.017	-0.010	-0.027	-0.034
	(0.45)	(0.09)	(0.60)	(0.72)	(0.42)	(0.36)
PORTF	-0.003	0.001	-0.003	-0.004	-0.001	0.004
	(0.19)	(0.79)	(0.58)	(0.37)	(0.92)	(0.48)
Adj. R	0.10	-0.12	-0.08	-0.01	-0.12	-0.05

Panel C: Revelation Date (Abnormal Total Accruals)

	CAR1	CAR30	CAR60	CAR90	CAR120	CAR180
Intercept	-0.242	-0.258	-0.257	-0.262	-0.255	-0.239
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
PORTF	**0.005***	0.003	0.002	0.000	0.000	-0.004
	(0.06)	(0.43)	(0.69)	(0.97)	(0.96)	(0.54)
Adj. R	0.29	-0.04	-0.12	-0.14	-0.14	-0.08

Panel D: Revelation Date (Abnormal Current Accruals)

	CAR1	CAR30	CAR60	CAR90	CAR120	CAR180
Intercept	-0.207	-0.203	-0.203	-0.21	-0.209	-0.181
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
PORTF	-0.002	-0.008	-0.009	-0.011	-0.009	**-0.015***
	(0.69)	(0.27)	(0.23)	(0.17)	(0.29)	(0.08)
Adj. R	-0.1	0.05	0.09	0.15	0.04	0.28

This table provides the correlation between the 10-decile rank of accrual quality (using the two proxies in the study) of the lawsuit firms and the abnormal stock returns over the six periods following the announcement of the litigation and following the revelation of the bad news respectively. *PORTF* is the decile rank ranging from 1 to 10, with 1containing the group of lawsuit firms with the lowest value of *AbnTA* (i.e. highest accrual quality). *P-values* are in parenthesis. ***, **, and * indicates significance at 1%, 5%, and 10% level respectively.

Table 4: Multivariate Analysis of the Association between Accrual quality and Market Reaction at the Announcement date

Panel A: Regression results using the first measure of accrual quality: *AbnTA* (n= 590)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * Size + \beta_3 * Beta + \beta_4 * Skew + \beta_5 * FCF + \beta_6 * MTB + \beta_7 * INST + \beta_8 * NumAnalyst + \varepsilon$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.045	-0.2	-0.203	-0.242	-0.321	-0.309
	(0.01)	(<0.01)	(<0.01)	0.00	(<0.01)	(<0.01)
AbnTA	**-0.033***	-0.032	-0.027	-0.032	-0.002	-0.021
	(0.07)	(0.44)	(0.62)	(0.63)	(0.98)	(0.82)
SIZE	0.004	**0.02*****	**0.013****	**0.02*****	**0.021****	**0.021***
	(0.12)	(<0.01)	(0.06)	(0.02)	(0.03)	(0.07)
FCF	-0.027	0.02	0.005	-0.056	-0.068	-0.03
	(0.15)	(0.64)	(0.93)	(0.41)	(0.37)	(0.75)
MTB	0.001	**0.004***	0.002	0.003	0.004	-0.002
	(0.46)	(0.09)	(0.50)	(0.31)	(0.30)	(0.69)
SKEW	**-0.006****	-0.001	0.001	-0.005	-0.013	-0.008
	(0.01)	(0.83)	(0.87)	(0.57)	(0.16)	(0.47)
BETA	-0.008	0.013	**0.029***	**0.035***	**0.07*****	**0.077*****
	(0.13)	(0.28)	(0.07)	(0.08)	(<0.01)	(<0.01)
NumAnalyst	0.000	-0.002	0.000	-0.001	-0.001	-0.001
	(0.55)	(0.11)	(0.89)	(0.60)	(0.69)	(0.72)
INST	**0.022***	**0.046***	**0.097*****	**0.093****	**0.123****	**0.162*****
	(0.07)	(0.10)	(0.01)	(0.04)	(0.02)	(0.01)
Pr>F	<0.01	<0.01	0.01	0.04	<0.01	0.01
Adj. R	0.03	0.03	0.02	0.02	0.03	0.02

Table 4-continued

Panel B: Regression results using the second measure of accrual quality: *AbnCA* (n= 590)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * Size + \beta_3 * Beta + \beta_4 * Skew + \beta_5 * FCF + \beta_6 * MTB + \beta_7 * INST + \beta_8 * NumAnalyst + \varepsilon$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.045	-0.202	-0.203	-0.244	-0.327	-0.317
	(0.01)	(<0.01)	(<0.01)	(<0.01	(<0.01)	(<0.01)
AbnCA	-0.015	-0.002	-0.011	0.000	0.038	0.04
	(0.17)	(0.95)	(0.73)	(0.99)	(0.39)	(0.46)
SIZE	0.003	**0.02*** **	**0.013***	**0.019****	**0.021****	**0.021***
	(0.17)	(<0.01)	(0.06)	(0.02)	(0.03)	(0.07)
FCF	-0.029	0.02	0.004	-0.055	-0.063	-0.025
	(0.13)	(0.64)	(0.95)	(0.41)	(0.41)	(0.79)
MTB	0.000	0.003	0.002	0.003	0.004	-0.002
	(0.65)	(0.11)	(0.54)	(0.34)	(0.28)	(0.68)
SKEW	**-0.005****	-0.001	0.001	-0.004	-0.013	-0.008
	(0.02)	(0.87)	(0.86)	(0.60)	(0.17)	(0.50)
BETA	-0.006	0.014	**0.031***	**0.036***	**0.068*****	**0.076*****
	(0.24)	(0.24)	(0.06)	(0.07)	(<0.01)	(<0.01)
NumAnalyst	0.000	-0.002	0.000	-0.001	-0.001	-0.001
	(0.59)	(0.12)	(0.87)	(0.62)	(0.69)	(0.73)
INST	**0.02***	0.045	**0.096*****	**0.093****	**0.126*****	**0.165*****
	(0.10)	(0.11)	(0.01)	(0.04)	(0.01)	(0.01)
Pr>F	0.01	<0.01	0.01	0.04	<0.01	0.01
Adj. R	0.02	0.03	0.02	0.02	0.03	0.02

