FINANCIAL MISREPORTING PERIOD AND INVESTOR REACTION TO SECURITIES LITIGATION

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ABSTRACT: This study investigates the relation between financial misreporting period and investor reaction to securities litigation announcement. A sample of 301 securities lawsuits between 1996 and 2005 is used in the regression of investor reaction around securities litigation on financial misreporting period and other variables. A negative relation is reported between financial misreporting period and the investor reaction to securities litigation announcement, which suggests that the longer the concealment period, the more the market perceives a securities fraud lawsuit as being meritorious. Our findings imply that the market losses associated with securities litigation can be mitigated if the misstating firms release negative earnings-related news in a timely manner. The results of this study contribute to our understanding of the investor reaction to securities litigation and also provide support for regulation that enhances the timeliness of material event disclosures.

Key words: Disclosure, Investor Reaction, Misreporting, Securities Litigation.

INTRODUCTION

Since the Private Securities Litigation Reform Act (PSLRA) was enacted in 1995, a majority of securities lawsuits have been centered on accounting allegations (Cornerstone Research, 2008).[1] Many of the accounting-related securities lawsuits were triggered by accounting irregularities and frauds, which resulted in settlements and market losses running into billions of dollars in some cases (Simmons and Ryan, 2008).

The legal system routinely levies large monetary penalties on sued firms but the legal penalties are substantially lower than the penalties imposed by the market (Karpoff et al., 2008). Simmons and Ryan (2008) document total lawsuit settlements in 2007 to be $6.962 billion dollars while Cornerstone (2008) reports that market losses associated with securities lawsuits were approximately $669 billion in 2007.

According to Griffin et al (2004) and Gande and Lewis (2009), the investor reaction around the announcement of a securities lawsuit is an important component of lawsuit-related market losses and the economic effect of a lawsuit. Studies such as Ferris and Pritchard (2001) report an average three-day excess return of -3.47 percent while Griffin et al (2004) report a mean three-day excess return of -7.2 percent around the announcement of securities lawsuit induced by accounting misstatement.

Investor reaction to securities lawsuit triggered by accounting misstatement is perceived as deterring financial misreporting and enhancing the quality of financial reports (Fuerman, 2012). The literature provides some evidence of a negative valuation effect around accounting-related

securities lawsuit announcement after the PSLRA but there is limited evidence on the factors that explain the cross-sectional variation in the announcement returns (Gande and Lewis, 2009).

The financial misreporting period may influence investor perception of the severity of negative earnings-related news, which in turn could impact the market's perception of investor losses associated with a lawsuit. When a firm delays the disclosure of negative earnings-related news, its stock price is inflated over the concealment period and on the revelation of the true financial condition of the firm, shareholders could incur substantial losses (Bardos, Golec and Harding, 2011). Management of a sued firm has a duty to promptly disclose material adverse information and failure to do so in a timely manner may be perceived as an indication of intent to perpetrate fraud.[2] Following the passage of the PSLRA, securities lawsuits are required to show intent to commit fraud or scienter to avoid dismissal, thus financial misreporting period could influence the perceived merit of a lawsuit as well as the investor perception of shareholder losses.

Using a sample of 301 accounting-related securities lawsuit filings between 1996 and 2005, this study examines the relation between financial misreporting period and investor reaction to accounting-related litigation announcement. The empirical results indicate a negative relation between financial misreporting period and investor reaction to litigation announcement.

This study adds to our knowledge of factors that explain the cross-sectional variation in investor reaction to securities lawsuit. The study complements and extends the literature on the reputational consequences of financial misreporting such as Alexander (1999) and Fich and Shivdasani (2007). The findings of this study suggest that the longer the concealment period, the more the market perceives a securities fraud lawsuit as being meritorious. Accordingly, the results of this study provide support for regulation that enhances the timeliness of material event disclosures.

The remainder of this study is organized as follows. In section 2, we review related literature and develop the hypothesis. Section 3 describes the research design. Section 4 describes the empirical results and Section 5 presents the summary and conclusion.

