

ON THE DYNAMICS OF SECURITIES CLASS ACTION LITIGATION

Mira Chaghouri

A Thesis

In

The John Molson School of Business

Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Science in Administration (Finance) at
Concordia University
Montreal, Quebec, Canada

April 2004

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Abstract

We use a unique sample of 1,478 securities class action lawsuits, filed against publicly traded US firms between 1996 and 2002, and a sample of 1,282 class action settlements, announced between 1993 and 2002, to examine the wealth effects of securities class action litigation on defendant firms and individual plaintiffs. To gain an insight into the costs and benefits of securities class actions, the first part of our study examines the cash flows between all parties involved in a lawsuit. In particular, we focus our attention on the wealth effects a securities class action filing has on the “new” and “old” shareholders of the firm, i.e. the current shareholders who bear the costs of the litigation process and the plaintiffs who receive a portion of the eventual settlement. To the extent possible, we focus our attention on directly measurable cash flows between these parties.

A second part of our study employs a large sample analysis of the stock market reaction to securities class action lawsuits and settlement announcements. This approach provides a better insight into the market’s valuation of both the direct and indirect costs that a company incurs as a result of a lawsuit and the resolution of a lawsuit through a settlement agreement. Here, we also examine the impact that the filing of a securities class action lawsuit and the settlement of such a lawsuit have on the survivability of the defendant firm.

The last part of our study examines the impact of two recent security law reforms, the 1995 Private Securities Litigation Reform Act and the 1998 Securities Litigation Uniform Standards Act, on litigation and settlement activity. Both of these Acts were passed by Congress in an effort to reduce the litigation risk borne by US corporations.

Acknowledgments

I would like to thank my supervisor Dr. Thomas Walker for his assistance, patience, and help throughout the process of this research. He introduced me to the subject and assisted me in shaping the research by his constructive comments.

I would like also to express my appreciation to Dr. Basu and Dr. Soufani for their respective participation and valuable comments. Furthermore, I would like to convey my deepest gratitude to Mr. Anas Aboulamer who helped me in the whole process: “I couldn’t have done it without you”.

Finally, I would like to dedicate my work to my beloved parents, Bebz and Hebz, my brother Ziad and my little sous Maya, who were always there for me and supported me all the way.

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Chapter 1: Introduction

In recent years, a number of significant corporate lawsuits have captured the attention of the financial community. Several of these cases have endangered the very existence of the defendant company.

One of the most prominent securities class action lawsuits in recent history was that against Enron Corporation. The October 22, 2001, lawsuit alleges that the firm's officers issued materially false and misleading statements to the investing public regarding Enron's financial condition, operations and transactions, causing the firm's stock price to be artificially inflated, and facilitating large insider sale transactions at those inflated prices. The complaint further alleges that Enron's auditor, Arthur Andersen LLP, issued materially misleading audit opinions when it was aware of, or recklessly disregarded, facts indicating that Enron's financial statements did not conform to Generally Accepted Accounting Principles. The discovery of Enron's misconduct led to a widespread selling panic among investors. While the facts surrounding Enron's fraudulent transactions continued to be unraveled in the following weeks, investors' selling carried on. The market's fear was well founded as Enron ultimately declared bankruptcy on December 14, 2001. In the following months, investors' confidence in the corporate world was further destroyed when other high-profile firms such as WorldCom, Adelphia Communications and Imclone were sued for similar securities fraud in highly popularized class actions.

Dunbar et al. (1996), SEC (1997) and Bajaj et al. (2000) note that the number of securities class action lawsuits against US companies has been increasing since the early 1990's, reaching an all-time high in 2001 (449 cases), up from 197 cases that were filed