This table provides the regression results for H1~H2 using the two proxies for accrual quality (*LAQ*): abnormal total accruals (*AbnTA*) in Panel A and abnormal total current accruals (*AbnCA*) in Panel B. Test results for H1 (whether firms with lower accrual quality experience a more negative price reaction around the announcement date). Results for H2 (lower accrual quality firms are associated with more downward drift following the announcement of the litigation) are laid under CAR30 to CAR180. Abnormal total current accruals (*AbnAcc)* are measured using the model: $AbnAcc_{it} = TA_{it} - (\hat{\alpha} + \hat{\beta}_1[\Delta REV_{it} - \Delta REC_{it}] + \hat{\beta}_2 PPE_{it})$, and abnormal current accruals (*AbnCA)* are measured using the model: $TCA_{i,t} = \phi_{0,j} + \phi_{1,j} CFO_{i,t-1} + \phi_{2,j} CFO_{i,t} + \phi_{3,j} CFO_{i,t+1} + \phi_{4,j} \Delta \mathrm{Re} v_{i,t} + \phi_{5,j} PPE_{i,t} + \nu_{j,t}$.Firm size (*SIZE)* is measured as the log of total assets at the end of the year preceding the year of the lawsuit filing. Beta (*BETA)* is measured as the slope coefficient from the market model using the value-weighted CRSP market return estimated

over days (-250,-10) relative to the filing date. *SKEW* is the return skewness, calculated as the sum of the deviations from the mean return raised to the third power, divided by the sample size minus 1, times the standard deviation raised to the third power. Free cash flow (*FCF)* is operating income before depreciation minus taxes, interest expenses, preferred dividends and ordinary dividends and then normalized by prior year total assets. *MTB* ratio is calculated as the market value of equity divided by the book value of equity. *INST*: % of institutional equity holdings. Number of analyst following (*NumAnalyst*) is measured as the natural log of the number of analyst following. *P-values* are in parenthesis. ***, **, and * indicates significance at 1%, 5%, and 10% level respectively.

Table 5: Effect of Institutional Investors at the Announcement Date

Panel A: Regression results using the first measure of accrual quality: *AbnTA* (n= 590)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.047	-0.206	-0.208	-0.246	-0.322	-0.314
	(0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
AbnTA	**-0.040****	-0.06	-0.049	0.047	-0.009	-0.043
	(0.04)	(0.18)	(0.41)	(0.73)	(0.91)	(0.66)
SIZE	0.003	**0.02*****	**0.013***	**0.019****	**0.021****	**0.02***
	(0.15)	(<0.01)	(0.07)	(0.03)	(0.03)	(0.08)
FCF	-0.028	0.016	0.002	-0.058	-0.069	-0.033
	(0.14)	(0.70)	(0.97)	(0.39)	(0.37)	(0.72)
MTB	0.001	**0.003***	0.002	0.003	0.004	-0.002
	(0.47)	(0.10)	(0.51)	(0.32)	(0.30)	(0.69)
SKEW	**-0.006*****	-0.001	0.001	-0.005	-0.013	-0.008
	(0.01)	(0.78)	(0.90)	(0.56)	(0.15)	(0.46)
BETA	-0.008	0.013	**0.029***	**0.034***	**0.07*****	**0.077*****
	(0.12)	(0.30)	(0.07)	(0.08)	(<0.01)	(<0.01)
NumAnalyst	0.000	-0.002	0.000	-0.001	-0.001	-0.001
	(0.58)	(0.13)	(0.85)	(0.63)	(0.69)	(0.75)
INST	**0.028****	**0.067****	**0.115*****	**0.107****	**0.129****	**0.180*****
	(0.04)	(0.03)	(<0.01)	(0.03)	(0.02)	(0.01)
*AbnTA*INST*	-0.062	**-0.239***	-0.191	-0.153	-0.064	-0.194
	(0.32)	(0.09)	(0.30)	(0.50)	(0.80)	(0.53)
Pr>F	0.01	0	0.01	0.05	0	0.01
Adj.R	0.03	0.03	0.03	0.01	0.03	0.02

Table 5-continued

Panel B: Regression results using the second measure of accrual quality: *AbnCA* (n= 590)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.046	-0.21	-0.207	-0.246	-0.328	-0.32
	(0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
AbnCA	-0.018	**-0.071****	-0.048	-0.013	0.026	0.01
	(0.21)	(0.03)	(0.27)	(0.80)	(0.67)	(0.89)
SIZE	0.003	**0.02*****	**0.013***	**0.019****	**0.021****	**0.021***
	(0.17)	(<0.01)	(0.07)	(0.02)	(0.03)	(0.07)
FCF	-0.028	0.03	0.009	-0.054	-0.062	-0.021
	(0.14)	(0.48)	(0.87)	(0.43)	(0.42)	(0.83)
MTB	0.000	0.003	0.002	0.003	0.004	-0.002
	(0.65)	(0.11)	(0.54)	(0.34)	(0.28)	(0.68)
SKEW	**-0.005****	0.000	0.002	-0.004	-0.012	-0.007
	(0.02)	(0.96)	(0.79)	(0.62)	(0.18)	(0.53)
BETA	-0.006	0.014	**0.03**	**0.036**	**0.068*****	**0.076**
	(0.24)	(0.26)	(0.06)	(0.07)	(<0.01)	(0.01)
NumAnalyst	0.000	-0.002	0.000	-0.001	-0.001	-0.001
	(0.59)	(0.11)	(0.88)	(0.61)	(0.69)	(0.73)
INST	**0.021***	**0.065****	**0.106*****	**0.096****	**0.13*****	**0.174*****
	(0.09)	(0.02)	(0.01)	(0.04)	(0.01)	(0.01)
*AbnCA*INST*	-0.015	**-0.276*****	-0.147	-0.051	-0.047	-0.12
	(0.71)	(<0.01)	(0.22)	(0.72)	(0.77)	(0.55)
Pr>F	0.01	<0.01	0.01	0.06	<0.01	0.01
Adj. R	0.02	0.04	0.03	0.01	0.03	0.02

This table provides the regression result for H3~H4 using the two proxies for accrual quality: abnormal total accruals (*AbnTA*) in Panel A and abnormal total current accruals (*AbnCA*) in Panel B. Test results for H3 (whether investor sophistication mitigates the market reaction to lower accrual quality at the announcement date) are laid out under *CAR1*. Results for H4 (the association between accrual quality and post-announcement drift is stronger for firms with lower institutional holdings) are laid under CAR30 to CAR180. *LAQ*INST* is the interaction term: one of the two proxies of accrual quality (*LAQ*) is interacted with the percent of institutional equity holdings (*INST)*. *ControlVariable* are the control variables and they are: *SIZE, FCF, MTB, SKEW, BETA, NumAnalyst* and *INST* and are described and measured as earlier. *P-values* are in parenthesis. ***, **, and * indicates significance at 1%, 5%, and 10% level respectively.