LITERATURE REVIEW AND HYPOTHESIS

This section reviews literature related to financial misreporting period and investor reaction to accounting-related lawsuit announcements. According to McTier and Wald (2011), a securities lawsuit reflects an agency problem between a firm's managers and its owners and the threat of a lawsuit filing as well as the market reaction to the lawsuit constrains financial misreporting by firms. Generally, accounting-related lawsuits allege losses to purchasers of the defendant firm's stock as a result of a SEC Rule 10b-5 violation and the lawsuit filing indicates the period over which the alleged intentional misreporting occurred.[3] The following securities lawsuit filing against Universal Health Services, Inc. is an example:

"On March 22, 2004, a securities lawsuit was brought on behalf of purchasers of the stock of Universal Health Services, Inc. The complaint alleges that the Company and certain of its officers and directors violated sections 10(b) of the Securities Exchange Act of 1934, and Rule 10b-5 promulgated thereunder, by issuing a series of material misrepresentations to the market. Specifically, the complaint alleges that starting on July 21, 2003 and continuing through February 27, 2004, defendants issued public statements about the Company, its financial performance and future business prospects that omitted to disclose certain material adverse facts, thereby inflating the price of UHS stock. Further, the complaint alleges that on March 1, 2004, before the markets opened, defendants shocked investors by revealing the material adverse information. On this news, the price of UHS shares fell $9.05, or 17%, to $44.88."

Given that managers have access to negative earnings-related news about the firm and they determine when to release such information (Skinner, 1994; Field, Lowry and Shu, 2005), a longer financial misreporting period may be perceived by the market as strengthening the

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inference of fraud thereby increasing the likelihood of lawsuit settlement, which is consistent with the requirements of the PSLRA (Martin and Narz, 2005; Amoah and Tang, 2010).[4] A longer misreporting period implies that some investors relied on inflated earnings over an extended period and may have incurred larger losses, which could result in higher claims by investors upon revelation of the adverse earnings-related news.

According to prior studies, a longer financial misreporting period may also be perceived by the market as increasing the expected costs associated with the securities lawsuit. Gande and Lewis (2009) argue that investor reaction to lawsuits is based on the market's estimation and capitalization of the settlement amount and other lawsuit-related costs while Badertscher and Burks (2012) note that financial misreporting period is associated with market losses because it is the period during which purchasers of the firm's stock were misled. Field, Lowry and Shu (2005) argue that early disclosure of negative news to the market reduces the period during which purchasers of the misstating firm's stock incur damages, which in turn results in lower litigation costs. Consistent with the view that the misreporting period is associated with lawsuit costs, Dutta and Nelson (1997) find that there is a higher expected legal cost when a firm fails to disclose negative information in a timely manner. Thus, it is expected that the market will react more negatively to a lawsuit announcement when financial misreporting period is longer and the hypothesis is as follows:

HA: Financial misreporting period is negatively associated with investor reaction to accounting-related lawsuit announcement.

RESEARCH DESIGN

The hypothesized negative association between financial misreporting period and the market reaction to lawsuit announcement is tested by a regression of the 3-day cumulative abnormal returns around the litigation announcement on financial misreporting period and other variables. The regression model is presented as follows:

$$LitigCAR_{(-1,+1)} = \alpha_0 + \beta_1 MisreportPeriod + \beta_2 AbInstrad + \beta_3 EqtyIss +$$

$$\beta_4 SEC + Controls + \varepsilon$$

$LitigCAR_{(-1, +1)}$ is the cumulative abnormal returns over the three-day $(-1, +1)$ interval beginning on the day prior to the litigation announcement date.

MisreportPeriod is the number of days the financial misreporting occurred.

AbInstrad is included in the model based on the results from prior literature which suggest that there is abnormal insider trading by firms that settle securities lawsuits. Billings (2008) reports a positive relation between abnormal insider trading prior to revelation of negative earnings-related news and settlement amount. AbInstrad is a binary variable which takes the value 1, if there is an allegation of abnormal selling of shares by insiders during the financial misreporting period, 0, otherwise.

EqtyIss is an indicator variable which takes the value 1, if the lawsuit is equity-issue related, 0, otherwise. EqtyIss is included in the model because the issuance of equity could be considered by the market as a strong inference of intentional misreporting (DuCharme, Malatesta and Sefcik, 2004).