in 2000. Although cases like those against Enron and WorldCom are clearly justified, Alexander (1993) points out that not every lawsuit is necessarily well founded. She notes that there is a real possibility that a significant portion of lawsuits may be unmerited. Alexander studies IPO-related lawsuits and describes an IPO share as consisting of two components – a share of stock, and a “litigation put” entitling investors to recover a portion of any ensuing market losses if the stock price falls sufficiently. She also notes that there is a large incentive for investors and plaintiff lawfirms to “exploit” a firm’s stock price drop by filing suit in hopes of extracting a settlement from the firm. Sued firms, facing significant direct and indirect litigation costs through costly discovery procedures, diversion of management time and loss of reputation capital, have an incentive to settle such lawsuits even if the firm and the officers are innocent. The legal and financial literature (c.f. Alexander (1991, 1993), Dunbar et al. (1996), Lowry and Shu (2002) and Turtle and Walker (2004)) agrees that a declining stock price increases a firm’s litigation risk. Because stock prices vary on a daily basis and price declines may be caused by various factors outside of the firm’s control (such as general market or industry downturns, bad macroeconomic or industry-specific news, etc.), a firm may become the target of a securities class action lawsuit even if it did not violate any security law. The cost of settling securities class action litigation has increased considerably: securities class action cases resolved between 1998 and the end of 2002 settled for an average of \$15.90 million; this compares to an average of \$8.33 million for cases that settled between 1993 and 1997. The increase remains highly significant after adjusting for inflation and, together with an increase in litigation activity during the same time, suggests that litigation has not only become more costly but also more frequent in recent

years. We observe that settlement amounts are generally right-skewed: 69.2 percent of the cases in our 1993-2002 sample period settled for less than \$10 million, while 1.6 percent settled for more than \$100 million. The largest securities class action settlement recorded in recent history was that by Cendant Corporation, which settled for \$3.186 billion in August 2000.

Given that plaintiffs and the lawfirms which represent them have to weigh a potentially very large settlement against the uncertainty of passing the defendants' motions to dismiss a case and the costs associated with a lawsuit, the resolution to prosecute becomes in essence an investment decision. Whether or not to file a lawsuit and what actions to undertake after the filing depend on the net present value of the costs and benefits.

The remainder of this chapter is organized as follows: we first review two prominent securities laws, the 1933 Securities Act and the 1934 Securities Exchange Act. The 1933 Securities Act pertains to the initial issuance of securities and is invoked in all IPO-related class action lawsuits. The 1934 Securities Exchange Act governs all secondary market transactions and is invoked in cases against firms that are already trading on an organized exchange. In addition, we review two major reforms to these laws which were instituted during our sample period: the 1995 Private Securities Litigation Reform Act (PSLRA) and the 1998 Securities Litigation Uniform Standards Act (SLUSA). We then discuss our data sources and describe the variables used in our empirical analysis. Our litigation database extends from January 1996 to December 2002 and is constructed using data from Stanford University's "Securities Class Action Clearinghouse", an online database maintained by Stanford's Law School and Cornerstone Research. Our

settlement database covers the period from January 1993 to December 2002 and is constructed using information from the “Securities Class Action Alert”, a monthly newsletter published by Institutional Shareholder Services (ISS). We present descriptive summary statistics of both lawsuits and settlements along various dimensions. We focus our attention on the impact of legislative changes, i.e. the 1995 PSLRA and the 1998 SLUSA on litigation and settlement activity. In chapter 2 to 5, we present our actual analysis. Every chapter follows the same pattern. First, we provide a literature review related to the theme of the chapter. We then state the hypotheses to be tested and the methodologies used. Finally, we provide and interpret the results.

In chapter 2, we use event study methodology to examine the short-and long-term effects of lawsuit and settlement announcements on the stock performance of sued firms. In addition, we examine the driving factors behind the market’s reaction to lawsuit and settlement announcements. In particular, we explore whether the nature of the complaint, the defendant firm’s industry, its size, or its exchange listing can explain the market’s reaction to a lawsuit announcement. We perform a similar analysis for settlement announcements and explore whether the above factors as well as the annualized percentage price drop during the class action period explain the stock market’s reaction to these announcements. Finally, we examine the ability of sued firms to “survive” a lawsuit and a settlement, employing delisting information provided by the Center for Research in Security Prices (CRSP).

In chapter 3, we evaluate the effectiveness of securities class action litigation by comparing investors’ reimbursement relative to their actual losses.