Table 6: Multivariate Analysis of the Association between Accrual Quality and Market Reaction at the Revelation Date

Panel A: Regression results using the first measure of accrual quality: *AbnTA* (n= 545)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * Size + \beta_3 * Beta + \beta_4 * Skew + \beta_5 * FCF + \beta_6 * MTB + \beta_7 * INST + \beta_8 * NumAnalyst + \varepsilon$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.329	-0.403	-0.415	-0.38	-0.417	-0.446
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
AbnTA	**0.075****	**0.072***	0.035	0.006	0.001	-0.028
	(0.02)	(0.07)	(0.43)	(0.90)	(0.99)	(0.58)
SIZE	**0.023*****	**0.025*****	**0.022*****	**0.017*****	**0.021*****	**0.029*****
	(<0.01)	(<0.01)	(<0.01)	(0.02)	(0.01)	(<0.01)
FCF	0.022	**0.081***	**0.117****	**0.104***	**0.154*****	**0.140****
	(0.58)	(0.08)	(0.02)	(0.06)	(0.01)	(0.02)
MTB	-0.001	0.002	0.001	0.001	0.001	0.001
	(0.70)	(0.40)	(0.68)	(0.84)	(0.85)	(0.69)
SKEW	0.004	-0.008	-0.01	**-0.018****	**-0.018****	**-0.014***
	(0.48)	(0.23)	(0.17)	(0.02)	(0.03)	(0.10)
BETA	-0.018	-0.005	-0.003	-0.02	-0.013	0.005
	(0.11)	(0.71)	(0.83)	(0.20)	(0.44)	(0.79)
NumAnalyst	**0.002***	0.002	**0.004****	**0.004****	**0.004****	0.003
	(0.09)	(0.21)	(0.05)	(0.04)	(0.05)	(0.20)
INST	**-0.061****	**-0.051***	-0.03	-0.007	-0.002	-0.045
	(0.02)	(0.10)	(0.38)	(0.84)	(0.96)	(0.26)
Pr>F	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Adj. R	0.11	0.10	0.09	0.08	0.10	0.08

P-values are in parenthesis. ***, **, and * indicates significance at 1%, 5%, and 10% level respectively.

Table 6-continued

Panel B: Regression results using the second measure of accrual quality: *AbnCA* (n= 545)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * Size + \beta_3 * Beta + \beta_4 * Skew + \beta_5 * FCF + \beta_6 * MTB + \beta_7 * INST + \beta_8 * NumAnalyst + \varepsilon$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.331	-0.405	-0.419	-0.293	-0.465	-0.587
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
AbnCA	0.015	0.022	-0.028	-0.052	-0.038	-0.193
	(0.54)	(0.44)	(0.59)	(0.46)	(0.67)	(0.08)
SIZE	**0.024*** **	**0.026*** **	**0.022** **	0.007	**0.034***	**0.061*** **
	(<0.01)	(<0.01)	(0.04)	(0.64)	(0.07)	(0.01)
FCF	0.024	**0.082***	**0.187** **	0.146	**0.191** **	-0.009
	(0.54)	(0.08)	(0.02)	(0.15)	(0.05)	(0.95)
MTB	0.000	0.002	0.004	0.001	-0.002	-0.001
	(0.82)	(0.33)	(0.35)	(0.86)	(0.72)	(0.91)
SKEW	0.003	-0.009	-0.017	**-0.033** **	-0.022	0.000
	(0.59)	(0.20)	(0.12)	(0.02)	(0.19)	(0.98)
BETA	**-0.021***	-0.008	-0.004	**-0.058***	-0.041	0.051
	(0.07)	(0.55)	(0.86)	(0.07)	(0.32)	(0.33)
NumAnalyst	0.002	0.002	0.004	0.006	0.003	-0.004
	(0.14)	(0.26)	(0.19)	(0.12)	(0.61)	(0.54)
INST	**-0.054** **	-0.045	-0.06	-0.032	0.064	-0.044
	(0.04)	(0.15)	(0.28)	(0.67)	(0.47)	(0.70)
Pr>F	<0.01	<0.01	<0.01	<0.01	<0.01	0.04
Adj. R	0.1	0.09	0.09	0.08	0.12	0.06

This table provides the regression results for H5~H6 using the two proxies for accrual quality: abnormal total accruals (*AbnTA)* in Panel A and abnormal total current accruals (*AbnCA*) in Panel B. Test results for H5 (whether firms with lower accrual quality experience a more negative price reaction around the revelation date). Results for H6 (lower accrual quality firms are associated with more downward drift following the revelation of the bad news about the company's true financial condition) are under *CAR30* to *CAR180*. All the variables are described as earlier, except that they are measured one year prior to the year of the revelation of the bad news. *P-values* are in parenthesis. ***, **, and * indicates significance at 1%, 5%, and 10% level respectively.

Table 7: Effect of Institutional Investors at the Revelation Date

Panel A: Regression results using the first measure of accrual quality: *AbnTA* (n= 545)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.328	-0.404	-0.416	-0.38	-0.416	-0.446
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
AbnTA	**0.059***	**0.077***	0.036	0.002	-0.005	-0.035
	(0.10)	(0.07)	(0.44)	(0.97)	(0.92)	(0.52)
SIZE	**0.022*****	**0.026*****	**0.022*****	**0.016****	**0.021*****	**0.029*****
	(<0.01)	(<0.01)	(<0.01)	(0.03)	(<0.01)	(<0.01)
FCF	0.017	**0.083***	**0.118*****	**0.103***	**0.152*****	**0.138****
	(0.67)	(0.08)	(0.02)	(0.06)	(0.01)	(0.02)
MTB	-0.001	0.002	0.001	0.001	0.001	0.001
	(0.69)	(0.40)	(0.68)	(0.84)	(0.85)	(0.69)
SKEW	0.004	-0.008	-0.01	**-0.019****	**-0.018****	**-0.014***
	(0.49)	(0.24)	(0.17)	(0.02)	(0.03)	(0.10)
BETA	-0.018	-0.005	-0.003	-0.021	-0.013	0.004
	(0.11)	(0.72)	(0.84)	(0.20)	(0.44)	(0.80)
NumAnalyst	**0.002***	0.002	**0.004****	**0.004****	**0.004****	0.003
	(0.08)	(0.22)	(0.05)	(0.03)	(0.05)	(0.20)
INST	**-0.052***	**-0.055***	-0.031	-0.005	0.002	-0.041
	(0.06)	(0.10)	(0.39)	(0.90)	(0.96)	(0.33)
*AbnTA*INST*	-0.124	0.047	0.017	-0.033	-0.053	-0.06
	(0.29)	(0.74)	(0.91)	(0.84)	(0.76)	(0.74)
Pr>F	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Adj. R	0.11	0.1	0.09	0.08	0.09	0.08

Table 7-continued

Panel B: Regression results using the second measure of accrual quality: *AbnCA* (n= 545)