SEC is included in the model and it is equal to 1, if the securities lawsuit filing indicates an investigation of fraud or accounting irregularity by the SEC, 0, otherwise. Consistent with Bardos, Golec and Harding (2011), it is expected that SEC investigation will support a credible allegation of fraud and reduce the likelihood of dismissal of a lawsuit filing in the post-PSLRA period.

Restate is equal to 1, if the securities lawsuit filing indicates that the misreporting resulted in a restatement, 0, otherwise. Restate is included in the model to control for the seriousness of the

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financial misreporting. Johnson et al. (2007) document a positive relation between restatement and probability of securities lawsuit.

Leverage (Lev) is included in the model as a control variable based on the expectation that highly leveraged firms are more likely to be in financial distress and have cash flow problems, which implies that they may have a lower ability to pay damages to settle lawsuits (Simmons and Ryan, 2009). Lev is the ratio of total liabilities to total assets and a positive association is expected between Lev and 3-day cumulative abnormal returns around the lawsuit announcement date.

Size is also included in the model as larger firms may be perceived by the market as having a greater capacity to pay settlement amounts (Gande and Lewis, 2009; Billings, 2008; Simmons and Ryan, 2009). Similar to Gande and Lewis (2009) and Billings (2008), Size is the log of market value of equity.

Finally, the ratio of book-to-market value of equity (BM) is included in the single-factor model as a control variable while binary variables are included in the model to control for the effect of particular industries on litigation risk. The binary variables control for Financial Industry (SIC codes 6000-6999), Technology Industry (SIC codes 2833-2836, 3570-3577, 3600-3674, 7371-7379 or 8731-8734), Regulated Industry (SIC codes 4000-4999), and Retail Industry (SIC codes 5200-5961). According to Gande and Lewis (2009), Financial Industry and Technology Industry firms have a higher litigation risk; Regulated Industry firms have a lower litigation risk while Retail Industry firms may have a higher or lower litigation risk.

Sample Selection: Accounting related securities lawsuits between 1996 and 2005 are identified from the Stanford Securities Class Action Clearinghouse (SSCAC) database. The use of data covering the period 1996 to 2005 provides evidence of the relation between financial misreporting period and investor reaction to litigation in the period after the enactment of the PSLRA but prior to the credit crisis. Similar to Chalmers et al. (2012), accounts such as earnings, revenues, expenses and assets are alleged to have been misrepresented in the sample. The final sample of 301 litigation firms is based on the requirement that firms in the final sample have the necessary CRSP, Compustat, and securities lawsuit data. Excluded from the sample are lawsuit filings that coincide with earnings announcements, restatement announcements, earnings forecasts and other confounding events.[5]

Litigation filing date and other lawsuit data are from the SSCAC database. As Karpoff et al. (2013) find some errors in the data from the various databases used in litigation research; the lawsuit data from the SSCAC is verified and supplemented using Lexis Nexis. Financial misreporting period data is from Lexis Nexis and SEC filings. Specifically, the beginning date of the financial misreporting and the date the misreporting ends are obtained by searching through the SEC filings of each sued firm and Lexis Nexis.

EMPIRICAL RESULTS

Table 1, Panel A presents descriptive statistics of the continuous variables for 301 sample firms. Mean (median) of MisreportPeriod is 409.9 (296) days and mean (median) of Lev (ratio of total liabilities to total assets) is 0.5569 (0.5605). Mean (median) of log of market value of equity (Size) is 4.9911 (4.5535). The ratio of book-to-market value of equity (BM) has a mean (median) of 0.0480 (0.0010).

Panel A: Continuous Variables (N=301)

Variable	Mean	Median	Std. dev.
MisreportPeriod	409.9169	296.0	361.4211
Lev (TL/TA)	0.5569	0.5605	0.2492
Size (LnMV)	4.9911	4.5535	3.6336
BM	0.0480	0.0010	0.1429

Table 1, Panel B reports the frequency of the binary variables. Out of a total of 301 lawsuits, 94 lawsuits (31.23 percent) were equity-issue related and 137 lawsuits included abnormal insider trading allegations (42.52 percent). Finally, 39 lawsuits (12.96 percent) reported investigation of fraud or irregularity by the SEC and 81 lawsuits (26.9 percent) indicated that the misreporting resulted in a restatement.