In chapter 4, we focus on the impact of the 1995 PSLRA and the 1998 SLUSA on litigation and settlement activity. Both Reform Acts were passed by Congress with the stated intent to reduce the litigation burden for US firms. Dunbar et al. (1996) and SEC (1997) document that the 1995 PSLRA was largely ineffective, because plaintiff firms, in order to avoid the strict provisions of the PSRLA, moved from federal to state courts, where the PSLRA did not apply. By passing the 1998 SLUSA, Congress forced all plaintiffs, with a few exceptions, to file suit in federal court. Our analysis examines the major provisions of the two Reform Acts and tests whether they truly had an impact on the post-1998 SLUSA litigation environment.

In chapter 5, we conclude our analysis with an investigation of the driving forces behind litigation frequency and settlement amounts. We are particularly interested in answering the question whether litigation activity increases after unrelated market downturns, which would provide support for Alexander's (1993) notion that plaintiffs and their lawfirms exploit such downturns to recover investment losses from even innocent firms. In addition, we investigate whether large firms with presumably "deep pockets" pay larger settlement funds than smaller firms. This would again indicate that plaintiffs focus less on the merits of a particular case but rather on the settlement amounts they can potentially extract from the defendant firm.

1.1 Review of the US securities laws

In the last century, US Congress has issued several laws that aim to protect investors from securities fraud by parties involved in primary and secondary market transactions.

We consider the following laws:

- The **Securities Act of 1933** is the first congressional law regulating the securities industry. This act makes sure that investors receive financial and other significant information concerning securities being offered for public sale, and prohibits deceit, misrepresentations, and other fraud in the sale of securities. Thus, this act grants the right for any IPO investor to sue every person who signed the registration statement if the prospectus concealed adverse material facts or misled investors with false statements. Once in the market, any consequent transfer of securities is regulated under another federal law, the Securities Exchange Act of 1934.
- The **Securities Exchange Act of 1934**, hereafter the “Exchange Act” deals with post-issuance aspects of securities transactions and the regulation of the securities markets. The Exchange Act imposes registration requirements for exchange traded and non-exchange traded securities and forbids the manipulation of securities prices and the use of deceptive procedures in association with the purchase or sale of certain types of securities. It also establishes legal liability for those who make false or misleading statements not conforming to the Exchange Act (c.f. Wolensky and Gellen (1999)). The Exchange Act has been amended several times over the past seventy years. The most recent reforms include the Private Securities Litigation Reform Act (PSLRA) of 1995 and the Securities Litigation Uniform Standards Act (SLUSA) of 1998.
- The **PSLRA** was passed by Congress on December 22, 1995, in order to increase the flow of information to investors. It was the first law to revise the 1933 and 1934 Acts. In passing the Reform Act, Congress was "prompted by significant

evidence of abuse in private securities lawsuits," including the routine filing of lawsuits against public companies allegedly based upon nothing else than a stock price drop, the targeting of "deep pocket" defendants, abuse of the discovery process and manipulation by class action lawyers of their clients. Responding to these abuses, Congress heightened the pleading requirement for scienter (the requisite mental state for 10b-5 claims under the 1934 Securities Exchange Act), created a "safe harbor" for companies issuing forward-looking statements and established an automatic stay of discovery until the plaintiffs drafted a complaint strong enough to withstand a motion to dismiss. Congress recognized that discovery is often expensive and time consuming and that even the threat of litigation (and the associated discovery) may prompt a company to settle rather than defend a meritless action.¹ Preventing costly discovery until a complaint is deemed viable by the court was seen as one way to ensure that investors could still bring valid claims in federal court, while affording public corporations greater protection against abusive litigation. Furthermore, the Act attempted to reduce the "rush to the courthouse", which was common before 1995 as courts appointed lead plaintiffs and their lawyers on a "first come, first served" basis.²

¹ The 1995 Reform Act protects defendants by imposing a discovery stay when a motion to dismiss the complaint has been filed, thus sparing defendants the costs of discovery until the court has determined that the allegations of the complaint have merit. Before the Act was enacted, plaintiff's lawyers were free to impose large costs on defendants in the form of discovery requests. According to the SEC (1997), the availability of wide-ranging discovery gave plaintiff lawfirms an incentive to file frivolous lawsuits in hopes of finding a sustainable claim during the discovery proceedings that was not alleged in the complaint. Faced with the cost of discovery, the incentive for defendants to settle was enormous, and may have forced innocent parties to settle unmerited securities class actions.

