Litigation against Public Companies That Fail to Disclose Timely Information

By

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Litigation Charges of Public Companies When They Fail to Disclose Information Timely to Investors

By

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ABSTRACT

Every year, between 150 and 200 class action lawsuits are filed against public listed companies in the United States. When disclosure of the lawsuits is made to the investing public, the stock prices of these companies usually react negatively with large declines. Yet, in each year, there are also many publicly listed companies that experience large daily declines without facing investors' wrath of a lawsuit. 152 class action litigation cases in the US were recorded for 2012. This paper investigates (i) what are the noticeable differences in headlines and news details between the litigation group and the comparable group; (ii) why some cases in the litigation group did not experience large stock declines and (iii) what are the common wrongdoings by the US-listed Chinese firms. The results reveal the following findings (i) the litigation group, with the exception of financial restatements and fraud, carry headlines that are similar to the comparable group but details indicate an overuse of optimistic statements that got them into trouble; (ii) companies in the litigation group that did not experience large stock declines on the disclosure date tended to be larger in market capitalization which made the disclosure loss relatively smaller than other companies that met with large stock declines. Yet, with smaller disclosure losses by these large companies, the average market capitalization loss on the disclosure date was larger than the companies that faced large percentage losses, thus suggesting a firm-effect in the results. Furthermore, these companies had more than twice the maximum dollar loss suggesting that their stock prices had been experiencing a slow but gradual decline over the class action period instead of a large loss on the disclosure date; (iii) Chinese firms differ from their litigation counterparts in that these companies have weak internal controls, performing actions that appear to treat the publicly-listed company as a sole proprietorship company.

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Litigation against Public Companies That Fail to Disclose Timely Information

Corporations are supposed to operate with shareholders interests in mind (Popovic et al., 2012). As such management owes shareholders specific duties and rights. When corporations are guilty of wrongdoing, shareholders are faced with a collective action problem. If individual shareholders have to assume all the costs of the litigation for the benefit of all other shareholders, yet only receiving a portion of the benefits, then the individual investor would have minimal incentive to pursue this collective activity. Security class actions solve this collective action problem by allowing all shareholders to act in unison and appoint an attorney of their choice to pursue a single unified lawsuit against the corporation and related defendants (Choi, 2004). The shareholders, as a group, bear the full costs of the class action litigation and split its benefits.

A securities class action lawsuit is filed by investors against public-listed companies when they fail to disclose or disclose false material information. Typically, when such disclosures are made known publicly, the company's stock price would be viewed negatively and face a large decline (Gande & Lewis, 2009). The term 'class action period' is the time frame in which these companies hide the material information. According to the Securities Class Action Clearinghouse by Stanford University, which tracks class action lawsuits filed in the United States, there are between 150 and 200 publicly listed companies that have faced such a lawsuit each year over the last five years. The historical average number of class action litigation cases over the last ten years (2003-2012) was 185 cases. The range was between 152 and 239 cases. For the purposes of this research paper, the sample chosen is the 152 litigation cases for 2012. The distribution of the companies by sector in this sample is shown in Figure 1.

Much research has focused on the post-effects of litigation such as settlements as well as specific cases of class action litigations such as bankruptcy and mergers and acquisitions

(M&A), for example Enron and Alpha Natural Resources Inc.. This will be discussed in greater detail in the next section. Pre-litigation, on the contrary, has not been researched to the same depth. Some research has shown that plaintiffs target optimistic statements in announcements as the basis for class action litigation (Rogers, 2011) but none has used comparable companies and news headlines to determine what motivates shareholders to take a public-listed company to court.

This paper adopts the approach of finding a comparable company for each of the litigation cases in 2012. The methodology is similar to Rogers (2011) in which the author sought comparable companies, based solely on industry, to investigate whether optimistic language, as defined by content analysis from linguistic studies, increase litigation risk. This research paper selects comparable companies to match the litigation companies by market capitalization, disclosure loss and industry as closely as possible. The headlines and details for both the litigation and comparable group are then compared to indentify key differences that separate them. Headlines and news details are chosen because any typical investor would have access to this common source of information from which they make their decision whether to sue a publicly-listed company or not. The analysis is qualitative and it shows that earnings, outlook and operations are the most prevalent issues. Within these categories, headlines between the groups appear to be similar, but news details suggest that a large proportion of cases in the litigation group are attributable to overly optimistic statements made during announcements. Comparables exhibit a more cautious approach to the extent of issuing warning signs regarding a gloomy outlook. There were some cases from the litigation group that had situations of obvious wrongdoing such as fraud or financial restatement related cases. For such cases, a comparable company, with such headlines that did not get sued, rarely existed.

When a company releases a negative disclosure, its stock price would usually face a large decline (Gande & Lewis, 2009). This is more so when the negative news that has been kept hidden from the public is suddenly revealed. However, a subset of the sample being analyzed revealed a different pattern - the stock price did not meet with a large decline. A second part of this study investigated this phenomenon and found the presence of more large companies by market capitalization in this group. Headlines and news details were highly similar to the companies that faced huge percentage stock losses on the disclosure date. The lower disclosure loss might be a result of the larger loss when viewed from the context of maximum dollar loss. These large companies that face litigation had smaller percentage losses on the disclosure date due to the sheer size of the company. However, the magnitude of this loss for these large companies was, on average, larger than those companies that faced large percentage losses on the disclosure date. The overall market capitalization loss (maximum dollar loss) for these large companies, as calculated from its peak till the end of the class action period, was larger than those companies that faced large losses solely on the disclosure date.

As the Chinese economy expands, the number of Chinese companies that list abroad has also increased. In the expansion process, a number of companies have been linked to financial scandals that have brought a bad name to all Chinese companies. In this sample, approximately 10% (14 companies) are Chinese companies that faced class action litigation. Their headlines and news details were examined to determine if there were trends in their wrongdoings. The results revealed that Chinese companies are still plagued by weak internal controls. This is almost consistent across all the Chinese companies in this sample and differentiates them from their peers in the same litigation group.

The remainder of this paper is organized as follows. The next section begins with a review of past research that has been conducted in class action litigation. This is followed by the methodology of first study, its results, and a couple of mini-case discussions. The methodology of the second study and its results are presented next followed by the final third study.

Literature Review

Mergers & Acquisitions Related Cases

There is a unique group of securities class action lawsuits that is generally not associated with stock declines. These cases pertain to M&A. Over the recent decade, officially announced M&A proposals have triggered a substantial number of class action lawsuits by shareholders against the target company's board of directors for a breach in their fiduciary duties. Typically, the target company's shareholders are displeased with the offer price and use a lawsuit to seek for a higher price.

In a study conducted by Thompson and Thomas (2004) at a time when acquisition-oriented litigations were on the rise and relatively new to researchers, the authors compared and contrasted this new breed of litigation against traditional derivative and securities class action lawsuits. Using 1000 corporate fiduciary duty cases filed in Delaware in 1999 and 2000, of which more than 80% of the cases were M&A related, the authors made some key findings. Firstly, these M&A related lawsuits, like traditional derivative and securities class action lawsuits, have investors that complain about high managerial agency costs involving corporate control. Allegations made revolved around failure by the board of directors to maximize shareholder's value in selling control to the acquirer and issues pertaining to potential conflict of interest transactions such as management buyouts and controlling shareholder acquisitions. Secondly, similar to securities class action litigations, M&A related lawsuits were filed within

days of the announcement and settled quickly, and in most situations, the cases were filed by a group of small plaintiff law firms. However, unlike securities class action cases, most of the monetary settlement ended up in the hands of the shareholders instead of huge attorney fees. Lastly, in the context of hostile takeovers defined as bids opposed by management or the entrant of a second bidder that tops a friendly bid, the authors found that it becomes probable that bidders might file a lawsuit to increase their odds of closing the deal even if they were not the preferred acquirer from the management team's perspective.

Prior studies have examined the effects a class action lawsuit had on the takeover premium and the probability that the deal would be completed. For example, Krishnan et al. (2012) used data during the fifth merger wave between 1993 and 2001 and found that target companies that faced class action litigations had completion rates that were significantly lower than those that did not face class action litigations. Further analysis revealed that the target companies that faced class action litigation and managed to complete the M&A transaction had a significantly higher takeover premium. Both of these results had controlled for selection bias, different judicial standards, major offer characteristics, M&A financial and legal advisor reputations as well as industry and year fixed effects. From an economic standpoint, it would be difficult to predict if there would be any positive expected gains from the potential lawsuit. Only when the expected increase in the takeover premium exceeds the probability that the M&A deal might be terminated, then would the class action litigation be justifiable. The authors concluded that when a merger is characterized by a single, friendly bidder, class action litigations mimic the presence of a rival bidder by discouraging low-ball bids and forcing a higher offer price by the bidder.

