

# **Economic Outcomes of Corporate Espionage**

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*This paper investigates the economic outcomes of corporate espionage (also known as trade secrets) lawsuits. Utilizing 137 hand-collected trade secret cases, we find significantly positive (negative) abnormal returns for the favorable (unfavorable) court decisions up to 5 days around the court decision dates. Our findings are consistent with two hypotheses: information leaking before the event and investor overreaction/underreaction on and after the event days. Our analysis on firm fundamentals show that the consequences of losing trade secret lawsuits are long-lasting. The findings indicate that the punishment incorporated by the market is more severe for the losing firms.*

*Keywords: Corporate Espionage, price reaction, information, and economic consequences*

## **INTRODUCTION**

The stock market is susceptible to companies' involvement in legal confronts. Corporate litigations are expensive, and affect a firm's stock market performance as well as corporate decisions. Karpoff et al. (2008a) show that a firm's reputational damage from financial misrepresentation can be 7.5 times as large as the nominal penalty from the law enforcement order. Moreover, the managers personally must pay the price for cooking the book (Karpoff et al. 2008b). Extensive studies have focused on the consequences of firms' malpractice, which is against public interests (Becker, 1968; Alexander, 1999; Karpoff et al., 2008a, 2008b; Karpoff et al., 2005; Karpoff et al., 2014). Nevertheless, little attention has been paid to the economic outcomes of legal battles over sensitive corporate issues, such as corporate espionage, between companies. Corporate espionage, emerged from intense market competition and intended to steal the trade secrets from competing firms, implies lucrative opportunities and dramatic conflicts of interests (Fink, 2003; Fitzpatrick, 2003; Fitzpatrick et al., 2004). The resolutions of such corporate espionage cases have important economic implications.

In this paper, we seek to fill this gap by examining the financial outcomes of firms embattled in corporate trade secret lawsuits. Corporate espionage activities are widely studied in legal and ethical areas (Boni, 1999; Maher and Thompson, 2002; Almeling et al., 2009, 2010), but little has been explored on the

business side. Thus, the purpose of this paper is to supplement the trade secret lawsuit research with insights from the financial market.

Using hand-collected trade secret lawsuits from the LexisNexis database for the period of 1992 to 2012, we find that when a court decision is favorable (unfavorable) to a firm, the firm's market-adjusted returns are significantly positive (negative). The abnormal returns last for a five-day event window (-2, 2). The results shed lights on the trading behavior of investors. Anecdotal evidence shows that active investors attempt to dig the leaking information and trade accordingly. Moreover, Eastwood and Nutt (1999) and Chan (2003) show that investors overreact to good news and underreact to bad news. The empirical evidence we document supports both information leaking and investor overreaction/underreaction hypotheses. We further show that the impacts of the trade secret lawsuits are long-lasting, especially for firms losing the case. The evidence indicates that the punishment borne by the market is more substantial for firms losing the litigations.

Our paper makes several contributions to the literature. First, our study contributes to the legal research in the financial market. Karpoff et al. (2008a, 2008b) show that the costs of firms cooking the books are enormous, including reputational loss and direct penalty. We provide evidence on the economic consequences of trade secret lawsuits. We add to the literature by analyzing how the court decisions of legal combats over corporate trade secret activities affect investors' expectation of the firms in the short run.

Second, our work also contributes to documenting how the court decisions influence a firm's corporate activities in the long run. Gurun and Kominers (2014) show that intellectual rights lawsuits, such as patent trolls, discourage future innovation activities of the target firms. We add to the literature by showing that this discouragement is not only for patent troll cases. In addition, we find that firms losing the trade secret cases tend to be more conservative in their corporate activities with fewer intangible assets, lower capital expenditures, and less use of debt.

The rest of the paper is organized as follows. Section 2 describes data and methodology. Section 3 presents the empirical results of the stock market reaction. Section 4 illustrates the implications for corporate policies. Section 5 concludes the paper.

## **DATA AND METHODOLOGY**

The data used in this paper is composed of hand-collected trade secret cases from LexisNexis Academic. Cases in our sample generally go through at least two court trials before they conclude. Since our paper investigates the economic outcomes, we exclude cases with no public firms involved. Our initial sample consists of 213 cases for the period of 1992 to 2012. The 213 cases cover 569 trials. We collect a set of information for each trial for both plaintiff and defendant companies and then match the firms with the data in CRSP and Compustat. For each trial in each case, we also identify the favorability of the court rulings to both parties. There are trials deemed as non-material, which are thus excluded in later analysis. Detailed reasons to classify the non-material cases are summarized in Appendix Table A1.