² The position of lead plaintiff was prestigious and lucrative both to the plaintiff and counsel. Early Senate Reports charged that plaintiffs' lawyers recruited "professional plaintiffs" who own a token number of shares in many companies and regularly lend their names to lawsuits. These plaintiffs received payment of a "bonus" far in excess of their share of any recovery. Since the Act has been enacted, the investor with the largest financial damage claim is assumed to be the best representative of the class and is typically nominated as lead plaintiff.

Finally, The Act protects “secondary” defendants, such as accountants and corporate counsel, by adopting a system of proportionate, rather than joint- and several-liability (cf., SEC (1997)). Martin and Metcalf (2001) Dunbar et al. (1998) and SEC (1997) point out that as a consequence of its implementation, a significant number of plaintiffs shifted from federal to state courts to avoid the strict provisions of the PSLRA, which prevented the Act from achieving its objectives. To remedy this problem and force all plaintiffs (with a few exceptions) to comply with the PSLRA provisions, Congress passed the Securities Litigation Uniform Standards Act (SLUSA) on May 13, 1998.

- The **SLUSA** amends the Securities Act of 1933 and the Securities Exchange Act of 1934. The legislation forces plaintiff parties to file suit in federal courts, under the provisions of the PSLRA, in an attempt to shield the interests of shareholders and employees of public companies that are the target of meritless “strike” suits. Bliley et al. (1998) describe a “strike” suit as a lawsuit that is intended to extract considerable settlements from companies that are strained to settle, regardless of the lack of merits of the suit, simply to evade the potentially bankrupting expense of litigating. The Act defines “class actions” to include any lawsuits or group of lawsuits where damages are sought on behalf of more than 50 persons thus capturing “mass actions” and excluding shareholder derivative actions and actions by groups of less than 50 persons.

1.2 Sample description

Our analysis considers lawsuits against seasoned firms as well as IPO firms. We organize our data in two databases that we use throughout the study in order to assess our

hypotheses. Our first database contains information on 1,687 securities class action cases filed between January 1996 and December 2002. The data was collected from Stanford's *Securities Class Action Clearinghouse* (<http://securities.stanford.edu>). The Securities Class Action Clearinghouse, administered by Stanford's Law School in cooperation with Cornerstone Research, provides detailed information on all securities class actions filed in US courts since 1996. We exclude firms which are not listed on CRSP or which are missing important information crucial for our study. The resulting sample consists of 1,478 securities class action lawsuits. For each lawsuit in our sample, we collect information on the filing date, the beginning and end of the class action period, the nature of the alleged securities law violations, the law under which the firm was sued, the nature of the lead defendant, the jurisdiction and the court circuit in which the lawsuit was filed, and the current stage or eventual outcome of the case.

In our second database, we gather information on securities class action settlements from the *Securities Class Action Alert* (SCAA), a monthly newsletter published by the Securities Class Action Services Division of Institutional Shareholder Services (ISS). The Securities Class Action Alert tracks all securities class action lawsuits filed in federal and state courts since 1988. This data set contains detailed information on 1,839 securities class action cases that were settled in the period from January 1993 to December 2002. For each publicly announced settlement, the SCAA provides a rich set of settlement information including, for example, the settlement amount, the plaintiff and defendant parties and their legal representation, the beginning and end of the class action period, the nature of the alleged securities law violation, the types of securities involved, the

jurisdiction and the court circuit in which the lawsuit was filed, attorneys' fees and additional plaintiff awards. We eliminate settlements by foreign firms with ADRs listed on a US exchange, non-publicly traded firms such as partnerships and sole-proprietorships, mutual funds, unit trusts and other investment organizations, real estate investment trusts (REITs), municipalities, and any state or federal government entities, and individuals and other entities.^{3,4} In addition, we exclude settlements for which the SCAA provides incomplete settlement details and settlements by firms that we were unable to identify on CRSP. The resultant settlement data set includes 1,282 settlements. Due to the unavailability of the exact settlement date in the SCAA issues, we accessed Lexis-Nexis and identified 443 firms for which we could determine an exact settlement date. We use this limited subsample for both our event study and the corresponding regression analysis. For our summary statistics and univariate tests we consider all 1,282 settlements and use the middle of the month prior to the SCAA issue date as a proxy for our settlement date.