Panel B: Binary Variables (N=301)

	Number of firms	Percentage	Sample Size N
EqtyIss	94	31.23	301
AbInstrad	137	45.52	301
SEC	39	12.96	301
Restate	81	26.9	301

Table 2 presents the distribution of lawsuits across the sample period (1996-2005). The distribution of lawsuits across the sample period is not significantly different from the distribution of lawsuits reported in the Stanford database. Similar to the distribution of lawsuits in the Stanford database, the lowest number of lawsuits (15) recorded in the sample period was in 1996.

There was a steady increase in the number of lawsuits from 1996 with the highest number (41) of lawsuits recorded in 2002. After 2002, there was a steady decline in lawsuits to 21 filings in 2005. The distribution of lawsuits in the Stanford database over the sample period follows a similar trend with the highest number of lawsuits recorded in 2004 and thereafter steadily declining. The number of class action lawsuits in 1996 is the lowest in the sample, which may be due to a transitory effect following passage of the PSLRA in December 1995.

Table 2: Distribution of shareholder litigation by fiscal year (N=301)

Year	996	997	998	999	000	001	002	003	004	005
Securities Lawsuits	5	8	3	0	0	0	1	9	4	1

Event Study: Table 3 presents the cumulative abnormal returns around the litigation announcement date for three event windows: (-1, +1), (-10, +1) and (-5, +1). Event study methodology is used to estimate the cumulative abnormal returns. Following Brown and Warner

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(1985), the cumulative abnormal returns are calculated using a single-factor market model, the CRSP equally-weighted market index, and a 255-day estimation period which ends 45 days prior to the lawsuit announcement date, day=0.

Table 3: Cumulative Abnormal Returns (N=301)

LitigCAR	Mean	Median	Std. Dev.
[-1,+1]	-0.0441[a]	-0.0162[a]	0.1554
	(<0.0001)	(<0.0001)	
[-10,+1]	-0.1673	-0.1054	0.2337
	(<0.0001)	(<0.0001)	
[-5,+1]	-0.1138	-0.0633	0.2118
	(<.0001)	(<.0001)	

In the first column of Table 3, the mean abnormal returns are reported. The second column presents the median abnormal returns, and the third column shows the standard deviations. The 3-day cumulative abnormal returns around the litigation date, LitigCAR $_{(-1, +1)}$, has a mean of -4.41 percent (p<0.0001), a median of -1.62 percent (p<0.0001) and standard deviation of 15.54 percent. Ferris and Pritchard (2001) report a mean LitigCAR $_{(-1, +1)}$ of -3.47 percent for 85 lawsuits over the period 1995-1999. Griffin, Grundfest and Perino (2004) document a significantly higher mean LitigCAR $_{(-1, 1)}$ of -7.2 percent based on 2,194 lawsuits between 1990 and 2002.

Cumulative abnormal returns are also reported for (-10, +1) and (-5, +1) event windows relative to day 0, the lawsuit filing date. For LitigCAR $_{(-10, +1)}$, the mean is -16.73 percent (p<0.0001), while the median and standard deviation are respectively, -10.54 percent and 23.37 percent. LitigCAR $_{(-5, +1)}$, has a mean of -11.38 percent, a median of -6.33 percent and standard deviation of 21.18 percent.

Table 4 reports the results of the regression of the 3-day investor reaction to litigation announcement, LitigCAR $_{(-1, +1)}$, on financial misreporting period and other variables. P-values are shown below the parameter estimates in parentheses. Statistical significance at the 1 and 5% level is denoted by (respectively) [a] and [b]. We find that the coefficient on MisreportPeriod is negative and significant (p<0.01), supporting the hypothesized negative relation between financial misreporting period and the market reaction to litigation announcement. Multicollinearity is not a problem as variance inflation factors for the regression model are between 1.0064 and 1.2246. In untabulated results for the regression model without the test variable (Misreporting period), the R-square is 0.0668 while the adjusted R-square is 0.0276, indicating a significant improvement of the model with the addition of the test variable.