Table 1 presents the summary of the cases collected. One lawsuit case goes through roughly five trials before it is concluded. Most cases are concluded after two trials. After excluding trials with non-material court decisions and those without available return data, our final sample is composed of 137 cases that cover 312 trials.

**TABLE 1**  
**SUMMARY STATISTICS**

This table reports the descriptive statistics for 213 trade secret cases in which at least one public company is involved. Cases cover the period of 1992 to 2012. Case data is hand collected from LexisNexis database, and companies present in the trials are merged with CRSP and COMPUSTAT database. The whole sample is divided into plaintiffs group and defendants group. Each group contains three subsets based on the court decisions.

All Cases with Public Firms					
Number of Cases	213				
	Mean	Median	Mode	Max	Min
Number of Trials within a Case	4.83	3	2	34	2
Final Sample (Trials with Return Data Available)					
Number of Cases	137				
Number of Trials	312				
Court Decisions	Obs. for Each Decision Group				
Favorable to Plaintiffs	57				
Unfavorable to Plaintiffs	31				
Favorable to Defendants	68				
Unfavorable to Defendants	58				
Non-material Trials from Plaintiffs Group	57				
Non-material Trials from Defendants Group	41				

All trials in the final sample are categorized into two groups: 1) plaintiff group, which are in pursuit of recovering their damages actively; 2) defendant group, which fights to secure their benefits. The trials in each group are further assigned to three categories based on the court decision: favorable, unfavorable, or non-material. As shown in Table 1, we identify 57 trials that favor plaintiffs, 68 favor defendants, 31 against plaintiffs, 58 against defendants, and 98 non-material decisions. This hand-collected dataset allows us to observe the stock market reactions to material court decisions from one side of the lawsuits because either the return data for the other side is not available or the other side is not a public company.

We follow Karpoff et al. (2009) and conduct an event study on the market reaction to trade secret lawsuit decisions. Abnormal returns are estimated based on the market model during short-term event windows around material decision announcement dates. We compute the cumulative raw returns (CRET) and the cumulative abnormal returns (CAR) on the event day (0), one (-1, 1), and two (-2, 2) trading days around the decision announcement dates.

## EMPIRICAL RESULTS

### Stock Market Reaction around Court Decision Dates

Prior studies document significantly positive returns around good news events, such as earnings announcements and earnings surprises (La Porta et al., 1986; DeFond et al., 2007). Thus, we expect to observe positive price reaction to favorable court decisions. On the other hand, when they receive unfavorable court rulings, firms are expected to experience negative stock price movement (Karpoff et al., 2008). In addition, firms experience reputation loss when they have product recalls (Jarrell and Peltzman, 1985), defense procurement fraud (Karpoff et al., 1999), and environmental violations (Karpoff, et al., 2005).

Table 2 reports the stock market reaction around the court decision dates in our sample. We form six categories: Plaintiffs (Favorable), Plaintiffs (Unfavorable), Defendants (Favorable), Defendants (Unfavorable), Plaintiffs (Non-material), and Defendants (Non-material). As reported in Panel A of Table 2, the mean CAR ranges from -1.739% to 2.284% for the six categories. When plaintiffs receive favorable court decisions, 85.96% out of the 57 firms experience positive abnormal returns. In the case of Plaintiffs (Favorable), the average CAR is 2.284% with a Patell's t-value of 4.30. Similarly, when the court decisions for defendants are favorable, the abnormal returns are also significantly positive (2.171%). Both results are consistent with prior studies and our predictions that firms benefit from favorable court rulings, resulting in a positive stock market reaction. In contrast, the mean event day CAR is significantly negative when court rulings are unfavorable for both plaintiffs and defendants with values of -1.365% and -1.739%, respectively. Unfavorable decisions discourage investors' confidence, which further reduces a firm's market valuation. The mean CAR is marginally significant and negative when defendants receive non-material court decisions. We also extend the event windows to (-1, 1) and (-2, 2), as reported in Panel B and Panel C of Table 2. The abnormal returns are spanned over a longer window than those of the decision announcement dates. The findings are consistent with the results for the event day (0) abnormal returns.