We collect daily returns for all firms in our lawsuit and settlement databases from the Center for Research in Securities Prices (CRSP). In addition, we retrieve information about the exchange (NASDAQ, NYSE or AMEX) on which the company traded when it was sued or settled, the firm's market capitalization one week prior to its filing/settlement

³ Due to its unusual size (\$3.186 billion), we also exclude the August 2000 settlement by Cendant Corporation from our settlement sample.

⁴ In many cases, settlements consisted of both cash and non-cash methods of payment such as stocks, bonds, warrants, and real goods and services. As an example, in the Primerica 1998 settlement, \$6 million in discount and gift certificates for the firm's products and services were granted. Whenever possible, we convert non-cash portions of settlements into a cash equivalent value.

date⁵ and its SIC codes from CRSP. To group firms into industry sectors, we truncate each SIC code and follow Breeden et al's (1989) 12-industry classification (see Table 3). In addition, we collect delisting dates and codes from CRSP in order to examine the survivability of firms following a lawsuit or settlement announcement. Finally, we collect the number of outstanding shares for each firm from CRSP. This data is used in the evaluation of several settlement-related hypotheses.

1.3 Summary statistics

1.3.1 Litigation activity 1996-2002

Table 1 presents summary statistics for the number of securities class action lawsuits across years and across various subsamples.

**** Insert Table 1 about here ****

We observe that the year 2001 had the highest rate of lawsuit filings. During that year, 449 lawsuits were filed – more than twice the sample average. In 1998, the year the SLUSA was implemented, we have the second highest number with 213 cases. In addition, when comparing litigation activity across subsamples, we observe that average litigation rates increased considerably after the 1998 SLUSA. After passage of the SLUSA, the average litigation rate rose by more than 114 cases per year or 84.8 percent. Although these figures suggest that the SLUSA failed in reducing litigation risk, they should be viewed with caution. In particular, we identify 281 so-called “laddering” cases in 2001 and 16 such lawsuits in the remainder of our sample that were brought against IPO underwriters by the Securities and Exchange Commission (SEC). In these lawsuits, plaintiffs generally contend that the underwriters engaged in illegal tactics by soliciting

⁵ We consider the firm's market capitalization one week prior to its lawsuit/settlement date to avoid a possible dilution effect that may arise if the lawsuit/settlement was anticipated by the market.

and receiving “kickbacks” in exchange for allocations of portions of a company’s IPO, required “tie-in” purchases creating an artificial demand for the stock, and artificially inflated the price of the stock through “laddering” (requiring purchases of additional stock in the aftermarket at escalating prices). These 297 lawsuits differ from “standard” IPO lawsuits that generally allege that issuers engaged in fraud when describing their own business or financial circumstances. Another trend that has only recently emerged is the filing of so-called “analyst” cases. In these cases, plaintiffs allege that brokerage firm analysts falsely provided favorable coverage for certain issuers. We identify 6 such analyst cases in our sample. These complaints generally do not allege that an issuer has engaged in any wrongdoing and are therefore distinguishable from the large majority of lawsuits otherwise represented in the database. Given the inherently different nature of these laddering and analyst cases, a majority of which were filed in 2001 and 2002, we decided to calculate an adjusted post-SLUSA average that excludes these cases and arguably provides a better indication of recent litigation trends. The adjusted average in the post-SLUSA period is 184.75, which represents a 37 percent increase over the pre-SLUSA period. Given the apparent increase in litigation activity following the “burst of the internet bubble”, the question arises whether litigation activity may be driven by overall market conditions. Some practitioners argue that the sudden onslaught of these laddering and analyst cases is largely attributable to recent market downturns. Proponents of this hypothesis argue that without a sufficient decline in a firm’s stock price, plaintiffs would not be able to claim large enough damages to make a lawsuit economically viable. In fact, the notion that poor market and poor stock performance lead to increased

litigation activity dates back to Alexander (1991, 1993). We will explore this hypothesis in a later section.