Bankruptcy Related Litigations

Securities class actions targeted at fraudulent activities that drove publicly-listed companies such as Enron and WorldCom into bankruptcy has helped shareholders recover billions of dollars. While there is an ongoing debate whether securities class action has any merits (Romano, 1991), when researched in the context of firms filing for bankruptcy, it may help unravel whether fraud was present and whether it had contributed to the firm's demise.

The current literature suggests that there are two competing views regarding securities fraud and bankruptcy. One theory proposed is that fraud is committed when the company is on the brink of failure. Managers might have responded with fraud in an attempt to save the company or their jobs. Another theory put forth is that bankruptcy becomes an automatic cue for affected parties and legal enforcers to assume that fraud was present. The difference between the two theories is, for the former, a causal relationship between fraud and bankruptcy is suggested while for the latter, it is merely a perception that might reflect hindsight bias. This might imply that management was aware of fraud but failed to disclose it.

To shed light and understand the purpose of securities class action, a recent study conducted by Park (2013) examined the relationship between bankruptcy and securities fraud by using 234 bankruptcy-related securities class action lawsuit between 1996 and 2004. This constituted 16% of all the filings made during that chosen period. The author tested two hypotheses. The first was whether bankruptcy cases that led to securities class actions were more likely to have actual merits than non-bankruptcy cases. The results turned out to be mixed. Bankruptcy cases were not necessarily more likely to be associated with fraud allegations compared to non-bankruptcy cases. While it was found that bankruptcy cases had higher rates of accounting restatements, they were not more likely to be involved with other indicators of merits such as insider trading and actions taken by the Securities and Exchange Commission. Yet,

bankruptcy cases had a lesser likelihood of being dismissed and a greater probability of a thirdparty settlement of \$3 million or more than non-bankrupt cases.

The second hypothesis tested whether the same bankruptcy cases were more likely to be perceived as having merit than non-bankruptcy cases, regardless of actual merits. Statistical analysis showed that even after controlling for indicators of merits, bankruptcy effects were still present and the author concluded that bankruptcy cases were treated differently from non-bankrupt cases. Bankruptcy, unlike non-bankruptcy related securities class action lawsuits, thus becomes a heuristic that judges rely on to ensure that the case is not dismissed. This works well when the settlement amount is less than \$20 million. When the settlement amount becomes larger than \$20 million, directors and officers ("D&O") insurance policy limits sets in and the bankruptcy effect was found to fade away. Overall, the author concluded that securities class actions for bankruptcy cases are effective and provides shareholders with security.

Effects of Post-Litigation

When security class action litigation concludes, many events occur. Attorneys are paid and non-bankrupt companies have to decide what to do with disclosures going forward. This section will discuss what prior studies have concluded about these two post-litigation effects.

One of the most difficult problems that a judge would face is to determine a justifiable fee for attorneys involved in class action litigations. Even in cases that have been settled, determining an appropriate fee is part of a court's mandate so as to protect class members who were absent. Past research has shown that attorney's fees are primarily determined by the amount recovered on behalf of the client (Eisenberg & Miller, 2004). Using class action cases between 1993 and 2002, the authors found that alternative methods of calculating attorney's fees such as the lodestar method (the product of a reasonable hourly rate and appropriate hours) did not

predict attorney's fees as well as client's recovery amount. While client's recovery amount was important to attorney's fees, it was also found that recovery amounts and attorney's fees did not increase over time; rather a scaling effect was observed. As client's recovery increased, attorney's fees constituted a smaller percentage of it and the risk of the cases were positively correlated with fees. A second study conducted by the same authors some years later with double the number of cases continued to show the same results (Eisenberg & Miller, 2010). Consistent with their previous findings, client's recovery amounts and attorney's fees did not increase over time. To prevent attorneys from overcharging clients, the authors concluded with a suggestion that courts could create a lookup table between class recovery and attorney's fees based on past cases to determine fees for current and future cases.

When companies fail to disclose or disclose materially false information to their shareholders, the outcome would be a fall in the stock price once proper disclosure has been made. This is usually followed by a securities class action lawsuit. After companies end their securities class action litigations, it would be important for shareholders to understand if these companies had learned their lessons. Rogers and Buskirk (2009) investigated the changes in disclosure behavior of 827 firms' post-class action securities litigation between 1996 and 2005 and found surprisingly that there was no evidence that firms would increase or improve their disclosures to shareholders even after facing a securities class action litigation. Contrary to improvements in disclosure, the authors found that firms reduced the level of information provided after the litigation after controlling for economic performance and other disclosure determinants. The decrease in disclosure could take multiple forms that include reduced probability of hosting am earnings-related conference call or issuing earnings forecast. When forecasts are issued, they tend to be issued for shorter termed durations and are less quantitative.

Quantitative information announced tended to have large ranges such as wide ranged earnings estimates. This reduced information flow was in no part attributable to a decrease in the firm's ability to forecast. The authors conclude that managers do not believe after facing class action securities litigation that high levels of disclosure reduce the expected cost of litigation. As the old saying goes, once bitten twice shy, managers expect that going forward, the company faces a higher likelihood of litigation risk (Baginski et al., 2002, Johnson et al., 2001). As such, managers adopt the mindset that voluntary disclosures, even when made in good faith, could backfire when attorneys use these disclosures to allege the firm of misconduct.

Contribution

This study differentiates itself in a few ways from prior research on securities class action litigation. Firstly, it investigates class action litigations from the perspective of shareholders. Specifically, instead of examining post-litigation effects such as settlement issues or future disclosures by companies that just settled a class action lawsuit, this study will focus on what motivates investors to make the decision to step up and sue public-listed companies. Typically, when publicly-listed companies experience a large stock decline, information about this decline can readily be found in the news. This study will use the news headlines and its details to examine whether there are differences between companies that would face class action litigation against another company that would not after controlling for industry, the company's market capitalization and the losses experienced. The hypothesis is that there should be differences in the headlines and details of the news between companies that face class action litigations and their comparable companies. In particular, companies that did not face litigation would be expected to be timely and transparent in their disclosures. On the contrary, companies that face

litigation would be expected to have details of non-disclosures and elements of information that could potentially mislead investors.

Secondly, only companies with significant stock declines after negative disclosures are explored. M&A related litigations tend to have an opposite effect. Shareholders who take this group of publicly-listed companies to court are often displeased by the offer price and seek to raise it through a lawsuit. As such, M&A related cases are excluded from this study.

Thirdly, not all companies experience a large immediate decline upon disclosing negative information that had been withheld previously or being caught for releasing false material information. As such, a portion of this study will be dedicated in exploring why these companies experience a different effect from others.

Lastly, it is observed in the dataset that Chinese companies constitute approximately 10% of the class action cases. As the Chinese economy continues to grow and seek to raise capital in foreign countries through initial public offerings, this study also examines what mistakes were made that led to a class action lawsuit and how Chinese companies can improve their corporate governance to prevent further lawsuits.

Methods - Study 1

To examine what drives investors to sue public companies for large declines in stock prices, class action litigations for the most recent full year, 2012, were used to compare with comparable companies that did not face litigation for the same decline in stock prices. The term "disclosure loss" shall be used for the day these companies make their disclosures public that resulted in large stock price declines. In 2012, 152 class action lawsuits were recorded by Stanford Law School Securities Class Action Clearinghouse.

The methodology for study 1 was as follows: out of the 152 class action cases, 35 cases were removed for various reasons: 10 of them were related to M&A whereby investors were dissatisfied with the offer prices and have resorted to class action litigations to seek higher amounts and 25 of them did not have complete historical stock price or shares outstanding information that prevented the computation of market capitalization losses upon disclosure. For the remaining 117 class action cases, the market capitalization before and after the large stock decline were calculated as well as the stock return on the disclosure date. The Center for Research in Security Prices (CRSP) database was then queried to produce all the companies that suffered large declines in the given year. The criterion to define large decline was set as losses in stock value of 10% or more in any given day of the year. As such, a further 31 cases were removed as they experienced losses on the disclosure date that was less than the threshold of 10%.