**TABLE 2**  
**STOCK MARKET REACTION AROUND DECISION DATES**

This table reports the stock market reaction around the decision dates for the 6 decision groups during the period of 1992 to 2012. The event windows include Event Day (0), (-1, 1), and (-2, 2). The stock market reaction is measured using cumulative raw returns (CRET) and cumulative abnormal returns (CAR) over the event windows. We estimate beta by regressing a firm's daily stock returns on the market returns over the 5-year period ending on the trading day before the event window. The estimated beta is then used to calculate the stock predicted returns during the event windows. We measure abnormal returns as the difference between actual stock returns and the predicted returns. The table presents the number of observations (N), the average of cumulative raw returns (Mean CRET), the average of cumulative abnormal returns (Mean CAR), the median of cumulative abnormal returns (Median CAR), the percentage of positive abnormal returns, and Patell's t-value.

Panel A: Event Day (0) Abnormal Returns						
Court Decisions	N	Mean CRET	Mean CAR	Median CAR	% of +AR	Patell's t
Plaintiffs (Favorable)	57	2.021%	2.284%	1.133%	85.96%	4.30
Plaintiffs (Unfavorable)	31	-1.160%	-1.365%	-0.736%	32.26%	-2.13
Defendants (Favorable)	68	2.464%	2.171%	1.166%	82.35%	6.12
Defendants (Unfavorable)	58	-1.618%	-1.739%	-0.917%	17.24%	-3.70
Plaintiffs (Non-material)	57	0.808%	0.627%	-0.142%	40.35%	1.58
Defendants (Non-material)	41	-0.700%	-0.591%	-0.470%	34.15%	-1.73
Panel B: Event Window (-1, 1) Abnormal Returns						
Court Decisions	N	Mean CRET	Mean CAR	Median CAR	% of +AR	Patell's t
Plaintiffs (Favorable)	57	3.500%	3.568%	1.858%	71.93%	4.30
Plaintiffs (Unfavorable)	31	-1.823%	-2.029%	-2.149%	32.26%	-2.27
Defendants (Favorable)	68	3.221%	2.766%	1.517%	75.00%	6.18
Defendants (Unfavorable)	58	-2.475%	-2.675%	-1.090%	31.03%	-3.00
Plaintiffs (Non-material)	57	1.383%	1.096%	-0.144%	49.12%	1.71
Defendants (Non-material)	41	0.131%	-0.361%	-0.848%	26.83%	-1.38

Panel C: Event Window (-2, 2) Abnormal Returns						
Court Decisions	N	Mean CRET	Mean CAR	Median CAR	% of +AR	Patell's t
Plaintiffs (Favorable)	57	4.058%	4.306%	2.489%	68.42%	3.93
Plaintiffs (Unfavorable)	31	-2.455%	-2.477%	-2.716%	32.26%	-1.85
Defendants (Favorable)	68	3.096%	2.872%	1.463%	64.71%	4.53
Defendants (Unfavorable)	58	-1.820%	-1.854%	-1.167%	34.48%	-1.83
Plaintiffs (Non-material)	57	2.110%	1.834%	0.516%	56.14%	2.18
Defendants (Non-material)	41	0.998%	0.306%	0.172%	53.66%	-0.28

### Abnormal Returns and Investor Trading Behavior

Investors, especially institutional investors and insiders, have the incentive, motivation, and resources to obtain and process information (Brunnermeier, 2005). Thus, investors might trade on the private information before the court decisions are announced, leading to significant turbulence in stock prices before the decision dates. On the other hand, investors may overreact or underreact to the court decisions (Bondt et al., 1987). As a result, the significant cumulative abnormal returns over the longer event windows can also be a result of investors' irrational trading activities. To disentangle the two types of trades, we test abnormal stock returns for the following two event windows: (-2, -1) and (1, 2). The results are reported in Table 3. As shown in Panel A, before the decisions are announced, the mean CAR is significantly positive with a value of 1.508% for Plaintiffs (Favorable). Whereas, the pre-event average CAR is -1.964% (t-value=-2.55) when the outcomes are unfavorable for plaintiffs. We do not observe significant results for defendants. The findings are not surprising since plaintiff firms are actively seeking resolutions while defendants are holding ground. A more interesting implication of such results is that they are in line with information leaking hypothesis. In order to fully illustrate this point of view, we need to combine the results in both panel A and panel B of Table 3.