The following table categorizes our sample according to various types of allegations based on case descriptions provided by Stanford's Securities Class Action Clearinghouse.

**** Insert Table 2 about here ****

Similar to Bajaj et al. (2000), we classify cases in eleven categories based on the nature of the alleged security law violations. Each case is assigned to one or more of the following categories: (1) IPO laddering cases (2) misrepresentations or omissions of material information from a firm's IPO prospectus and other IPO related cases; (3) misleading or false statements made by seasoned firms⁶; (4) failure to disclose material adverse information and known risks about the firm's future (including overoptimistic forecasts); (5) failure to disclose existing business problems in the firm's past; (6) artificial inflation of financial results (including mandatory revenue restatements); (7) improper accounting practices and violations of GAAP; (8) fraudulent transactions; (9) insider trading violations; (10) inflated analyst recommendations and misleading research reports; and (11) other or unknown allegations. From this table, we observe that allegations of firms making "misleading or false statements" (ALLEG03) is the predominant claim in securities class action cases. More than 20 percent of all firms in our sample were sued under this category. Firms failing to disclose existing business problems in their past (ALLEG05) is the second most frequent allegation against seasoned firms. The non-disclosure of past business problems is asserted in 13.64 percent of the cases filed during our sample period. Interestingly, the average annual filing rate in

⁶ This category is very general. Plaintiffs claim a variety of motives why defendant firms make false or misleading statements including artificial stock price inflation to facilitate mergers & acquisitions, or managers attempting to hide temporary or permanent business problem.

each case category (other than fraudulent transactions (ALLEG08)) increases after the 1998 SLUSA. When we calculate percentage changes in filing rates from the pre-SLUSA to the post-SLUSA period, we observe that allegations of improper accounting practices and violations of GAAP increased the most (81 percent), which is consistent with recent news announcements about accounting fraud by such high-profile firms as Enron and WorldCom. The categories entitled ALLEG01 and ALLEG10 represent the above-mentioned laddering and analyst cases. Because firms are generally listed as co-defendants in these cases, they should be distinguished from other case categories.

The following table presents litigation activity by industry sector.

**** Insert Table 3 about here ****

We observe that companies in the services sector were most frequently the target of securities class action litigation with 32.68 percent of all cases. In contrast, the construction sector shows the lowest litigation activity with only 0.47 percent of all cases. We observe a significant increase in litigation activity across all sectors in 2001, which is largely driven by the above-mentioned 281 IPO laddering cases filed during that year. A majority of these cases was filed against firms in the services industry. In fact, in 2001, 156 out of the 211 cases in this sector are laddering related. The services sector includes all software and Internet firms, which represented a majority of the “hottest” IPOs in 1999/2000. The ultimate failure of many of these firms may explain the high frequency of litigation in this sector. We observe a similar increase in litigation activity in all but two industry sectors, Capital Goods and Leisure. These two industry sectors experienced a decline in litigation activity after the 1998 SLUSA.

The following table provides summary statistics for the number of lawsuits filed in each court circuit. For a detailed description of each circuit please refer to Appendix 1.

**** Insert Table 4 about here ****

Perino (2002) notes that after the implementation of the PSLRA's "heightened pleading standard" provision, the Ninth Circuit has adopted the most accurate version of the pleading standard, which requires plaintiffs to implore strong circumstantial evidence of "deliberate recklessness". Perino also notes that, in contrast, the Second Circuit follows the least restrictive interpretation of the PSLRA pleading standard. We observe that 33.9 percent of lawsuits are filed against firms traded in the Second Circuit which comprises Connecticut, New York and Vermont. However, it is worth to mention that 280 out of the 501 cases in Circuit 2 were laddering cases. We also observe high litigation activity in the Ninth Circuit with almost 22.19 percent of all cases. The Ninth Circuit is the largest in terms of territory and includes, besides several other states, the state of California. The concentration of high-tech firms in California's Bay Area explains the high litigation activity in this circuit. It is worth mentioning that litigation frequency has increased since the implementation of the 1998 SLUSA in all the circuits except the Third one as shown in the last two columns of Table 4.