For the remaining 86 cases, comparable companies were chosen based on the following criteria: Standard Industrial Classification (SIC) code, daily returns (%) and market capitalization before and after the large stock decline. The ideal match would be to have a company that shared the same four-digit SIC code as the company facing class action lawsuit, comparable in market capitalization and experienced similar declines in the company's stock. If a company shared the same SIC code but did not have the same market capitalization or similar large stock declines, the search would be expanded to a three-digit match and so on until the best match for all three criteria could be found. For example, if company A (company under class action lawsuit) had a SIC code of 1311 with a stock decline of 15% and market capitalization of \$100 million after the stock decline, an ideal match would be to seek out a company (not under class action lawsuit) that also had a SIC code of 1311 with a stock decline of 15% and post-loss market capitalization

of \$100 million. If such a company does not exist, the search is expanded to include SIC codes between 1310 and 1319, matching based on the first three-digits of the SIC code. The search is further expanded to two-digit or one-digit matching until the best match could be found. The worst case scenario would be the inability to find a match even after expanding the search to a one-digit SIC code match. As comparables rarely match perfectly with the class action cases in terms of disclosure returns and market capitalization, the allowable margin of error was set at 10% for disclosure returns or \$100 million for market capitalization disclosure loss, whichever was smaller.

With these criteria in place, 65 out of 86 litigation cases were eventually paired. 21 cases were eliminated for the following reasons - no suitable comparables were found (10 cases) and comparables lacked details (11 cases). The 65 comparable companies were then screened against Stanford Law School Securities Class Action Clearinghouse 2011 and 2013's list of companies facing class action lawsuits to ensure that they were not in the list or, if so, were completely out of the former class action period. A one year timeframe before and after the year 2012 was chosen to screen these companies because public investors were given the same time window to file a lawsuit against public companies. If they fail to do so within the one-year period, their right to sue the company would be forfeited and the company would be free of all potential allegations. Hence, it would be safe to assume that if these 65 newly matched companies did not appear in the 2011 and 2013's class action list provided by Stanford Law School Securities Class Action Clearinghouse, then their large stock declines were not related to an investor lawsuit against them.

Factiva was then used to search for headlines and details regarding those days when these 130 companies (65 pairs) met with large stock declines. A time window of 2 days before and

after the disclosure date was set to retrieve these headlines and details as it was noted that news sources took time to update their databases. A compare and contrast between the headline news and their details would then be carried out to identify differences between class action cases and non-class action cases.

Results - Study 1

In Study 1, 65 pairs of companies were analyzed to identify what makes investors decide to sue public-listed companies for a large decline in the company's stock price (see Table 1 for the list of companies in the litigation and comparable group). Figure 2 shows how these 65 companies were broken down by sector. Services and healthcare-related firms account for half of the litigations used in Study 1's analysis. From Table 2, the total market capitalization loss by the 65 companies facing class action litigation was \$37.98 billion with a mean of \$584 million. The first and third quartile market capitalization loss was \$65 million and \$678 million respectively. The average disclosure return for the 65 companies facing class action litigation was -27.74%. For the 65 comparables chosen, the total market capitalization loss was \$31.27 billion with a mean of \$481 million. The first and third quartile market capitalization loss was \$85 million and \$469 million. The average disclosure return for the comparables was -25.59%.

The pairing methodology for these 65 pairs were based on SIC codes while controlling for disclosure losses and market capitalization (comparables were given a margin of error of 10% for disclosure returns or \$100 million for market capitalization disclosure loss, whichever was smaller). Figure 3 shows the distribution of SIC codes for the comparables in relation to the company facing class action. The ideal matching would have been on a 4-digit SIC code. This would mean that the two companies in the pair should come from the same industry, share the same business group and have the same specialization. A 3-digit SIC code match meant that the

two companies belonged to the same business group. A 1-digit and 2-digit SIC code match meant that the two companies were in similar industries. The final sample has 19 pairs with a 4-digit matching, 11 pairs with a 3-digit match, 16 pairs with a 2-digit match and 19 pairs with a 1-digit match.

After having searched Factiva for the headlines and details for the news relating to the disclosure loss, the information was grouped into various categories based solely on the headline description (refer to Figure 4). "Earnings and outlook" specifically referred to announced earnings for the current quarter or fiscal year, changing prior guidance and company's outlook for the future. The category "operations" were events that affected the company's daily business such as failed drug trials in the case of pharmaceutical companies, capital market manipulation, delays in production etc. "Management team" issues pertained to key personnel's resignation while "Fraud" related to forms of unethical behavior for company or personal gains, false claims, insider trades etc. "Financial restatements" refer specifically to errors causing a company's financial statements to become unreliable and required restatements. The final category "Others" covers issues related to company loans and new equity issuance.

From Figure 4, two categories stand out - "Earnings and Outlook" and "Operations". These two categories comprise 69% (45 cases out of 65) of the class action litigations and 80% (52 cases out of 65) for the comparables. There are more cases related to earnings and outlook for the comparable group but none related to the financial restatements category. The class action group also has more management, fraud and financial restatement related observations. Lastly, the class action group has only one case in the "Others" category, suggesting that all the litigations could clearly be defined and placed into the other formal categories.

Earnings and Outlook Analysis

Each category was analyzed in turn for differentiating issues between the class action litigation group and the comparable group. Under "Earnings and Outlook", a common finding in the comparable group were words and phrases such as "warned", "continued to expect lower ...", "analysts expected losses" etc. Behind these words and phrases contain warning signals in advance of the negative events that would befall at a later date. The usual headlines that report these negative events were the company's failure to meet expectations either falling short of analysts' or their own previously set guidance for revenues or bottom-line profitability. When negative events affect these companies in the comparable group, shareholders have less reason to react with a lawsuit because warnings have been issued previously. The reasons that triggered a negative report for the financial performance of the company, though varying widely, could be summarized into two scenarios. Firstly, for some companies that had poor returns to shareholders, they experienced setbacks such as higher costs in their operations citing weaker demand, delayed orders etc. but had already issued a prior word of caution to shareholders. Secondly, some of these reasons cited were part of the economic environment in which these companies did their business. For example, Edward Lifesciences Corporation announced their fourth quarter results on February 3, 2012 and reported that revenues had increased by 9.6% but fell short of what analysts had expected. The company also provided an outlook that was disappointing. The reason cited was the poor business conditions in Southern Europe. This suggests that the company was in an environment in which it lacked control. Under a generally bad economic environment, there are ample sources of information that shareholders could turn to and piece its impact to the company's current and future economic performance, which makes a lawsuit generally unjustifiable.

For the litigation group, while the headlines for the "Earnings and Outlook" category appear to be similar to the comparables, the details tend to differ. Like the comparable group, the headlines would report news such as "missed earnings", "revenue and/or earnings below expectations", "lowering of guidance and outlook" etc. However, the details indicate that the drivers of poor financial performance during that current period were material information that was hidden from or false disclosures issued to the shareholders. If timely disclosures were made, shareholders could at least make an informed decision whether to continue to invest in the company. Some examples of the undisclosed information related to losing customers, fraudulent revenue recognition methods and misleading investors to believe in stock repurchases and dividend payouts despite a failing business model.

Case: SAIC Inc. (Litigation) vs Computer Sciences Corporation (Non-Litigation)

SAIC Inc, a company worth approximately \$5.3 billion by market capitalization on August 30, 2011, provides information technology support and government services. On August 31, 2011, the company reported "sour results, lowers outlook" as captured by Factiva. The stock price of the company fell 13.5%, erasing \$717 million worth of market capitalization. Details in the news revealed a press release announcing results for the second quarter of 2012 that noted a 6% decline in revenue and a 23% decrease in operating margins. The decline in revenue was in part due to the ending of the CityTime contract and that the company was likely to make restitution to New York City for the wrongful conduct of overbilling New York City hundreds of millions of dollars, threatening its reputation and credibility for future government contracts. The effects of overcharging had also caused the company's operating results to become materially misstated.

Computer Sciences Corporation was used as a comparable to SAIC Inc. The company is a provider of information technology and other professional services that had a market capitalization of \$5.1 billion as of November 8, 2011. Like SAIC Inc, its customers include government agencies and commercial enterprises. On November 9, 2011, the company's headlines read "Computer Sciences Corporation lowers high end of prior FY2012 revenue and earnings per share (EPS) guidance". The stock price fell 15.4%, erasing \$786 million in market capitalization value. Details indicated that the company was facing uncertainties in several business and market.

Comparing these two companies, it becomes rather apparent why shareholders of SAIC Inc would want to file a class action litigation against the company. SAIC was engaged in a fraudulent act of overbilling the government so as to improve its revenue. However, once caught, it exposes a chain of wrongdoings, each of which is a charge against the company. Furthermore, it calls into question the integrity of the company and their management, which might have a future impact on whether customers would want to continue maintaining a business relationship with the company.

Computer Sciences Corporation had a similar headline as SAIC Inc with approximately similar losses, yet the company was litigation free. From the details of the news, it appeared that Computer Sciences Corporation had issued its FY2012 guidance previously and was taking steps along the way to make its guidance as accurate to their business performance as possible. When the company was certain that its business outlook was not as optimistic as formerly predicted, management did not hesitate to reduce its forecast despite knowing that shareholders would react negatively to the news. Hence, it can be concluded that for the comparable group, the

management team tends to issue more forward looking statements and update disclosures whenever necessary.