Panel B of Table 3 presents the results for post-event abnormal returns. In the cases of Plaintiffs (Favorable), we do not observe significant market reaction after the event day. One explanation is that the information content of the decisions on plaintiffs has been substantially explored by investors and incorporated into stock prices before and on the decision announcement dates. In comparison, the defendant favorable group shows no evidence of significant CAR before the decision announcement dates due to investors holding around. However, the mean CAR is 0.391% and significant for Defendants (Favorable) during the post-event window of (1, 2).

The significant pre-event date CARs for plaintiff firms supports information leaking hypothesis. Nevertheless, the mixed CAR results we find across all plaintiff and defendant groups indicate that information leaking is not able to sufficiently explain complicated investors' behavior. When facing idiosyncratic shocks such as material court decisions, which have such important financial impacts on the firms, investors tend to overreact/underreact to the news. For the two trading days after the court announcement date, we see a certain level of return correction for plaintiffs receiving unfavorable rulings, and significant abnormal return continuation for defendants receiving favorable rulings. The findings suggest that investors' irrational behavior rattles the value of firms involved in the litigation process while they are digging for private information. For both unfavorable decision groups, there is no significant market reaction after the decision dates. The combined results are consistent with Eastwood and Nutt (1999) and Chan (2003), which show that investors overreact to good news and underreact to bad news. In summary, the combination of information leaking digging and investors' irrational reactions help to explain these firms' abnormal returns around court decision dates.

**TABLE 3**  
**PRE- AND POST- DECISION ANNOUNCEMENT DATES ABNORMAL RETURNS**

This table reports the stock market reaction around the decision dates for the 6 decision groups during the period of 1992 to 2012. The event windows include (-2, -1) and (1, 2). The stock market reaction is measured using cumulative raw returns (CRET) and cumulative abnormal returns (CAR) over the event windows. We estimate the beta by regressing a firm's daily stock returns on the market returns over the 5-year period ending on the trading day before the event window. The estimated beta is then used to calculate the stock predicted returns during the event window. We measure abnormal returns as the difference between actual stock returns and the predicted returns. The table presents the number of observations (N), the average of cumulative raw returns (Mean CRET), the average of cumulative abnormal returns (Mean CAR), the median of cumulative abnormal returns (Median CAR), the percentage of positive abnormal returns, and Patell's t-value.

Panel A: Event Window (-2, -1) Abnormal Returns						
Court Decisions	N	Mean CRET	Mean CAR	Median CAR	% of +AR	Patell's t
Plaintiffs (Favorable)	57	1.310%	1.508%	0.971%	63.16%	2.38
Plaintiffs (Unfavorable)	31	-1.982%	-1.964%	-1.515%	16.13%	-2.55
Defendants (Favorable)	68	0.205%	0.304%	0.126%	57.35%	0.40
Defendants (Unfavorable)	58	0.160%	-0.045%	-0.276%	41.38%	-0.11
Plaintiffs (Non-material)	57	1.031%	0.797%	-0.018%	49.12%	1.95
Defendants (Non-material)	41	0.270%	0.040%	-0.378%	39.02%	-0.38

  

Panel B: Event Window (1, 2) Abnormal Returns						
Court Decisions	N	Mean CRET	Mean CAR	Median CAR	% of +AR	Patell's t
Plaintiffs (Favorable)	57	0.536%	0.486%	0.284%	56.14%	0.75
Plaintiffs (Unfavorable)	31	0.657%	0.899%	0.215%	51.61%	1.17
Defendants (Favorable)	68	0.456%	0.391%	-0.041%	48.53%	2.41
Defendants (Unfavorable)	58	-0.334%	-0.067%	-0.455%	43.10%	-0.16
Plaintiffs (Non-material)	57	0.369%	0.398%	-0.078%	49.12%	0.37
Defendants (Non-material)	41	1.450%	0.853%	0.732%	58.54%	1.16

### LONG-TERM CORPORATE DECISIONS

Extensive studies have documented the consequences when firms are charged with misconduct. In addition to the legal penalties that firms are responsible for (Karpoff et al., 2005; Karpoff et al., 2008a), reputational losses are even more substantial (Karpoff et al., 2008b). Similarly, firms will also have to face loss in their future investment and growth opportunities (Karpoff et al., 2013). Essentially, the punishments to firms would be imposed more by the market in the long run.