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Table 4: Regression of 3-day Investor Reaction to Litigation Announcement

Variable	Coefficient (p-value)
Intercept	-0.0413
	(0.2232)
MisreportPeriod	-0.0001[a]
	(0.0006)
AbInstrad	0.0082
	(0.6747)
SEC	-0.0229
	(0.4490)
EqtyIss	-0.0382
	(0.0523)
Restate	-0.0210
	(0.3700)
Lev	0.1027[b]
	(0.0184)
Size	-0.0040
	(0.1665)
BM	-0.0185
	(0.7919)
Technology	0.0181
	(0.4339)
Regulated	0.0329
	(0.2948)
Retail	-0.0090
	(0.8014)
Financial	0.0119
	(0.7166)
N	301
R-Square	0.1077
Adj. R-Square	0.0667
F-Value	2.63[a]
(P-Value)	(0.0025)

Sensitivity Analysis: Table 5 shows the results of the regression of investor reaction to litigation announcement on financial misreporting period and other variables using a longer event window: (-5, +1). The coefficient on MisreportPeriod is significant and negative as before showing that the prior result is robust. There is also evidence of significantly negative coefficients for equity-issue related lawsuits (EquityIss) and firm size (Size). The variance inflation factors for the regression model are between 1.0064 and 1.2246, indicating that multicollinearity is not an issue.

Table 5: Sensitivity Analysis

Variable	Coefficient (p-value)
Intercept	-0.1366[a]
	(0.0034)
MisreportPeriod	-0.0001[a]
	(0.0033)
AbInstrad	0.0491
	(0.0654)
SEC	-0.0615
	(0.1373)
EqtyIss	-0.0543[b]
	(0.0433)
Restate	-0.0334
	(0.2966)
Lev	0.1429[b]
	(0.0163)
Size	-0.0027[b]
	(0.0488)
BM	0.0831
	(0.3856)
Technology	0.0264
	(0.4052)
Regulated	0.0137
	(0.7491)
Retail	0.0394
	(0.4210)
Financial	0.0033
	(0.9400)
N	301
R-Square	0.1175
Adj. R-Square	0.0770
F-Value	2.90[a]
(P-value)	(0.0009)

SUMMARY AND CONCLUSION

This study investigates the relation between financial misreporting period and investor reaction to litigation announcement using a sample of 301 lawsuits over the period 1996-2005. The empirical results indicate a negative association between financial misreporting period and investor reaction to litigation announcement. The findings suggest that the longer the financial misreporting period, the more the market perceives a securities fraud lawsuit as being meritorious.

Accordingly, the results of this study contribute to our understanding of the market reaction to securities lawsuit. The results also provide support for regulation that enhances the timeliness of material event disclosures. Finally, the results complement and extend the literature on reputational consequences of financial misreporting such as Skinner (1994), Alexander (1999) and Fich and Shivdasani (2007). To provide further evidence on the relation between misreporting period and lawsuit consequences, future research could investigate the influence of financial misreporting period on the reputation of sued firms' directors.

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REFERENCES

Alexander, C. R. (1999). On the nature of the reputational penalty for corporate crime: Evidence. Journal of Law and Economics, 42 (1), 489-526.

Amoah, N. Y., & Tang, A. P. (2010). Board, audit committee and restatement-induced class action lawsuits. Advances in Accounting, 26 (2), 155–169.

Badertscher, B. & Burks, J. A. (2011). Accounting restatements and the timeliness of disclosures. Accounting Horizons, 25 (4), 609-629.

Bardos, K. S., J. Golec, & Harding, J. P. (2011). Do investors see through mistakes in reported earnings, Journal of Financial and Quantitative Analysis, 46 (6): 1917-1946.

Billings, M. B. (2008). Disclosure timeliness, insider trading opportunities and litigation consequences. New York University Working Paper.

Brown, S., & Warner, J. (1985). Using daily stock returns: The case of event studies. Journal of Financial Economics, 14, 3-31. 2008.