Operations Analysis

A total of 23 cases that were related to the company's operations were reported from the litigation group and 19 from the comparable group. Unlike the "Earnings and Outlook" category, the operations for each company in the litigation and comparable group tend to differ and might even depend on the industry. Hence, to analyze companies that faced litigation as a result of operational problems and their comparables, the approach taken is to separate the companies into their respective sectors, and from there, identify common headline themes within each sector.

For the nine companies in the litigation group belonging to the healthcare sector, they were compared against 11 companies in the comparable group. There was no differentiating theme between the headlines of the litigation group and the comparable group. Both groups shared many similar headlines pertaining to failed drug trials. Only one company from the litigation group incurred legal troubles for marketing their existing drug's off-label usage while another company faced litigation for an oversight in its medical equipment, causing complications in patients who were treated by their product. The key issue with these two companies is that their products were already in the market but due to poor quality control and explicitly not adhering to the regulation of proper drug marketing, these companies brought trouble upon themselves. One pharmaceutical company from the comparable group faced a huge decline as Medicare issued a hefty rate cut, which caused a decline in its drug adoption for the lack of reimbursement coverage. This action by the Federal Reserve had a negative impact on the company, and it was something that the company could not control. For the other 17 companies (nine from the litigation group), while they shared common headlines for drug trial failures, the

differentiating factor that caused investors to sue the companies in the litigation group is the overly optimistic statements released by the senior management during various stages of the drug trial process. Shareholders not familiar with the success rates of the drug trial process could easily be misled into believing the senior management's unfounded opinion about the potential of the company's drug in its developmental stage.

In the food and beverage sector, only one case was reported from the litigation group that had an explicit headline regarding improper advertising practices. Two companies from the comparable group had headlines that involved a forward looking statement warning investors about the material deflation in the company's largest profit segment as growth slows and customers leave and an investigation by the FDA into a death after drinking the company's product. Timely warning signals released by the former company allowed investors to trade in the company's stock with caution while the regulatory investigation into the latter company for a correlated event was insufficient evidence to prove that the company could be linked to the death of the victim after consuming the company's beverage.

No cases from the comparable group were reported in the financial sector but three cases (two of which were prominent cases) from the litigation group were pointed out. Barclays PLC and UBS AG were financial institutions that were charged for the London Interbank Offering Rate (LIBOR) fixing and the poor internal controls that allowed a rogue trader to lose \$2.3 billion, respectively. Investors took a big hit as the stocks declined and the fault could be clearly attributed to the companies for a lapse of internal controls. The third case involved a bank that continued to make false and misleading statements regarding the quality of its loan portfolio, internal controls and lending policies. The bank even decided to pay a dividend to shareholders

at the expense of depleting its capital base. This bank was stopped by the Federal Reserve Bank of Philadelphia and its true financial situation was then revealed to the public.

In the basic materials and energy sector, the common headline theme in the litigation group (7 cases) involved production issues at mines or oil wells. One company had to close the mine for not complying with safety regulations, resulting in the death of a miner; others delayed the opening of a mine or reduced their previous production guidance due to an overestimated reserve when the drilling process revealed low quality ore or a lower than expected oil to natural gas ratio. In the comparable group, four cases were analyzed. Half of them involved a sudden termination of a partnership that caused the project of developing a mine to be cancelled. One company had a reduction in mineral reserves as compared to a year ago. However, unlike those in the litigation group, details indicate that the reason for the reduced production was the breakdown of the machinery at the site. Efforts have been taken to remedy the situation and production was expected to continue in the near future. The fourth case involved the possibility of a delay in selling assets to fund its operations due to the need to comply with the terms of its credit line. Once again, a forward looking warning signal had been issued so that investors could take heed as they traded the company's stock.

In the information technology sector, two cases were analyzed from the litigation group. The common theme in the headlines revealed that both companies took impairment charges related to acquisitions. One of the companies concealed that it had made an acquisition of a company that had serious accounting improprieties. The target company was in fact facing negative trends in its business operations, but due diligence was not conducted properly that led to this significant mistake. The other case involved the company not writing down the goodwill associated with its acquisition even though it knew that the acquisition had failed or was on the

verge of failing. This had caused the reported earnings to be materially overstated. Two cases were also reported from the comparable group. In one case, the company had filed for bankruptcy protection. Details revealed that the company's demise was a result of losing its focus as the company made numerous acquisitions to diversify but could not consolidate the wide variety of businesses. The other case involved the company facing a surprise loss of its key customer as the supplier contract was terminated by the customer to reduce cost.

Overall, the analysis in this section indicates that negative surprises beyond the company's control lead to the large stock declines. Concealment of negative events is a common theme in the business operations of a company as well as overly optimistic statements that mislead shareholders into investing with the company. Weak internal controls might allow employees who found the loopholes to commit devious acts that hurt the company and if the repercussions of those actions are large enough, the company could potentially face bankruptcy.

Case: GenVec Inc (Litigation) vs Affymax Inc (Non-Litigation)

GenVec Inc is a biopharmaceutical company that uses its proprietary gene-delivery technology to develop therapeutics and vaccines. The market capitalization of the company was \$351 million as of March 28, 2010. On March 29, 2010, the news headlines reported that the stock price of the company plunged 71.5% after announcing that its cancer drug failed in the trial phase. Details indicated that the company's drug TNFerade, a drug in its research phase to treat pancreatic cancer, had failed in its third phase of the drug trial. The risk of death was lowered by 8%, but it was not statistically significant, and the drug trials were eventually discontinued. It was noted that the company's most senior officers had been continuously optimistic regarding the potential success of the drug, creating hype about its future strategic commercial value.

Affymax Inc, like GenVec Inc, is also a biopharmaceutical company that specializes in developing kidney related drugs. Its market capitalization on June 20, 2010 was \$553 million. The next day, the company's stock price declined by 68.8%, erasing almost \$381 million worth of equity value after the news headline read "Affymax Inc shares plunged as late-stage trial data on Hematide garners concern". Details indicated that Affymax Inc released negative results for its Hematide treatment of anemia in chronic renal failure patients. In the subgroup of non-dialysis patients, a higher frequency of death, stroke, congestive heart failure and other complications.

A comparison of the two biopharmaceutical firms revealed that both suffered similar losses for the same unsuccessful drug trial in the late stage. The difference between them lay in how the senior management handled the situation. During the drug trial process, the senior management of GenVec Inc continuously touted the superiority of the potential of its drug. Given the uncertainty of the drug's success during its trial stage, the senior management was expressing an unfounded opinion instead of a fact. This caused shareholders to be misled into believing what was expressed as an opinion was a material fact that should be trusted. The senior management of Affymax Inc, on the contrary, did not release any optimistic statements or promises regarding the success of the drug trials.

Management Team, Fraud, Financial Restatements and Others Analysis

A total of 21 firms from the class action litigation group and 13 firms from the comparable group were recorded for the above reasons. Six firms faced management-related troubles in the litigation group. The headline theme for this group relates to high positioned key personnel (director level and above) resigning from the company. Half of the cases involved CEO resignation while the other half had situations where between two and twenty-six

management personnel resigned. There were only two management-related cases for the comparables group. Unlike those in the litigation group, one case involved the stepping down of the CEO one month after troubles with financial reporting at the company was reported, while the other was related to the departure of two key engineers.

Apart from the disparity in the number of key personnel that left the firms for the litigation and comparable group, one major difference between the headlines of the litigation and comparable group was that there was more information offered in the headlines for the litigation group. The headlines for the most firms in the litigation group comprised two elements; namely stating the fact about the resignation of the company's key personnel as well as added information that tended to be negative such as poor earnings, disappointing outlook and using ownership of the company as collateral on margin. The second difference lay in the details of the news that followed as they provided more insight and put the company in worse light. For example, Allscripts Healthcare Solutions Inc (litigation group) had a headline "Allscripts Chairman Departs With 3 Directors; 1Q Net Falls 54%" while Tesla Motors Inc (comparable group) that also had key personnel leaving the company had a headline that read "Tesla Motors Inc shares skid after 2 key engineers leave". The details of the news indicated that Allscripts Healthcare Solutions Inc, formed as a result of a merger, encountered setbacks in the bonding of the senior management levels of the company. Key personnel had resigned, which created a harmful upheaval in the company's leadership. The impact of fragmented leadership caused material portions of the company's revenue and net income to become unreliable as they were estimated based on the successful integration of the pre-merger systems to develop a unified product offering. As such, the company lacked a reasonable basis for claiming progress after the merger along with sound operations, profitability and strong growth. Tesla Motors Inc, on the

other hand, suffered an equivalent stock price decline as two of its chief engineers resigned from the company. However, their resignation did not come at a time when the company was facing poor performance, and there was a proper handover of duties to their successors before they left.