We next examine the long-term effects of the trade secret lawsuits. We employ a difference-in-difference multivariate regression analysis for a ten-year event window (Event year -5 to Event year -1, and Event year +1 to Event year +5). For each firm in the sample, the industry average of the same event year is constructed as the control group. The variable *Lawsuit* is a dummy variable that takes the value of 1 if a firm is in our sample, and 0 if it is the industry average. *Post* is an indicator with the value of 1 for the post-lawsuit fiscal year and 0 otherwise. The interaction of these two indicators is also introduced to compare the different effects of the lawsuits before and after the decision announcement dates. The description of each variable is summarized in Appendix Table A2. Panel A of Table 4 shows that firms

receiving favorable court decisions do not seem to obtain many benefits in the long run, except for higher cash holdings. Nevertheless, with respect to unfavorable outcomes in Panel B of Table 4, the consequences seem to be more long-lasting. Specifically, firms receiving unfavorable court decisions conduct fewer R&D activities, spend less on capital expenditures, lose more intangible assets, and hold less cash. In addition, these firms also become more conservative in weighing debts after the lawsuits. The lower leverage used by firms losing the lawsuits can be due to precautionary reasons because the actual economic outcomes of the loss are uncertain until they eventually realize the loss. It is also likely that the reputation loss gives them less access to debt financing. In addition, these firms continue to have a lower-than-before market-to-book ratio after the lawsuit. In Appendix Table A3, we also compare the industry-adjusted firm fundamentals the year before and after the decision announcement dates. It seems that firms with favorable outcomes improve their fundamentals only shortly after the court decisions. In summary, while firms winning the cases seem to benefit from the lawsuits, most of the positive effects are temporary. In comparison, firms with unfavorable court announcements suffer more from the legal events in the longer term. As an extension of prior studies, the results imply that the punishment borne by the market is more substantial for firms losing the litigations.

**TABLE 4**  
**DIFFERENCE-IN-DIFFERENCE REGRESSION ANALYSIS**

This table reports the difference-in-difference regression analysis for a ten-year event window (Event year -5 to Event year -1, and Event year +1 to Event year +5). For each firm in the sample, the industry average of the same event year is constructed and included as a control group. The variable Lawsuit is a dummy variable that takes the value 1 if a firm is in our sample, and 0 if it is the industry average. Post is an indicator with the value 1 for the post-lawsuit fiscal year and 0 otherwise. The definitions of all other variables are described in Appendix Table A2. We control for the year and industry fixed effects. t-values are reported in parentheses. Statistical significance is denoted by \*, \*\*, and \*\*\* at the 10%, 5%, and 1% levels, respectively.

Panel A: Favorable Firms						
Variable	(1) R&D	(2) CAPEX	(3) Intangible	(4) Q	(5) Cash	(6) Debt
Lawsuit	-0.123*** (-6.91)	-0.068*** (-6.15)	-0.091*** (-2.88)	-20.728*** (-7.10)	-0.368*** (-7.97)	0.009 (1.08)
Post	-0.021 (-0.91)	-0.01 (-0.71)	-0.039 (-0.96)	-7.587** (-1.99)	-0.142** (-2.32)	0.011 (1.04)
Lawsuit*Post	0.026 (1.02)	0.007 (0.42)	0.031 (0.69)	2.928 (0.71)	0.158** (2.42)	0.002 (0.18)
Obs.	867	1,141	1,170	1,151	1,205	1,447
R-squared	0.131	0.119	0.039	0.11	0.111	0.023

Panel B: Unfavorable Firms						
Variable	(1) R&D	(2) CAPEX	(3) Intangible	(4) Q	(5) Cash	(6) Debt
Lawsuit	-0.097*** (-3.49)	-0.041* (-1.78)	-0.063 (-1.11)	-12.244*** (-3.42)	-0.358*** (-4.11)	-0.181** (-2.55)
Post	0.109*** (3.16)	0.157*** (5.09)	0.178** (2.36)	5.282 (1.12)	0.136 (1.15)	0.204** (2.13)
Lawsuit*Post	-0.131*** (-3.49)	-0.108*** (-3.35)	-0.221*** (-2.81)	-18.750*** (-3.78)	-0.204* (-1.68)	-0.175* (-1.77)
Obs.	726	894	901	885	945	947
R-squared	0.161	0.15	0.102	0.158	0.115	0.067

## CONCLUSION

This paper studies how a firm's involvement in a trade secret lawsuit and the following court decision favorability affect the firm's market valuation and corporate policies. Using 137 trade secret cases with 312 trials, we find that stock prices of firms respond to favorable (unfavorable) court decisions with positive (negative) abnormal returns during a five-day window (-2, 2) relative to the court decision announcement dates. The abnormal returns around the event days are consistent with the investors trading behavior that they dig information leaking and overreact (underreact) to good (bad) news. We further find that the effects from the trade secret court decisions can be long-lasting, especially for firms losing the cases during the process. Overall, our studies indicate that the market is inclined to punish firms that lose the litigations in the long run instead of rewarding winning ones.