Chalmers, K., Naiker, V., & Navissi, F. (2012). Earnings quality and Rule 10b-5 securities class action lawsuits. Journal of Accounting & Public Policy, 31(1), 22-43.

Securities class action case filings: 2007: A year in review. Cornerstone Research. (2008). Washington, DC 20006.

DuCharme, L., Malatesta, P., & Sefcik, S. (2004). Earnings management, stock issues, and shareholder lawsuits. Journal of Financial Economics, 71, 27–49.

Dutta, S., & Nelson, J. J. (1997). Shareholder litigation and market information: Effects of the endorsement of the Fraud-on-the-Market Doctrine on market information. University of California, Berkeley Working Paper.

Ferris, S. P., & Pritchard, A. C. (2001). Stock price reactions to securities fraud class actions under the Private Securities Litigation Reform Act, John M. Olin Center for Law and Economics Research Paper 01-009.

Fich, E. M., & Shivdasani, A. (2007). Financial fraud, director reputation, and shareholder wealth. Journal of Financial Economics, 86, 306–336.

Field, L., Lowry, M., Shu, S. (2005). Does disclosure deter or trigger litigation? Journal of Accounting and Economics, 39 (3), 487-507.

Fuerman, R. D. (2012). Auditors and the post-2002 litigation environment. Research in Accounting Regulation, 24, 40-44.

Gande, A., & Lewis, C. M. (2009). Shareholder-initiated class action lawsuits: Shareholder wealth effects and industry spillovers. Journal of Financial and Quantitative Analysis, 44 (4), 823-850.

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Griffin, P. A., Grundfest, J. A., & Perino, M. A. (2004). Stock price response to news of securities litigation: An analysis of sequential and conditional information. Abacus, 40 (1), 21-48.

Johnson, M. F., Kasznik, R., & Nelson, K. (2000). Shareholder wealth effects of the Private Securities Litigation Reform Act of 1995. Review of Accounting Studies, 5 (3), 217–233.

Johnson, M. F., Nelson, K., & Pritchard, A. (2007). Do the merits matter more? Class actions under the Private Securities Litigation Reform Act. Journal of Law, Economics & Organization, 23, 627–652.

Karpoff, J. M., Lee, S. D., & Martin, G. S. (2008). The cost to firms of cooking the books. Journal of Financial and Quantitative Analysis, 43 (3), 581–612.

Karpoff, J. M., Koester, A., Lee, D. S. & Martin, G. S. (2013). Database challenges in financial misconduct research. Georgetown McDonough School of Business Research Paper No. 2012-15. Available at SSRN: http://ssrn.com/abstract=2112569.

Martin, J. W., & Narz, M. (2005). Federal securities litigation update. Research in Accounting Regulation, 18, 53–68.

McTier, B. C., & Wald, J. K. (2011). The causes and consequences of securities class action litigation. Journal of Corporate Finance, 17 (3), 649–665.

Simmons, L. E., & Ryan, E. M. (2008). Securities class action settlements: 2007 review and analysis. Cornerstone Research.

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

Endnotes

1. The United States Congress enacted the Private Securities Litigation Reform Act (PSLRA) in December 1995. The PSLRA was passed with the intent of limiting frivolous securities lawsuits. In 2002 (2006), 82 percent (92 percent) of securities lawsuits alleged misrepresentation in financial documents and 58 percent (68 percent) contained allegations of specific accounting irregularities.

2. Public companies are required to provide timely information about material events to the market through Form 8-K filings.

3. SEC Rule 10b-5 prohibits actions or omissions that result in fraud in relation to the purchase or sale of the security of an issuing firm.

4. The PSLRA raised pleading standards for securities lawsuits and increased the likelihood that lawsuits that lack merit would be dismissed (Johnson, Kasznik and Nelson, 2000; Johnson, Nelson and Pritchard, 2007). Another heightened pleading requirement in the PSLRA for securities lawsuits is that the plaintiff shall have the burden of proving that the act or omission of the defendant caused the loss for which the plaintiff seeks to recover damages.

5. Lawsuit filings are dropped from the sample if the earnings announcement, restatement announcement, earnings forecast or other confounding event occurs within the three-day window (-1, +1) around the lawsuit announcement.