Six fraud related cases were recorded for the litigation group and two for the comparable group. While it appears surprising to see fraud related cases in the comparable group, the details suggest otherwise. They were classified as fraud related solely based on the headline news. For those in the litigation group, four were from the healthcare sector, one each from the energy sector and education sector. For all these companies, they had headlines that explicitly stated "fraud" or was suggestive of it. In the healthcare sector, the common fraud techniques employed were filing false claims and inflating occupancy rates at a hospice or home for the aged. In the education sector, the company did not comply with the standards of accreditation while in the energy sector, the company engaged in fraudulently forging a financial arrangement that did not exist. Company A (under litigation) had security interest in Company B and guaranteed a financial arrangement to other companies related to this Company B using bonds from Company B as collateral. Two years later in 2012, Company A revealed that the bonds did not exist and were, in fact forged.

For the two firms from the comparable group that were fraud-related, the headlines were suggestive of fraud. In the first case, one firm had a CEO who simultaneously ran a private hedge fund company that traded in oil and gas contracts in which the company was also involved. Details in the news explained that there was no evidence that the CEO used any proprietary knowledge of the company trades to make trading decisions at the hedge fund. The second case involved an insurance company suing a bank for the mortgage meltdown in 2008. Details indicated that the insurance company was suing the bank for more than \$10 billion for a

"massive fraud" on mortgage debt. While the insurance company was not the one being sued, it still suffered a large negative daily stock return because the banking stocks, on average, suffered large losses of about 11%. Hence, these two firms in the comparable group, while they appeared to have headlines that suggest fraud, the details in the news suggest otherwise. This is not surprising as fraud would typically be expected to result in litigation.

It should not be a surprise that the comparable group did not have any cases of financial restatements while those in the litigation group had seven cases. In those cases, financial statements needed to be restated because revenue or earnings were overstated in the past. Three of the cases needed to be restated because of improper accounting for leases and consolidation after an acquisition. The other four cases did not provide any reasons for restatement, but there was one case in which the company deceived its shareholders claiming that it had completed its previous restatement from 2007 to 2010, but in 2012 the company announced that its previous financial statements were still improperly accounted for. The effects of restatement not only delay shareholders from knowing the true financial statements, it could also delay a firm from filing its latest earnings since past financial statements have to be reconciled to the current filings. The implication to shareholders looking at erroneous financial statements is the inability to make an informed decision about investing in the company. As companies tend to overstate their financial statements to make them more appealing, when the truth becomes known, many investors get hurt unknowingly as the stock price sinks.

In the final category "Other", only one case was analyzed for the litigation group relative to nine cases from the comparable group. For the single case from the litigation group, the headline of the company stated that the company drew down \$160 million from its revolving credit line. Details however indicated that the problem lay in the failing business model of the

company and that the cash position of the company was dangerously low. All this information was unfortunately undisclosed to shareholders, which led to the lawsuit.

In the comparable group, the common theme that led to these companies' large stock declines was credit rating cuts and capital structure changes in these companies as they planned to dilute existing equity by offering new equity and taking up new term loans. The reasons for changing capital structure were not explicitly stated. For the two companies that met with credit rating cuts, their businesses were adversely impacted by the European debt crisis that caused analysts to expect that the company's corporate bonds were not of investment quality.

Discussion - Study 1

In Study 1, some differences between the litigation and comparable groups were found. While in most cases the headlines were similar between the groups, the details revealed information that separated the two groups. There were cases in the litigation group that seemed fairly obvious why they faced class action litigation. This happened in the fraud and financial restatement categories. However, for the other instances, the details have to be read and compared to a comparable group in order to understand why shareholders decided to sue. The biggest issue is the use of overly optimistic statements in the litigation group. The comparable group safeguard themselves by being less optimistic and release warning signals in their announcements to raise awareness to investors of the business environment in which the company was operating.

Prior research has been conducted to investigate whether the use of soft information such as qualitative statements that puts the firm in both favorable and unfavorable light is associated with shareholder litigation. Optimism has been an underlying theme of shareholder litigation as investors allege that previous expectations set by the firm were artificially inflated due to unduly

high optimism. However, what is deemed optimistic is still unresolved and debatable. Some have argued that executives remain uncertain about the causes of litigation and what they could do to avoid being sued (Rogers and Van Buskirk, 2009). Uncertainty arose because the court has ruled on both sides of this matter. In some cases, statements such as "demand has been strong" faced litigation while statements such as "earnings growth outlook remains positive" were dismissed as immaterial puffery. The authors found that undergoing the litigation process taught managers how to make significant changes to the company's disclosure policy and helped them to comprehend the link between disclosure and litigation.

The results of Study 1 are consistent with Rogers et al. (2011). Sued firms tend to have more unusually optimistic statements in their lawsuits when compared to firms that face similar business environments. Senior management of any company should take heed to the implication of this finding. Regulators are unlikely to favor companies by reducing the need for regular and accurate disclosures. In fact, regulators are constantly looking for ways to improve the transparency of disclosures made to protect investors. This means litigation risks are unavoidable and plaintiffs will continue to scrutinize these announcements. Firms can, however, take actions to minimize this risk by reducing the optimistic tone of the announcements made either by decreasing the use of positive language or by tempering optimism with statements that are less favorable. Though there are other costs and benefits for releasing optimistic statements, reducing the use of optimism in announcements appear to be a way to reduce litigation risk.

Methods - Study 2

For study 2, companies affected by securities class actions that did not meet the criterion for large stock price declines after disclosure are examined (see Table 3 for the list of companies in this study). It was noted that 31 companies that faced securities class action did not experience

a large decline, that is, their stock value did not decline by at least 10% on the disclosure date. For these companies that had stock values that behaved differently from the majority of the cases, further analysis was required. To examine this phenomenon, the stock prices and maximum dollar loss for these companies were recorded for the entire class action period to determine their trend and performance. Maximum dollar loss is defined as the difference between the stock price from its high during the class action period and its end date. Their Factiva news articles during this period were also examined to better understand the stock performance of these companies leading to the end of the class action period.

Results - Study 2

From Table 4, the 31 companies in study 2 had an average maximum disclosure loss of \$6.3 billion compared to \$3.03 billion for the 65 companies in study 1 that faced large losses on the disclosure date. The median value of the maximum disclosure loss was \$483 million. Twenty of these companies had a market capitalization at the peak of their respective class action period of greater than \$1 billion while 11 companies had less than \$1 billion in market capitalization. The average market capitalization for these 31 companies during the class action period was \$26.5 billion as compared to \$6 billion for the group that faced large losses on the disclosure date.

In analyzing headlines and news details for these 31companies, it was found that these companies did not have common themes in their headlines. The details in the news also showed wide variations and did not have common themes. However, the details that were found in Study 2 were also seen in study 1 with the exception of a few companies that were sued for disruptions in their business operations.

Discussion - Study 2

Study 2 sought to investigate the differences observed in a subset of the litigation group that did not meet with large decline after a negative disclosure. The results suggest that in most cases, there were no difference between the headlines and news within the litigation group for those that suffered large losses and those that did not. In a small subset of the sample, companies were sued for errors that did not create smooth business operations. For example, NASDAQ OMX was sued for glitches to its platform that led to erroneous trading prices during Facebook's first trading date. It is also not coincidental that the companies that did not suffer large percentage losses on their disclosure date were predominantly companies with large market capitalization. The average maximum dollar loss for the companies that did not experience a large disclosure loss was more than twice those that did. Furthermore, an analysis into the average market capitalization loss on the disclosure date between both groups indicates that these 31 companies had experienced a larger decline than those 65 companies in study 1.

One possibility to explain this phenomenon is that these 31 companies, while they incurred smaller losses in percentage terms on the disclosure date, the loss size was still substantially large in magnitude. This could be viewed as a firm-effect suggesting that the 31 companies in this study were relatively larger than the 65 companies in study 1 and also suffered sizeable losses but was masked by their large market capitalization. Another possibility is that these 31 companies had already suffered a larger loss when viewed in the context of maximum dollar loss instead of disclosure dollar loss. This might imply that the bad news might have been released in parts that caused the final piece of news to have less significant impact.