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1	*CAR30*	*CAR60*	*CAR90*	*CAR120*	*CAR180*
Intercept	-0.333	-0.405	-0.418	-0.293	-0.466	-0.587
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
AbnCA	-0.01	0.023	-0.013	-0.065	-0.076	-0.271
	(0.75)	(0.54)	(0.83)	(0.42)	(0.44)	(0.03)
SIZE	**0.023*****	**0.026*****	**0.022****	0.007	**0.033***	**0.059*****
	(<0.01)	(<0.01)	(0.04)	(0.65)	(0.07)	(0.01)
FCF	0.023	**0.082***	**0.188****	0.143	**0.183***	-0.033
	(0.55)	(0.08)	(0.02)	(0.16)	(0.06)	(0.84)
MTB	-0.001	0.002	0.004	0.001	-0.002	-0.001
	(0.80)	(0.33)	(0.36)	(0.86)	(0.72)	(0.85)
SKEW	0.003	-0.009	-0.018	**-0.033****	-0.021	0.003
	(0.58)	(0.20)	(0.12)	(0.02)	(0.22)	(0.89)
BETA	**-0.021***	-0.008	-0.004	**-0.058***	-0.042	0.049
	(0.07)	(0.55)	(0.86)	(0.07)	(0.31)	(0.35)
NumAnalyst	0.002	0.002	0.004	0.006	0.003	-0.004
	(0.13)	(0.26)	(0.20)	(0.12)	(0.61)	(0.55)
INST	**-0.048***	-0.045	-0.064	-0.028	0.079	-0.008
	(0.07)	(0.16)	(0.26)	(0.71)	(0.38)	(0.94)
*AbnCA*INST*	-0.11	0.005	0.081	-0.087	-0.292	-0.495
	(0.22)	(0.96)	(0.66)	(0.74)	(0.37)	(0.21)
Pr>F	<0.01	<0.01	<0.01	<0.01	<0.01	0.04
Adj. R	0.10	0.09	0.09	0.08	0.12	0.06

This table provides the regression result for H7~H8 using the two proxies for accrual quality: abnormal total accruals (*AbnTA*) in Panel A and abnormal total current accruals (*AbnCA*) in Panel B. Test results for H7 (whether investor sophistication mitigates the market reaction to lower accrual quality at the revelation date) are laid out under *CAR1*. Results for H8 (the association between accrual quality and post-revelation drift is stronger for firms with lower institutional holdings) are under CAR30 to CAR180. *LAQ*INST* is the interaction term: one of the two proxies of accrual quality (*LAQ*) is interacted with the percent of institutional equity holdings (*INST)*. *ControlVariable* are the control variables are measured similarly as described earlier, except that they are measured one year prior to the year of the revelation of the company's poor financial performance. *P-values* are in parenthesis. ***, **, and * indicates significance at 1%, 5%, and 10% level respectively.

Table 8: Additional analysis

Panel A: Relation between accrual quality and market reaction and effects of Institutional investors at announcement date and the following periods when independent directors are included in the regression (using *AbnTA* as proxy as accrual quality, n= 163).

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1		CAR30		CAR60		CAR90		CAR120		CAR180	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	-0.043	-0.038	-0.195	-0.191	-0.261	-0.253	-0.391	-0.382	-0.332	-0.325	-0.484	-0.478
	(0.44)	(0.49)	(0.04)	(0.05)	(0.02)	(0.03)	(0.01)	(0.02)	(0.06)	(0.07)	(0.03)	(0.04)
AbnTA	**-0.079***	**-0.077***	-0.066	-0.065	-0.137	-0.135	-0.086	-0.083	0.126	0.128	-0.036	-0.034
	(0.09)	(0.09)	(0.41)	(0.42)	(0.15)	(0.16)	(0.51)	(0.52)	(0.40)	(0.39)	(0.85)	(0.86)
SIZE	0.000	0.001	0.011	0.012	-0.001	0.001	0.021	0.023	0.019	0.021	0.026	0.027
	(1.00)	(0.88)	(0.30)	(0.28)	(0.94)	(0.96)	(0.25)	(0.22)	(0.35)	(0.32)	(0.32)	(0.30)
FCF	-0.048	-0.052	0.119	0.116	-0.178	-0.184	-0.155	-0.162	-0.409	-0.415	-0.345	-0.35
	(0.47)	(0.44)	(0.30)	(0.32)	(0.20)	(0.18)	(0.41)	(0.39)	(0.06)	(0.06)	(0.21)	(0.20)
MTB	0.003	0.003	0.006	0.006	0.006	0.006	0.003	0.003	0.000	0.000	-0.007	-0.006
	(0.22)	(0.21)	(0.14)	(0.14)	(0.21)	(0.20)	(0.61)	(0.60)	(0.98)	(0.97)	(0.49)	(0.49)
SKEW	-0.008	-0.009	-0.014	-0.014	-0.017	**-0.018***	**-0.03****	**-0.031****	-0.025	-0.025	-0.018	-0.018
	(0.13)	(0.11)	(0.13)	(0.13)	(0.12)	(0.10)	(0.04)	(0.04)	(0.14)	(0.14)	(0.41)	(0.39)
BETA	-0.009	-0.007	0.019	0.021	**0.083*****	**0.087*****	**0.112*****	**0.117*****	**0.096****	**0.099****	**0.100***	**0.103***
	(0.48)	(0.60)	(0.40)	(0.36)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(0.03)	(0.02)	(0.07)	(0.06)
NumAnalyst	0.001	0.001	-0.002	-0.002	0.002	0.002	0.001	0.000	0.001	0.001	0.000	0.000
	(0.71)	(0.70)	(0.42)	(0.42)	(0.38)	(0.38)	(0.89)	(0.90)	(0.86)	(0.86)	(0.94)	(0.94)
INST	0.053	0.032	**0.115***	0.101	**0.143***	0.107	0.113	0.078	0.146	0.115	0.267	0.24
	(0.20)	(0.46)	(0.10)	(0.18)	(0.09)	(0.23)	(0.32)	(0.52)	(0.27)	(0.41)	(0.11)	(0.18)
PID	-0.044	-0.05	-0.054	-0.059	0.056	0.045	0.013	0.003	-0.025	-0.035	0.049	0.041
	(0.30)	(0.24)	(0.46)	(0.43)	(0.52)	(0.61)	(0.91)	(0.98)	(0.85)	(0.80)	(0.78)	(0.82)
*AbnTA*INST*		0.306		0.214		0.525		0.526		0.453		0.395
		(0.15)		(0.56)		(0.23)		(0.38)		(0.51)		(0.65)

Pr>F	0.39	0.31	0.38	0.45	0.02	0.02	0.10	0.11	0.07	0.09	0.20	0.26
Adj.R	0.00	0.01	0.00	0.00	0.06	0.07	0.04	0.04	0.04	0.04	0.02	0.02

Table 8-continued

Panel B: Relation between accrual quality and market reaction and effects of Institutional investors at announcement date and the following periods when independent directors are included in the regression (using *AbnCA* as proxy for accrual quality, n= 163).