## REFERENCES

- Alexander, C. R. (1999). On the nature of the reputational penalty for corporate crime: Evidence. *Journal of Law and Economics*, 42, 489-526.
- Almeling, D. S., Snyder, D. W., & Sapoznikow, M. (2009). A statistical analysis of trade secret litigation in federal courts. *Gonzaga Law Review*, 45, 291-334.
- Almeling, D. S., Snyder, D. W., Sapoznikow, M., & McCollum, W. E. (2010). A statistical analysis of trade secret litigation in state courts. *Gonzaga Law Review*, 46, 57-101.
- Barberis, N., Shleifer, A., & Vishny, R. (1998). A model of investor sentiment. *Journal of Financial Economics*, 49(3), 307-343.
- Becker, G. S. (1968). Crime and punishment: An economic approach. *Economic Dimensions of Crime*, 13-68.
- Boni, W. C. (1999). Protecting high tech trade secrets. *Handbook of Information Security Management*, 465-479.
- Brunnermeier, M. K. (2005). Information leakage and market efficiency. *Review of Financial Studies*, 18(2), 417-457.
- Chan, W. S. (2003). Stock price reaction to news and no-news: drift and reversal after headlines. *Journal of Financial Economics*, 70(2), 223-260.
- DeFond, M., Hung, M., & Trezevant, R. (2007). Investor protection and the information content of annual earnings announcements: International evidence. *Journal of Accounting and Economics*, 43(1), 37-67.
- Easterwood, J. C., & Nutt, S. R. (1999). Inefficiency in Analysts' Earnings Forecasts: Systematic Misreaction or Systematic Optimism? *Journal of Finance*, 54(5), 1777-1797.



- Fink, S. (2003). *Sticky fingers: Managing the global risk of economic espionage*. iUniverse.
- Fitzpatrick, W. M. (2003). Uncovering trade secrets: The legal and ethical conundrum of creative competitive intelligence. *SIAM Advanced Management Journal*, 68(3), 4-13.
- Fitzpatrick, W. M., DiLullo, S. A., & Burke, D. R. (2004). Trade secret piracy and protection: corporate espionage, corporate security and the law. *Journal of Competitiveness Studies*, 12(1), 57-71.
- Jarrell, G., & Peltzman, S. (1985). The impact of product recalls on the wealth of sellers. *Journal of Political Economy*, 93(3), 512-536.
- Karpoff, J. M., Lee, D. S., & Martin, G. S. (2008b). The Cost to Firms of Cooking the Books. *Journal of Financial and Quantitative Analysis*, 43(3), 581-611.
- Karpoff, J. M., Lee, D. S., & Martin, G. S. (2014). *The economics of foreign bribery: Evidence from FCPA enforcement actions*. University of Washington.
- Karpoff, J. M., Lee, D. S., & Vondra, V. P. (1999). Defense procurement fraud, penalties, and contractor influence. *Journal of Political Economy*, 107(4), 809-842.
- Karpoff, J. M., Lott, J., John, R., & Wehrly, E. W. (2005). The reputational penalties for environmental violations: empirical evidence. *Journal of Law and Economics*, 48(2), 653-675.
- Karpoff, J. M., & Lou, X. (2010). Short sellers and financial misconduct. *Journal of Finance*, 65(5), 1879-1913.
- Karpoff, J. M., Scott Lee, D., & Martin, G. S. (2008a). The consequences to managers for financial misrepresentation. *Journal of Financial Economics*, 88(2), 193-215.
- Lo, A. W., & MacKinlay, A. C. (1990). When Are Contrarian Profits Due to Stock Market Overreaction? *Review of Financial Studies*, 3(2), 175-205.
- Maher, M. K., & Thompson, J. M. (2002). Intellectual property crimes. *American Criminal Law Review*, (39), 971-1023.
- Porta, R. L., Lakonishok, J., Shleifer, A., & Vishny, R. (1997). Good news for value stocks: Further evidence on market efficiency. *Journal of Finance*, 52(2), 859-874.