Methods - Study 3

As Chinese companies look to other developed countries to raise capital, there is a worrying trend as fraud committed by Chinese firms is also on the rise (Wang, 2012). Study 3 is

designed to look specifically into the Chinese companies that faced securities class action lawsuits and the common mistakes made by them. To investigate this situation, Chinese companies that faced securities class action litigation during 2012 are examined. Chinese companies comprised 14 out of 152 companies in this sample. The list of Chinese companies is provided in Table 5. Like study 1, the headlines and their respective details are analyzed for common themes. No comparables are used in this particular study.

Results - Study 3

Figure 5 shows the sector distribution for the 14 US-listed Chinese companies. Five of these companies had previously appeared in study 1 and four in study 2. The remaining five companies had never been used as part of this research due to insufficient stock price information.

The headline themes that surround these US-listed Chinese companies involved a lack of strong internal controls. Twelve of these companies had headlines explicitly announcing a lack of or weak internal controls while the remaining two companies failed to disclose negative trends in their businesses. Solely looking at the headline reports for these Chinese companies, there appears to be a distinction between them and the other non-Chinese companies that similarly faced class action litigations for this chosen year. However, the lack of strong internal controls could be traced back to almost every wrongdoing in an organization. The term itself does not speak much about whether the wrongdoings in a Chinese firm differ from that of a non-Chinese firm.

Beyond the headlines, details indicated that these twelve companies engaged in a variety of wrongdoings. There were situations where fake sales contracts were fabricated, large sums of money were transferred between the accounts of the parent and the subsidiary, improper

accounting methods used in consolidations and inability to provide the investing public with accurate information regarding financial statements and operations. The other two companies were guilty of not disclosing negative trends in their business operations such as losing customers and manufacturing poor quality products. Overall, these Chinese companies, through their weak internal controls, mislead shareholders into believing that their financial performances were sound and healthy.

Discussion - Study 3

China has experienced an explosive growth over the past 30 years and many Chinese enterprises have emerged over this period. Before 2000, Doidge et al. (2004) surveyed all foreign companies that were listed on the US stock exchanges and found that none were from mainland China. After 2005, the major exchanges in the US have seen a surge in Chinese companies being listed. By mid 2012, there were almost 300 Chinese firms listed on the three large US exchanges, which represents approximately five percent of all the firms listed there. There are also many others that trade Over-The-Counter (OTC) and on Pink Sheets (Wang, 2012).

There are various reasons why Chinese firms find overseas listings attractive, especially in the US. One possibility suggested is the need for Chinese firms to seek better financing environments and to raise capital at a lower cost. Lins et al. (2005) suggested that Chinese firms are attracted by the more developed, deep and liquid capital markets in the US with less credit constraints. Cross-listing provides the Chinese firms with an expanded and diversified shareholder base (Foerster & Karolyi, 1999). Others have argued that US-listed foreign firms adhering to the stricter and higher information disclosure requirements by the US exchanges would present a high quality signal to investors, thus empirically proving that cross-listed firms have a premium in stock pricing (Moel, 1999; Doidge et al., 2004).

As Chinese firms continuously expand their presence in the US capital markets, so do the scandals involving them. Chinese companies listed in the US have been criticized on the supposition that they lack good corporate governance and engage in improper accounting standards. Companies with poor governance structure have been found to provide managers with an incentive to commit accounting fraud and securities misconduct such as artificially inflating the company's earnings (Xie et al., 2003). One way that China could improve on its corporate reputation is to encourage or allow only the financially sound and well managed companies to list abroad. The other way is to educate US investors (or other foreign investors interested in Chinese companies) how to identify a well governed Chinese company. For example, Ang et al. (2012) found that when a Chinese firm is in the spotlight for a financial scandal, investors react irrationally by dumping all their US-listed Chinese stocks without differentiating the good Chinese companies from the bad ones. Their research pointed out some key elements on how to determine if a Chinese company is at risk of being a bad investment. The authors found that Chinese firms that gained US listing through reverse mergers, had higher levels of earnings management and a more autocratic corporate governance structure were at risk of being targets for financial scandals. Also, these firms tend to be domiciled in provinces with low levels of social capital and have more politically connected CEOs. They prefer to hire small audit firms, investment banks and law firms with low reputations.

The overall results in study 3 exhibit a key difference between Chinese and non-Chinese firms listed in the US. The majority of Chinese companies in this sample reveal a weakness in the corporate governance that results in financial scandals. CEOs who are also founders of the company might be running the company as a sole proprietorship even though the company has become publicly listed. This has implications to both Chinese companies that are already listed

in the US or planning to gain listing in the future. These Chinese companies have to be committed to retain their listing rights and uphold their reputation. Ang et al. (2012) observed that investors dumped all their Chinese stocks when one firm is revealed to have committed financial fraud, affecting all the other innocent financially sound Chinese companies. This suggests that investors in the US have developed a stereotype against Chinese companies that can only be broken by conducting themselves in a proper manner, observing the foreign and local regulations. Investors too, need to be take heed and perform more due diligence when they invest in Chinese companies to determine for themselves.

Conclusion

This research paper sought to understand investors' motivation to sue public listed companies. The approach taken was to identify comparable companies and examine differences in the headlines and news details. Apart from the obvious situations that could result in litigations such as fraud and financial restatements, one trend found was that sued firms use more optimistic statements than comparables. Comparables, on the contrary, adopt a more conservative approach by issuing forward-looking statements with warning signals when the company's financial performance has the likelihood of not meeting expectations. This helps to manage and update shareholders' expectation in a timely manner. Reduced optimism, especially when it is a doubtful situation, could prove to be useful for the litigation group going forward.

In the sample used for this research, it was surprising to find that about 20% of the litigation cases did not meet with large stock decline on the disclosure date. Further analysis revealed that there were minimal differences between cases with large stock declines and those without. This could be due to larger maximum disclosure losses faced by the company implying

that the bad news were released in parts, causing the final piece of news released on the disclosure date to have less significant impact.

In the final analysis, US-listed Chinese companies that faced class action litigation were examined for trends relative to their non-Chinese peers. Despite much research and efforts taken to improve the reputation of Chinese companies that list abroad, Chinese companies are still plagued by poor corporate governance. While there is a trend of over-optimistic statements being released by non-Chinese firms in study 1, Chinese firms that face similar class action litigation are also guilty of weak governance. Many global investors have witnessed the miracle economic growth of China and wish to participate in it by investing in Chinese firms. However, with weak corporate governance, this becomes risky. Research, as discussed in study 3, has already shown that investors have a bias against Chinese firms. It only takes one culprit and investors sell all their Chinese stocks without differentiating the good from the bad Chinese companies. Chinese firms have to improve their governance structure and maintain a credible reputation as they list abroad. Once an investor's trust is broken, it becomes hard to earn it back.

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Appendices

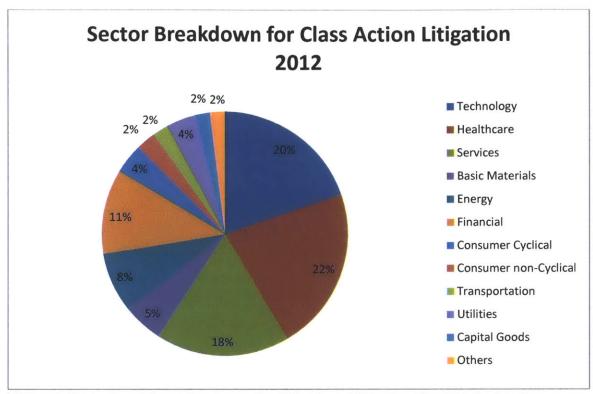


Figure 1. Sector breakdown for class action litigations 2012. The pie chart depicts the distribution of the 152 class action litigation cases for 2012 by sector. Source: The Securities Class Action Clearinghouse.

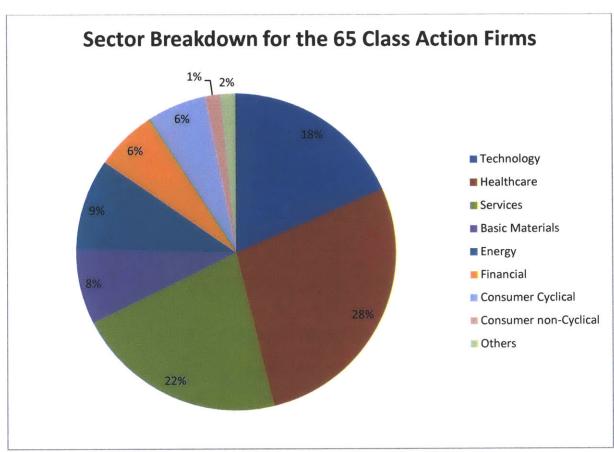


Figure 2. Sector breakdown for the 65 class action firms. The distribution of the 65 companies from the class action litigation group is shown in the pie chart above by sector. Source: Factiva database.