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1		CAR30		CAR60		CAR90		CAR120		CAR180	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	-0.043	-0.036	-0.195	-0.183	-0.261	-0.26	-0.39	-0.394	-0.333	-0.339	-0.484	-0.463
	(0.44)	(0.52)	(0.04)	(0.06)	(0.02)	(0.03)	(0.01)	(0.01)	(0.06)	(0.06)	(0.03)	(0.04)
AbnTCA	-0.039	-0.041	-0.057	-0.058	-0.081	-0.081	0.044	0.045	0.047	0.048	0.012	0.01
	(0.41)	(0.39)	(0.48)	(0.47)	(0.41)	(0.41)	(0.74)	(0.74)	(0.75)	(0.75)	(0.95)	(0.96)
SIZE	0.000	0.000	0.011	0.011	-0.001	-0.001	0.021	0.021	0.019	0.019	0.026	0.026
	(1.00)	(0.99)	(0.31)	(0.30)	(0.94)	(0.94)	(0.24)	(0.24)	(0.35)	(0.35)	(0.32)	(0.32)
FCF	-0.043	-0.042	0.118	0.119	-0.171	-0.171	-0.128	-0.128	**-0.422****	**-0.422****	-0.335	-0.334
	(0.53)	(0.53)	(0.31)	(0.31)	(0.22)	(0.22)	(0.50)	(0.50)	(0.05)	(0.05)	(0.22)	(0.22)
MTB	0.002	0.003	0.005	0.006	0.005	0.005	0.003	0.003	0.001	0.001	-0.007	-0.006
	(0.31)	(0.26)	(0.17)	(0.14)	(0.28)	(0.28)	(0.67)	(0.70)	(0.90)	(0.92)	(0.46)	(0.52)
SKEW	-0.008	-0.007	-0.013	-0.013	-0.016	-0.016	**-0.03****	**-0.031****	-0.026	-0.026	-0.018	-0.017
	(0.16)	(0.18)	(0.16)	(0.17)	(0.14)	(0.15)	(0.04)	(0.04)	(0.14)	(0.13)	(0.41)	(0.43)
BETA	-0.01	-0.012	0.019	0.016	**0.082*****	**0.082*****	**0.112*****	**0.113*****	**0.096****	**0.098****	**0.10***	**0.094***
	(0.46)	(0.37)	(0.41)	(0.49)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(0.03)	(0.02)	(0.07)	(0.08)
NumAnalyst	0.001	0.000	-0.002	-0.002	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.000

	(0.66)	(0.76)	(0.45)	(0.38)	(0.35)	(0.36)	(0.88)	(0.86)	(0.88)	(0.86)	(0.93)	(1.00)
INST	0.051	0.052	**0.118***	**0.118***	**0.142***	**0.142***	0.095	0.095	0.152	0.151	0.261	0.261
	(0.22)	(0.22)	(0.10)	(0.10)	(0.10)	(0.10)	(0.41)	(0.42)	(0.26)	(0.26)	(0.12)	(0.12)
PID	-0.05	-0.055	-0.061	-0.068	0.043	0.043	0.012	0.015	-0.016	-0.012	0.048	0.035
	(0.24)	(0.20)	(0.40)	(0.35)	(0.62)	(0.63)	(0.92)	(0.90)	(0.91)	(0.93)	(0.78)	(0.84)
*AbnCA*INST*		-0.271		-0.404		-0.03		0.172		0.218		-0.731
		(0.17)		(0.23)		(0.94)		(0.76)		(0.73)		(0.36)
Pr>F	0.61	0.52	0.40	0.37	0.04	0.06	0.11	0.15	0.08	0.12	0.20	0.22
Adj.R	-0.11	-0.01	0.00	0.01	0.06	0.05	0.03	0.03	0.04	0.03	0.02	0.02

Table 8-continued

Panel C: Relation between accrual quality and market reaction and effects of Institutional investors at revelation date and the following periods when independent directors are included in the regression (using *AbnTA* as proxy as accrual quality, n= 163).

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1		CAR30		CAR60		CAR90		CAR120		CAR180	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	-0.456	-0.455	-0.448	-0.45	-0.413	-0.414	-0.369	-0.37	-0.558	-0.558	-0.579	-0.578
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(0.02)	(0.02)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
AbnTA	0.078	0.084	**0.18****	**0.188****	0.119	0.121	0.055	0.059	0.026	0.026	-0.041	-0.043
	(0.17)	(0.14)	(0.02)	(0.02)	(0.17)	(0.17)	(0.57)	(0.55)	(0.80)	(0.80)	(0.72)	(0.7)
SIZE	**0.035**	**0.035*****	**0.027****	**0.027****	0.011	0.011	0.012	0.012	**0.031***	**0.031***	**0.033***	**0.033***
	(<0.01)	(<0.01)	(0.05)	(0.05)	(0.47)	(0.47)	(0.50)	(0.50)	(0.09)	(0.09)	(0.10)	(0.10)
FCF	0.079	0.08	0.138	0.14	**0.323****	**0.324****	**0.491*****	**0.492*****	**0.687*****	**0.687****	**0.697*****	**0.697****

	(0.47)	(0.46)	(0.31)	(0.30)	(0.04)	(0.04)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
MTB	0.000	0.000	0.004	0.004	0.003	0.003	0.000	0.000	-0.004	-0.004	-0.003	-0.003
	(0.92)	(0.93)	(0.38)	(0.40)	(0.59)	(0.60)	(0.96)	(0.96)	(0.57)	(0.57)	(0.65)	(0.66)
SKEW	0.006	0.007	**-0.029****	**-0.029****	**-0.048*****	**-0.048****	**-0.05****	**-0.049****	**-0.045****	**-0.045****	**-0.04****	**-0.04****
	(0.57)	(0.50)	(0.03)	(0.04)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(0.01)	(0.01)	(0.05)	(0.05)
BETA	-0.022	-0.024	-0.027	-0.028	-0.045	-0.045	-0.067	-0.067	-0.021	-0.02	-0.023	-0.023
	(0.29)	(0.25)	(0.33)	(0.31)	(0.14)	(0.14)	(0.05)	(0.05)	(0.57)	(0.58)	(0.56)	(0.57)
NumAnalyst	0.002	0.002	0.004	0.005	**0.007****	**0.007****	0.006	0.006	0.006	0.006	0.006	0.006
	(0.34)	(0.26)	(0.15)	(0.14)	(0.05)	(0.05)	(0.14)	(0.14)	(0.17)	(0.18)	(0.19)	(0.19)
INST	-0.029	-0.016	0.06	0.07	0.132	0.135	0.09	0.095	0.067	0.066	0.069	0.066
	(0.67)	(0.81)	(0.51)	(0.45)	(0.19)	(0.19)	(0.43)	(0.41)	(0.58)	(0.59)	(0.60)	(0.62)
PID	-0.02	-0.023	-0.122	-0.126	-0.109	-0.111	-0.091	-0.093	-0.087	-0.087	-0.076	-0.075
	(0.76)	(0.73)	(0.16)	(0.15)	(0.26)	(0.26)	(0.40)	(0.40)	(0.45)	(0.46)	(0.55)	(0.56)
*AbnTA*INST*		**-0.514**		-0.265		-0.083		-0.118		0.004		0.082
		(0.08)		(0.51)		(0.85)		(0.81)		(0.99)		(0.89)
Pr>F	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Adj.R	0.17	0.19	0.16	0.15	0.17	0.16	0.17	0.16	0.18	0.18	0.16	0.16