## APPENDIX

**TABLE A1**  
**SUMMARY STATISTICS FOR NON-MATERIAL TRIALS**

This table reports the descriptive statistics for non-material trials. Case data is hand collected from LexisNexis database. Court decisions are categorized into three categories for both plaintiffs and defendants groups: favorable, unfavorable, and non-material. Cases cover the period of 1992 to 2012. Reasons and the number of non-material trials are presented.

Reasons for Non-Material Decisions	Obs
Motion to seal opinions	3
Appeal court affirmed previous decisions	11
Motive to gain access to sealed documents	5
Bankruptcy cases	8
Neutral statements	33
Fought over legal expenses less than \$100,000	6
Court requested for more information	14
Motions were brought up by non-party	4
Motion to consolidate	4
Motion to compel arbitration	10
Total	98

**TABLE A2**  
**VARIABLE DEFINITIONS**

Variable	Definition	Data Source
R&D	XRD/AT	Compustat
Capital	CAPX/AT	Compustat
Debt	(DLTT+DLC)/AT	Compustat
Intangible	INTAN/AT	Compustat
Cash	CH/AT	Compustat
Q	(AT+PRCC_F*CSHO-CEQ)/AT	Compustat

**TABLE A3**  
**SHORT-TERM DIFFERENCE IN FIRM CHARACTERISTICS BETWEEN**  
**SAMPLE AND INDUSTRY**

This table reports the univariate results of a firm's industry-adjusted fundamentals the fiscal year before and after the lawsuit court decision announcement dates. The industry that a firm belongs to is identified using the four-digit SIC code. The definitions of all the variables are described in Appendix Table A2. We calculate a firm's industry-adjusted fundamentals by comparing a firm's fundamentals with firms within the same industry during the same fiscal year. We then take the average of each variable across the sample. For each variable, t-values are reported for both pre- and post- announcement groups. Besides, t-values for the difference between the pre- and post-event windows are also reported. Panel A and Panel B report the univariate results for firms with favorable court decisions and unfavorable court decisions, respectively.

Panel A: Firms with Favorable Outcomes						
Variables	Observation Year	Mean	Median	Std	t-value	t-value (Post-Pre)
R&D	Pre-announcement	-0.1317	-0.0038	0.4765	-11.52	3.89
	Post-announcement	-0.0750	0.0000	0.3607	-8.35	
CAPEX	Pre-announcement	-0.0534	0.0120	0.3132	-10.03	4.89
	Post-announcement	-0.0212	0.0033	0.1544	-7.10	
Debt	Pre-announcement	-0.1737	0.0000	0.7409	-12.00	4.56
	Post-announcement	-0.0863	0.0000	0.6211	-6.93	
Intangible	Pre-announcement	-0.0451	0.0022	0.5439	-4.49	4.19
	Post-announcement	0.0123	0.0086	0.4009	1.45	
Cash	Pre-announcement	-0.3742	-0.0179	1.5926	-14.15	3.89
	Post-announcement	-0.2504	-0.0326	0.9529	-14.12	
Q	Pre-announcement	-8.8685	0.1920	51.8485	-9.61	1.01
	Post-announcement	-7.5636	0.2956	44.8469	-8.36	
Panel B: Firms with Unfavorable Outcomes						
Variables	Observation Year	Mean	Median	Std	t-value	t-value (Post-Pre)
R&D	Pre-announcement	-0.1410	-0.0067	0.5504	-11.90	0.09
	Post-announcement	-0.1394	0.0079	0.6238	-10.62	
CAPEX	Pre-announcement	-0.0427	-0.0044	0.2892	-8.33	-5.09
	Post-announcement	-0.0802	-0.0096	0.3018	-15.11	
Debt	Pre-announcement	-0.1256	0.0000	0.6414	-9.68	0.23
	Post-announcement	-0.1212	0.0000	0.7160	-9.04	
Intangible	Pre-announcement	-0.0103	0.0000	0.7897	-0.70	-7.08
	Post-announcement	-0.1630	0.0000	0.8656	-10.47	
Cash	Pre-announcement	-0.3972	-0.0290	1.8552	-12.18	-3.56
	Post-announcement	-0.6000	-0.0073	2.6891	-13.09	
Q	Pre-announcement	-5.8670	-0.2823	34.9396	-9.06	-4.31
	Post-announcement	-10.8198	0.1117	51.9118	-11.59	