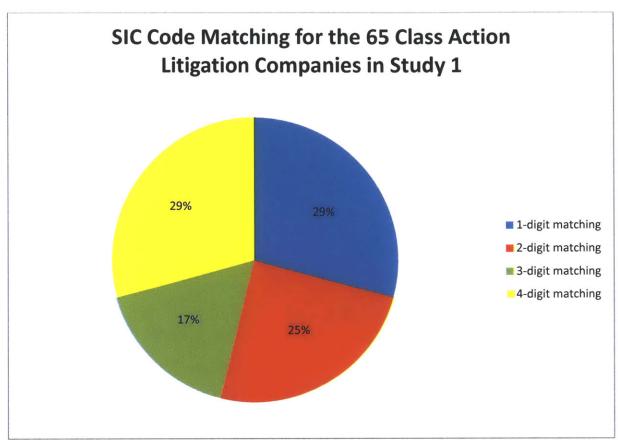


Figure 3. SIC code matching for the 65 class action litigation companies in study 1. The 65 comparable companies were chosen to match as closely as the litigation group based on SIC codes after controlling for market capitalization and disclosure loss. The distribution of the SIC codes for these comparable companies are shown in the pie chart. Source: Factiva database.

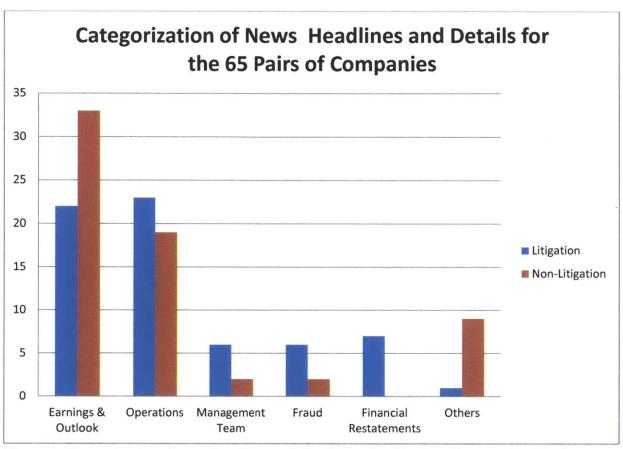


Figure 4. Categorization of news headlines and details for the 65 pairs of companies. The bar graphs indicate the number of cases for each category as determined by the news headlines for the 65 pairs of companies. Source: Factiva database.

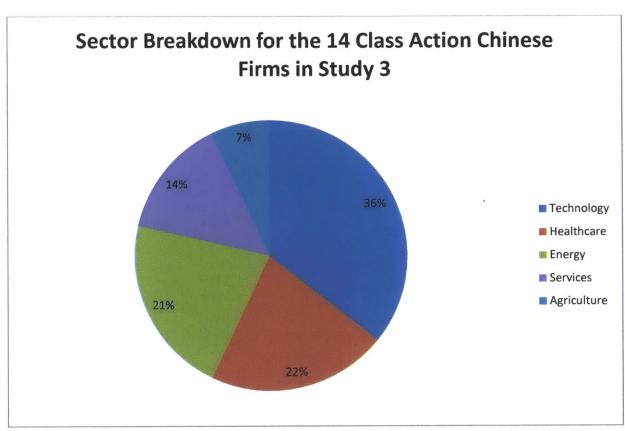


Figure 5. Sector breakdown for the 14 class action Chinese firms in study 3. The pie chart shows the breakdown of the 14 Chinese companies by sector. Source: The Securities Class Action Clearinghouse.

Case	Company	Class Action Period	Comparable	Date
1	Camelot Information Systems Inc	21 Jul 2010 - 17 Aug 2011	Pluristem Therapeutics Inc	27 January 2011
2	Chemed Corp	15 Sep 2011 - 16 Nov 2011	Select Medical Holdings Corp	8 August 2011
3	Career Education Corp	1 Jan 2009 - 1 Nov 2011	Exelixis Inc	1 November 2011
4	CPI Corp	20 Apr 2010 - 21 Dec 2011	CDC Corp	5 October 2011
5	Netflix Inc	20 Dec 2010 - 24 Oct 2011	Rovi Corp	9 November 2011
6	Trans1 Inc	21 Feb 2008 - 17 Oct 2011	China Nutrifruit Group Ltd	14 November 201
7	Collective Brands Inc	1 Dec 2010 - 24 May 2011	Aeropostale Inc	19 August 2011
8	Cablevision Systems Corp	16 Feb 2011 - 28 Oct 2011	Level 3 Communications Inc	8 August 2011
9	Health Management Associates Inc	27 Jul 2009 - 9 Jan 2012	Magellan Health Services Inc	31 July 2012
10	Hecla Mining Company	26 Oct 2010 - 11 Jan 2012	Aurico Gold Inc	5 September 2013
11	BioSante Pharmaceuticals Inc	12 Feb 2010 - 15 Dec 2011	Insmed Inc	2 August 2011
12	GenVec Inc	12 Mar 2009 - 30 Mar 2010	Affymax Inc	21 June 2010
13	Carbo Ceramics Inc	27 Oct 2011 - 26 Jan 2012	Dendreon Corp	27 February 2012
14	Powerwave Technologies Inc	1 Feb 2011 - 18 Oct 2011	Sequans Communications SA	28 July 2011
15	Eastman Kodak Company	26 Jan 2011 - 23 Sep 2011	Daktronics Inc	22 February 2011
16	New Energy Systems Group	15 Apr 2010 - 14 Nov 2011	Ener1 Inc	29 September 201
17	Kinross Gold Corp	16 Feb 2011 - 17 Jan 2012	Chesapeake Energy Corp	2 May 2012
18	SAIC Inc	11 Apr 2007 - 1 Sep 2011	Computer Sciences Corp	9 November 201
19	China Sky One Medical Inc	16 Mar 2009 - 14 Feb 2012	Porter Bancorp Inc	31 October 2012
20	Nevsun Resources Ltd	31 Mar 2011 - 6 Feb 2012	Novagold Resources Inc	26 July 2012
21	First Solar Inc	30 Apr 2008 - 28 Feb 2012	Cypress Semiconductor Corp	26 January 2012
22	Weatherford Inti Ltd	2 Mar 2011 - 21 Feb 2012	Chesapeake Energy Corp	11 May 2012
23	Swisher Hygiene Inc	16 May 2011 - 28 Mar 2012	Synacor Inc	10 July 2012
24	Hyperdynamics Corporation	17 Feb 2011 - 15 Feb 2012	Cal Dive International Inc	12 July 2012
25	Chelsea Therapeutics Intl Ltd	3 Nov 2008 - 28 Mar 2012	Targacept Inc	20 March 2012
26	Enterprise Financial Services Corp	20 Apr 2010 - 25 Jan 2012	Hudson Valley Holding Corp	1 February 2012
27	Delta Petroleum Corp	9 Nov 2010 - 9 Nov 2011	Crystallex International Corp	7 February 2011
28	NeurogesX Inc	9 May 2011 - 27 Sep 2011	Adeona Pharmaceuticals Inc	28 January 2011
29	Accretive Health Inc	2 Mar 2011 - 24 Apr 2012	Irobot Corp	9 February 2012
30	Houston American Energy Corp	29 Mar 2010 - 18 Apr 2012	Oxford Resource Partners LP	29 February 2012
31	Allscripts Healthcare Solutions Inc	9 Nov 2010 - 26 Apr 2012	Webmd Health Corp	10 January 2012
32	Magna Inti Inc	12 Jan 2011 - 5 Aug 2011	Ingersoil Rand PLC	30 September 20:
33	Viropharma Incorporated	14 Dec 2011 - 9 Apr 2012	New York Times Co	25 October 2012
34	KIT Digital Inc	8 Nov 2011 - 3 May 2012	Synacor Inc	26 July 2012
35	Orrstown Financial Services Inc	24 Mar 2010 - 27 Oct 2011	Southwest Bancorp Inc Okla	26 July 2011
36	Deckers Outdoor Corp	27 Oct 2011 - 26 Apr 2012	Crocs Inc	25 October 2012
37	Moduslink Global Solutions Inc	26 Sep 2007 - 8 Jun 2012	Hugoton Royalty Trust	22 May 2012
38	LHC Group	30 Jul 2008 - 26 Oct 2011	Skilled Healthcare Group	29 April 2011
39	UBS AG	15 Mar 2011 - 15 Sep 2011	American International Group Inc	8 August 2011
40	Centene Corp	7 Feb 2012 - 8 Jun 2012	Health Net Inc	3 August 2012
41	Big Lots Inc	2 Feb 2012 - 23 Apr 2012	Inergy LP	27 January 2012
42	Barclays PLC: American Depository Receipts	10 Jul 2007 - 27 Jun 2012	Bancorpsouth Inc	18 January 2012
43	Bridgepoint Education Inc	3 May 2011 - 12 Jul 2012	Amedisys Inc	9 May 2012
44	Ignite Restaurant Group Inc	10 May 2012 - 18 Jul 2012	Chefs Warehouse Inc	4 May 2012
45	Lime Energy Co	13 May 2010 - 17 Jul 2012	RIT Technologies Ltd	12 July 2012
	New Oriental Education and Technology Group Inc	21 Jul 2009 - 17 Jul 2012	Pandora Media Inc	7 March 2012
47	Radioshack Corp	26 Jul 2011 - 24 Jul 2012	Roundys Inc	10 August 2012
48	Suntech Power Holdings Co Ltd	18 Aug 2010 - 30 Jul 2012	Audiocodes Ltd	26 March 2012
49	Chipotle Mexican Grill Inc	1 Feb 2012 - 19 Jul 2012	Herbalife Ltd	1 May 2012
50	Monster Beverage Corp	23 Feb 2012 - 9 Aug 2012	Monster Beverage Corp	23 October 201
51	Body Central Corp	10 Nov 2011 - 18 Jun 2012	Zogenix Inc	10 December 201
		•	Universal Technical Institute Inc	28 November 20
52 52	Assisted Living Concepts Inc	12 Mar 2011 - 6 Aug 2012	Vertex Pharmaceuticals Inc	2 November 201
53	Vertex Pharmaceuticals Inc	7 May 2012 - 28 Jun 2012		2 October 2012
54	Zagg	28 Feb 2012 - 17 Aug 2012	Radioshack Corp	6 November 2012
55	Ubiquiti Networks Inc	14 Oct 2011 - 9 Aug 2012	Servicesource International Inc	·
56	Peregrine Pharmaceuticals Inc	16 Jul 2012 - 21 Sep 2012	Arquie inc	2 October 2012
57	OCZ Technology Group Inc	10 Jul 2012 - 10 Oct 2012	Silicon Graphics International Corp Plexus Corp	10 May 2012
58	Abiomed Inc	5 Aug 2011 - 31 Oct 2012		7 November 201
59	Hewlett-Packard Company	19 Aug 2011 - 20 Nov 2012	Arcelormittal SA Luxembourg	2 August 2012
60	Align Technology Inc	23 Apr 2012 - 17 Oct 2012	Polycom Inc	5 April 2012
61	SandRidge Energy Inc	24 Feb 2011 - 8 Nov 2012	Interoil Corp	5 April 2012
62	St Jude Medical Inc	17 Oct 2012 - 20 Nov 2012	Edwards Lifesciences Corp	3 February 201
63	Groupon Inc	14 May 2012 - 8 Nov 2012	Tesla Motors Inc	13 January 2012
64	ISIS Pharmaceuticals Inc	29 Mar 2012 - 15 Oct 2012	Vivus Inc	6 November 201
	Silvercorp Metals Inc	24 Jun 2010 - 13 Sep 2011	Silver Standard Resources Inc	10 November 201