Table 8-continued

Panel D: Relation between accrual quality and market reaction and effects of Institutional investors at announcement date and the following periods when independent directors are included in the regression (using *AbnCA* as proxy for accrual quality, n= 163).

$$CAR = \alpha + \beta_1 * LAQ + \beta_2 * LAQ * INST + Control\ Variables$$

	CAR1		CAR30		CAR60		CAR90		CAR120		CAR180	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Intercept	-0.458	-0.429	-0.423	-0.406	-0.406	-0.396	-0.389	-0.398	-0.575	-0.573	-0.586	-0.571
	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(0.01)	(0.01)	(0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)

AbnTCA	0.016	0.004	0.12	0.115	0.038	0.035	-0.087	-0.083	-0.076	-0.077	-0.034	-0.039
	(0.79)	(0.94)	(0.18)	(0.20)	(0.70)	(0.73)	(0.44)	(0.46)	(0.52)	(0.52)	(0.79)	(0.76)
SIZE	**0.035*****	**0.034*****	**0.024***	**0.024***	0.01	0.009	0.012	0.012	**0.032***	**0.032***	**0.034***	**0.033***
	(<0.01)	(<0.01)	(0.09)	(0.09)	(0.53)	(0.55)	(0.49)	(0.48)	(0.09)	(0.09)	(0.09)	(0.10)
FCF	0.058	0.041	0.099	0.092	**0.293***	**0.289***	**0.464****	**0.468****	**0.67*****	**0.67*****	**0.705*****	**0.699*****
	(0.60)	(0.70)	(0.47)	(0.50)	(0.06)	(0.06)	(0.01)	(0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
MTB	0.001	0.001	0.004	0.004	0.003	0.003	0.000	0.000	-0.004	-0.004	-0.003	-0.003
	(0.88)	(0.78)	(0.43)	(0.39)	(0.61)	(0.59)	(0.97)	(0.94)	(0.58)	(0.58)	(0.66)	(0.7)
SKEW	0.005	0.004	**-0.029***	**-0.03****	**-0.049***	**-0.049***	**-0.051***	**-0.051***	**-0.046***	**-0.047****	**-0.04****	**-0.04****
	(0.63)	(0.71)	(0.04)	(0.03)	(<0.06)	(<0.07)	(<0.06)	(<0.06)	(0.07)	(0.04)	(0.05)	(0.05)
BETA	-0.023	-0.034	-0.035	-0.04	-0.047	-0.05	**-0.06***	-0.058	-0.015	-0.015	-0.021	-0.025
	(0.28)	(0.12)	(0.22)	(0.18)	(0.14)	(0.13)	(0.09)	(0.11)	(0.69)	(0.69)	(0.61)	(0.56)
NumAnalyst	0.002	0.002	0.005	0.005	**0.007****	**0.007****	0.006	0.005	0.005	0.005	0.006	0.006
	(0.35)	(0.28)	(0.12)	(0.11)	(0.05)	(0.05)	(0.15)	(0.16)	(0.19)	(0.19)	(0.20)	(0.19)
INST	-0.014	-0.008	0.069	0.069	0.146	0.146	0.114	0.115	0.084	0.084	0.068	0.068
	(0.84)	(0.90)	(0.45)	(0.45)	(0.16)	(0.16)	(0.32)	(0.32)	(0.49)	(0.49)	(0.61)	(0.61)
PID	-0.019	-0.039	-0.102	-0.115	-0.10	-0.107	-0.096	-0.088	-0.092	-0.093	-0.081	-0.093
	(0.78)	(0.56)	(0.24)	(0.20)	(0.31)	(0.29)	(0.38)	(0.43)	(0.43)	(0.43)	(0.52)	(0.48)
*AbnCA*INST*		**-0.528****		-0.254		-0.145		0.146		-0.021		-0.223
		(0.02)		(0.52)		(0.74)		(0.76)		(0.97)		(0.69)
Pr>F	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Adj.R	0.16	0.19	0.13	0.13	0.16	0.15	0.17	0.17	0.19	0.18	0.16	0.16

This table presents additional multivariate regression results by adding another control variable-percent of independent directors (*PID*) in the regressions. Panel A/B tests H1~H4: the relation between accrual quality and market reaction and effects of Institutional investors at announcement date and the following periods when independent directors are included in the regression (using *AbnTA* as proxy as accrual quality in Panel A and *AbnCA* in Panel B). Panel C/D tests H5~H8: the relation between accrual quality and market reaction and effects of Institutional investors at the revelation date and the following periods when independent directors are included in the regression (using *AbnTA* as proxy as accrual quality in Panel C and *AbnCA* in Panel D).The variables are described as earlier.

APPENDIX B

VARIABLE DEFINITION

Variable	Description	Definition
		Accrual quality measures
AbnTA	Abnormal total accruals	The difference between the lawsuit firm's total accruals and their normal accruals. (See also Total accruals and normal accruals in "Other variables" under definition).
AbnCA	Abnormal total current accruals	The difference between total current accruals and the lawsuit firms' normal current accruals. (See also Total current accruals and normal total accruals in "Other variables" under definition).
TA	Total accruals	The difference between EBXI (earnings before extraordinary items) and CFO (cash flow from operations)
TCA	Total current accruals	Total current accruals of the lawsuit firms calculated as ΔCA - ΔCL - $\Delta CASH$ + $\Delta STDEBT$; Also see other variables under definition for more details.
NormTA	Normal total accruals	The normal or expected total accruals of the lawsuit firms, and is the typical total accruals level of the industry. It is calculated as the industry-specific parameters estimated cross-sectionally one year prior to the year of the litigation using the Modified Jones Model times the lawsuit firms variables of the same time period. For more details, see section 3.3.1.
NormCA	Normal total current accruals	The normal or expected total current accruals of the lawsuit firms and is calculated similarly as the normal total accruals, but using the augmented DD (2002) model. For more details, see section 3.3.1.

		Control variables
SIZE	Size of the lawsuit firms	Size is measured as the log of total assets at the end of the year preceding the year of the lawsuit filing.
BETA	Beta of the lawsuit firms	Beta is measured as the slope coefficient from the market model using the value-weighted CRSP market return estimated over days (-250,-10) relative to the filing date of filing.
SKEW	Return skewness of the lawsuit firms	Skewness describes asymmetry from the normal distribution of the stock returns. It is calculated as the sum of the deviations from the mean return raised to the third power, divided by the sample size minus 1, times the standard deviation raised to the third power. Estimated over the same period as beta.
FCF	Free cash flow	Free cash flow (FCF) is estimated as in Lehn and Poulsen (1989), which is operating income before depreciation minus taxes, interest expenses, preferred dividends and ordinary dividends and then normalized by prior year total assets.
MTB	Market-to-book ratio	This ratio is calculated as the market value of equity divided by the book value of equity.
INST	% of institutional equity holdings	This variable is calculated as the percent of shares outstanding held by institutional investors.
PID	% of independent directors	The variable is calculated as the percent of independent board of directors.
NumAnalyst	Number of Analyst following	This variable is measured as the natural log of the number of analyst following.
		Other Variables
ΔREV		Revenues in year t less revenues in year t-1.