Table 1: The table lists the 65 companies that were used for the analysis in study 1 together with their class action periods. Comparable companies are also listed and the dates indicate the day these comparable companies met with a large stock decline. Source: The Securities Class Action Clearinghouse.

	Litigation	Non-Litigation
Total Market Cap Loss (\$millions)	\$37,984	\$31,266
Average Market Cap Loss (\$millions)	\$584	\$481
Q1 Market Cap Loss (\$millions)	\$65	\$85
Q3 Market Cap Loss (\$millions)	\$678	\$469
Average Returns on Disclosure Date	-27.74%	-25.59%

Table 2: Descriptive statistics between the litigation and comparable group for study 1 are listed as follows. Source: The Securities Class Action Clearinghouse.

Case	Company	Class Action Period	
1	Metlife Inc	2 Feb 2010 - 6 Oct 2011	
2	K12 Inc	9 Sep 2009 - 16 Dec 2011	
3	Columbia Laboratories Inc	30 Jan 2008 - 16 Sep 2008	
4	The Student Loan Corporation	15 Jan 2008 - 23 Sep 2010	
5	CNOOC Ltd	27 Jan 2011 - 16 Sep 2011	
6	Medtronic Inc	20 Nov 2006 - 12 Mar 2012	
7	China Natural Gas	10 Mar 2010 - 21 Sep 2011	
8	Chesapeake Energy Corp	30 Apr 2009 - 17 Apr 2012	
9	AOL Inc	11 Aug 2011 - 9 Apr 2012	
10	Wal-Mart Stores Inc	8 Dec 2011 - 20 Apr 2012	
11	JPMorgan Chase & CO.	13 Apr 2012 - 11 May 2012	
12	St Jude Medical Inc	15 Dec 2010 - 4 Apr 2012	
13	American Oriental Bioengineering Inc	9 Nov 2009 - 15 Jun 2012	
14	General Motors Company	18 Nov 2010 - 29 Jun 2012	
15	Nasdaq OMX Group Inc	18 May 2012 - 18 May 2012	
16	Eaton Corp	2 Aug 2009 - 4 Jun 2012	
17	Hewlett Packard Company	13 Nov 2007 - 6 Aug 2010	
18	Network Engines Inc	19 Jun 2012 - 9 Aug 2012	
19	Alpha Natural Resources Inc	1 Jun 2011 - 1 Jun 2011	
20	Prudential Financial Inc	5 May 2010 - 2 Nov 2011	
21	DGSE Companies Inc	15 Apr 2011 - 17 Apr 2012	
22	China Agritech Inc	12 Nov 2009 - 11 Mar 2011	
23	Chanticleer Holdings Inc	21 Jun 2012 - 10 Sep 2012	
24	Overseas Shipholding Group Inc	4 May 2009 - 19 Oct 2012	
25	Envivio Inc	24 Apr 2012 - 19 Oct 2012	
26	Tennessee Commerce Bancorp Inc	18 Apr 2008 - 13 Sep 2012	
27	Blyth Inc	14 Mar 2012 - 6 Nov 2012	
28	Sinohub Inc	17 May 2010 - 21 Aug 2012	
29	Hi-Crush Partners LP	16 Aug 2012 - 21 Nov 2012	
30	CommonWealth REIT	10 Jan 2012 - 8 Aug 2012	
31	New Jersey Resources Corp	12 Dec 2012 - 12 Dec 2012	

Table 3: The list shows the companies from the litigation group that did not experience large stock decline on the disclosure date which was used for study 2. Source: The Securities Class Action Clearinghouse.

	31 Companies from Study 2	65 Companies from Study 1
Average Market Cap Loss from High (\$millions)	\$6,301	\$3,033
Median Market Cap Loss from High (\$millions)	\$483	\$789
Q1 Market Cap Loss from High (\$millions)	\$161	\$371
Q3 Market Cap Loss from High (\$millions)	\$8,458	\$2,533
Average Market Cap during High (\$millions)	\$26,528	\$6,008
Average Market Cap Loss on Disclosure Date (\$millions)	\$826	\$584
No. of Companies with Market Cap during high that was less than \$1 Billion	11	26

Table 4: The table shows comparative descriptive statistics between the companies from the litigation group that experienced large market capitalization loss on the disclosure date and those that did not. Source: The Securities Class Action Clearinghouse.

Case	Company	Class Period
1	Camelot Information Systems Inc	21 Jul 2010 - 17 Aug 2011
2	New Energy Systems Group	15 Apr 2010 - 14 Nov 2011
3	China Sky One Medical Inc	16 Mar 2009 - 14 Feb 2012
4	CNOOC Ltd	27 Jan 2011 - 16 Sep 2011
5	China Natural Gas	10 Mar 2010 - 21 Sep 2011
6	Qiao Xing Universal Resources Inc	15 July 2011 - 16 Apr 2012
7	China-Biotics Inc	9 Feb 2011 - 1 Jul 2011
8	Chinacast Education Corp	14 Feb 2011 - 2 Apr 2012
9	Tibet Pharmaceuticals Inc	28 Dec 2010 - 25 May 2012
10	New Oriental Education and Technology Group Inc	21 Jul 2009 - 17 Jul 2012
11	Suntech Power Holdings Co Ltd	18 Aug 2010 - 30 Jul 2012
12	China Agritech Inc	12 Nov 2009 - 11 Mar 2011
13	Sinohub Inc	17 May 2010 - 21 Aug 2012
14	Qiao Xing Mobile Communication Company Ltd	10 Sep 2010 - 2 May 2012

Table 5: The list shows the names of the Chinese companies that experienced class action litigation in 2012 which were used in study 3. Source: The Securities Class Action Clearinghouse.