ΔREC	Receivables in year t less receivables in year t-1.
PPE	Gross property, plant, and equipment in year t.
EXBI	Earnings before extraordinary items.
CFO	Cash flow from operations.
ΔCA	Change in current assets from year t-1 to year t.
ΔCL	Change in current liability from year t-1 to year t.
$\Delta CASH$	$\Delta CASH$ is change in cash from year t-1 to year t. As in the first approach, year *t* refers to the year prior to the litigation year (e.g. if litigation year is 1996, then t = 1995). $\Delta STDEBT$ is change in short-term debt from year t-1 to year t.
$\Delta STDEBT$	Change in short-term debt from year t-1 to year t.
CAR	Cumulative Abnormal returns.
LAQ	Accrual quality represented by *AbnAcc* in the modified Jones model or *AbnCA* in Dechow and Dichev's model.

Note: Abnormal total accruals and abnormal total current accruals are estimated one year prior to the bad news revelation year or one year prior to the litigation announcement year. All the other variables are measured in the year of revelation or the year of litigation announcement, unless otherwise noted. Year *t* in the above definitions refers to the year prior to the revelation/litigation year.

APPENDIX C

INDUSTRY INFORMATION AND OTHER CHARACTERISTICS OF THE LAWSUIT FIRMS

Panel A: Industry Composition

73	Business Services	114	19.32%
28	Chemicals & Allied Prods Manufacturing	94	15.93%
36	Electronic & Other Electrical Equipment Manufacturing	74	12.54%
38	Measuring & Analyzing Instruments Manufacturers	52	8.81%
35	Industrial & Commercial Machinery Manufacturing	47	7.97%
59	Miscellaneous Retail	26	4.41%
80	Health Services	21	3.56%
48	Communications	16	2.71%
82	Educational Services	13	2.20%
13	Oil & Gas Extraction	11	1.86%
20	Food & Kindred Products Manufacturing	10	1.69%
37	Transportation Equipment Manufacturers	10	1.69%
56	Apparel & Accessory Stores	10	1.69%
50	Wholesale Trade - Durable Goods	8	1.36%
51	Wholesale Trade - Nondurable Goods	7	1.19%
58	Eating & Drinking Places	7	1.19%
87	Engineering & Accounting & Management Services	7	1.19%
23	Apparel & Other Finished Products - Manufacturing	6	1.02%
33	Primary Metal Industries Manufacturing	6	1.02%
54	Food Stores	6	1.02%
79	Amusement & Recreation Services	6	1.02%
<1%	Other(each representing less than 1% of one of the sample	39	6.61%
total		590	100.00%

Panel B: Days between different dates

	Mean	Median	Lower Quartile	Upper Quartile
Days of the Class Action Period	440	258	139	495
Days between the Revelation dates and the announcement dates	110	28	6	136

Days of the class action period: the number of days between the class action period beginning dates and the class action period ending dates; Days between the revelation dates and the announcement dates: the number of days between the date the revelation of the bad news was revealed to the public and the date the filing of the lawsuit was announced.

APPENDIX D

DESCRIPTION OF THE CODING OF DATA

1) Name: the name of the company being sued;

2) Ticker: the ticker of the company being sued;

3) Date: the date when the complaint was first filed.

4) Class action beginning date:

5) Class action ending date:

6) Settled or dismissed:

S: the case was settled (the settlement fund was either paid by the company or the company's insurer)

D: the case was dismissed (either the plaintiff voluntarily dismissed the case or the case was dismissed by the judge)

7) Type (of litigation)

0: false and misleading financial statement (e.g. financial health of the company, including false or misleading revenue and earnings numbers;

1: false and misleading statement (or news releases about company's product/sales/demand, etc.)

2: false and misleading information related to (2^{nd}) public offering (note: IPO is separately coded as IPO)

3: related to mergers and acquisitions;

4: related to restatement;

5: others;

8) Violation of SEA 34 mentioned:

The plaintiff alleged that the company violated SEA 1934 (Y: yes; N: no)

9) Damages/settlement fund:

0: the company paid all the damages;

1: the company's insurers paid some (can be substantial) but not all of the damages;

2: the company's insurers paid all of the damages;

REFERENCES

Ali, A and Kallapur S. 2001. Securities Price Consequences of the Private Securities Litigation Reform Act of 1995 and Related Events. *The Accounting Review* 76 (3): 431-460.

Balsam, S., Bartov,E., and Marquadt, C. 2002. Accruals management, investor sophistication, and equity valuation: Evidence from 10-Q Filings. *Journal of Accounting Research* 40: 987-1012.

Barberis, N., Shleifer, A., and Vishny, R.W. 1998. A model of investor sentiment. *Journal of Financial Economics* 49: 307-343.

Bartov, E., Radhakrishnan, S., and Krinsky, I. 2000. Investor Sophistication and Patterns in Stock Returns after Earnings Announcements. *The Accounting Review* 75(1): 43-63.

Bauer, R. and Braun, R. 2010. Long-term Performance of Distressed Firms: the Role of Class-Action Lawsuits. Network for Studies on Pensions, Aging and Retirement. Discussion Paper 01/2010-007.

Beneish, Messod and Mark E. Vargus. 2002. Insider Trading, Accrual quality, and Accrual Mispricing. *The Accounting Review* 77 (4): 755-791.

Becker, C. L., DeFond, M.L., Jiambalvo, J. and Subramanyam, K.R., 1998, The Effect of Audit Quality on Earnings Management, *Contemporary Accounting Research* 15, 1-24.

Bhagat, S., Bizjak, J., and Coles J.L. 1998. The shareholder wealth implications of corporate lawsuits. *Financial Management* 27: *5-27.*

Caskey, J. 2012**.** The Pricing Effects of Securities Class Action Lawsuits and Litigation Insurance. Working Paper. The University of Austin, Texas.

Chalmers, K, Naiker, V and Navissi, F. 2012. Accrual quality and Rule 10b-5 Securities Class Action Lawsuits. *Journal of Accounting and Public Policy* 31: 22-43.

Chen and Loh. 2006. An Examination of Private Shareholder Litigation that Alleges Accounting Restatement. Working Paper, Sanda University of China, Rider University.

Collins, D.W. and Hribar, P. 2002. Errors in Estimating Accruals: Implications for Empirical Research. *Journal of Accounting Research* 40 (1):105-134.

Collins, D.W., Gong, G; Hribar, P. 2003. Investor Sophistication and the Mispricing of Accruals. *Review of Accounting Studies* 8: 251-276.

Dechow, P. M., Sloan, R.G., and Sweeney, A. P. 1996. Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC. *Contemporary Accounting Research* 13: 1-36.

Dechow, P., and Dichev, I. 2002. The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review* 77 (Supplement): 35–59.

DeFond, M.L., and Park, C.W, 2001. The Reversal of Abnormal Accruals and the Market Valuation of Earnings Surprises. *The Accounting Review* 76 (3): 375-404.

DellaVigna, S. and Pollet, J. 2009. Investor Inattention and Friday Earnings Announcements. *Journal of Finance* 64: 709-749.

DuCharme, L. L., Malatesta, P. H., and Sefcik, S. E. 1999. Earnings Management, Stock Issues, and Shareholder Lawsuits. Working Paper, University of Washington School of Business.

Ecker, F., J. Francis, P. Olsson, and Schipper, K. 2005. Comparing Total and Current Accruals Qquality. Working paper, Duke University.

Ferris, S., and Pritchard, A. 2001. Stock Price Reactions to Securities Fraud Class Actions under the Private Securities Litigation Reform Act. *Michigan Law and Economics Research Paper* 01-009.

Francis, J., LaFond,R., Olsson, P., and Schipper, K. 2005. The market pricing of accruals quality. *Journal of Accounting and Economics* 39 (2): 295-327.

_____, 2007. Information Uncertainty and Post-Earnings Announcement Drift. *Journal of Business Finance and Accounting* 34 (3-4): 403-433.

Francis, J., Philbrick, D., and Schipper, K. 1994a. Shareholder Litigation and Corporate Disclosures. *Journal of Accounting Research* 32: 137-163.

_____. 1994b. Determinants and Outcomes in Class Action Securities Litigation.Working Paper, the University of Chicago.

Gande, A., Lewis, C. 2009. Shareholder initiated class action lawsuits: shareholder wealth effects and industry spillovers. *Journal of Financial and Quantitative Analysis* 44: 823-850.

Gazzar-EI, S. M. 1998. Predisclosure Information and Institutional Ownership: A Cross-Sectional Examination of Market Revaluations During Earnings Announcement Periods. *The Accounting Review* (January): 119–129.

Griffin, P.A., Grundfest, J.A., and Perino, M.A. 2004. Stock Price Response to News of Securities Fraud Litigation: An Analysis of Sequential and Conditional Information. *Abacus* 40(1): 21-48.

Grimm, S.D. 2009. The Role of Accounting Quality in Securities Class Action Lawsuits. Dissertation, the University of St. Thomas.

Heninger, W. G. 2001. The Association between Auditor Litigation and Abnormal Accruals. *The Accounting Review* 76: 111-126.

Hirshleifer, D., K. Hou, S. H. Teoh, and Y. Zhang. 2004. Do Investors Overvalue Firms with Bloated Balance Sheets? *Journal of Accounting and Economics* 38 (1-3): 297-331.

Hirshleifer, D., Myers, J.N., Myers, L.A. and Teoh, S.H. 2009. Do Investors Cause Post-Earnings Announcement Drift? Direct Evidence from Personal Trades. Working Paper. The Paul Merage School of Business, University of California, Irvine and Mays Business School, Texas A&M University.

Jiambalvo, J., Rajgopal, S. and Venkatachalam, M. 2002 Institutional Ownership and the Extent to which Stock Prices Reflect Future Earnings. *Contemporary Accounting Research* 19(1): 117-145.

Jones, C. L., and Weingram, S. E. 1996a. The Determinants of 10b-5 Litigation Risk. Working Paper No. 118, John M. Olin Program in Law and Economics, Stanford Law School.

Johnson, M., Kasznik, R., and Nelson, K. 2000. Shareholder Wealth Effects of the Private Securities Litigation Reform Act of 1995. *Review of Accounting Studies* 5(3): 217-233.

Kellogg, R. L. 1984. Accounting Activities, Security Prices, and Class Action Lawsuits. *Journal of Accounting and Economics* 6: 497-598.

Lehn, K., and Poulsen, A. 1989. Free Cash Flow and Stockholder Gains in Going Private Transactions. *The Journal of Finance* 44(3): 771-787.

Lu, Y. 2003. Earnings management and securities litigation. Doctoral dissertation, Graduate School of Business, Stanford University.

Marquardt, C. and Wiedman C. 2004. How are Earnings Managed? An Examination of Specific Accruals. *Contemporary Accounting Research* 21 (2): 461-491.

Merton, R. C. 1987. A Simple Model of Capital Market Equilibrium with Incomplete Information. *The Journal of Finance* 42(3): 483-510.

Palmrose Z., Richardson, V.J., and Scholz, S.W. 2004. Determinants of Market Reactions to Restatement Announcements. *Journal of Accounting and Economics* 37 (1): 59-89.

Rangon, S. 1998. Earnings Management and the Performance of Seasoned Equity Offerings. *Journal of Financial Economics* 50 (1): 101-122.

Richardson, S.A., Sloan, R.G., Soliman, M.T., and Tuna, I.. 2005. Accrual Reliability, Earnings Persistence and Stock Prices. *Journal of Accounting and Economics* 39: 437-485.

Schipper, K. and L. Vincent. 2003. Accrual quality. *Accounting Horizons* 17 (Supplement).

Shanthikumar, D. 2004. Small and Large Trades Around Earnings Announcements: Does Trading Behavior Explain Post-Earnings-Announcement Drift? Working paper, Harvard University.

Shleifer, A. and R. Vishny. 1997. A Survey of Corporate Governance. *Journal of Finance* 52: 737-783.

Tao, S. 2007. Trader Composition, Price Efficiency, and the Cross-Section of Stock Returns. Working paper, the University of Austin, Texas.

Teoh, S. H., Welch, I and Wong, T.J. 1998a. Earnings Management and the Long-Run Market Performance of Initial Public Offerings. *Journal of Finance* 53(6):1935-1974.

_____. 1998b. Earnings Management and the Underperformance of Seasoned Equity Offerings. *Journal of Financial Economics* 50 (1): 63-99.

Trueman, B. 1997. Managerial Disclosures and Shareholder Litigation. *Review of Accounting Studies* 2(2): 181-199.

Xie, H. 2001. The Mispricing of Abnormal Accruals. *The Accounting Review* 76(3): 357-373.

Zhang, X.F. 2006. Information Uncertainty and Stock Returns. *The Journal of Finance* 61(1): 105-136.

BIOGRAPHICAL SKETCH

Ping was born in Huangshi (meaning "Yellow Stone"), a medium-sized city along the Yangtze River in central China. She earned her Bachelor's degree in English Language and Literature from Central China Normal University in Wuhan and a Master's degree in Linguistics from Zhejiang University. After several years of teaching in Zhejiang University, Ping came to USA in 2003 to study business administration. She got her MBA degree from Clarion University in Pennsylvania in 2005 and began the pursuit of her Ph.D degree in Accounting at Florida State University in 2008. Ping's main areas of research interest include: Corporate Governance, Security Market Anomalies, Earnings Quality, Accounting Information and Valuation, Value Creation and Stock Performance, Fraud and Forensic accounting. In her spare time, she enjoys reading, singing, meditation and travelling.