Table 5 presents summary statistics for the number of lawsuit by exchange.

**** Insert Table 5 about here ****

We observe that 61.57 percent of firms that were sued during our sample period traded on the NASDAQ, whereas 28.15 percent traded on NYSE and 2.1 percent traded on the AMEX. After the 1998 SLUSA, lawsuit frequencies increased by 68 percent, 75 percent and 116 percent respectively for the NYSE, AMEX and NASDAQ, relative to the pre-

SLUSA period. The large increase in litigation activity against NASDAQ-listed firms is consistent with our earlier observation that high-tech firms became the primary litigation targets in recent years following the general market downturn after the NASDAQ reached its peak in May 2000.

1.3.2 Settlement activity 1993-2002

The following section presents summary statistics for our settlement data set. In Table 6, we present information on the number of settlements as well as total and average settlement amounts across years.

**** Insert Table 6 about here ****

Although the number of settlements per year is relatively stable, we observe a clear increase in average settlement amounts during our sample period. The trend persists even after adjusting for inflation.⁷ This trend is especially noticeable in the post-SLUSA period. Total settlement amounts in 2001 and 2002 were particularly large with well over \$2.6 billion in both years. This increase is also reflected in the \$1.9 billion post-SLUSA average, which lies well above the pre-SLUSA and pre-PSLRA sample averages. Given that settlement frequency was relatively stable throughout our sample period, the increase in total settlement amounts is largely attributable to an increase in the average size of settlements. While settlements consistently averaged \$8 million per case between 1993 and 1997, they rose to approximately \$20 million in 2001 and 2002, an increase of approximately 150 percent.

⁷ Note that all settlement amounts have been converted to 1993 dollars based on annual CPI inflation rates published by the Bureau of Labor Statistics (BLS).

**** Insert Table 7 about here ****

From this table, we observe that the majority of settlement cases were made by firms sued in the Ninth Circuit, with a total of 406 settlements, representing 31.67 percent of the total number of settlements. The Second Circuit is worth mentioning too, as it accounts for 16.92 percent of the cases. We observe a considerable increase in settlement activity in the Fourth and Fifth Circuit, while settlement activity in the Second, Third and Ninth Circuit appears to decline. We further observe considerable variation in average settlement amounts between court circuits with no clear concentration in specific regions. Table 8 provides a comparison of settlement activity and settlement amounts by exchange.

**** Insert Table 8 about here ****

We observe that most settlements in our sample were announced by firms traded on the NASDAQ. Of particular interest in this table are average settlement amounts. Not surprisingly, we find that NYSE-listed firms, which generally are larger and have deeper pockets, settle for higher amounts than AMEX and NASDAQ-listed firms.

In Table 9, we compare settlement activity and settlement amounts by industry sector.

**** Insert Table 9 about here ****

We observe that most settlements in our sample were announced by firms in the services sector, as well as in the finance & real estate and the consumer durables sectors. When comparing average settlement amounts across industries, we observe that firms in the utilities sector as well as finance & real estate firms pay the largest settlements on average. Considering that firms in these sectors tend to be larger and more liquid than firms in other industries, this observation is not surprising.

The following table categorizes our sample according to various allegation categories based on case descriptions provided by the Securities Class Action Alert. We classified all cases into one or more of eight distinct categories as described earlier.

**** Insert Table 10 about here ****

Because we did not observe settlements for cases involving IPO laddering schemes, fraudulent transactions or inflated analyst recommendations, these categories are excluded from Table 10. Interestingly, we observe the highest settlement activity is by firms accused of failing to disclose past business problems. On the other hand, we observe few settlements for cases involving insider trading, possibly because those cases are targeted more at individual officers than at the firms as a whole.

To examine whether some of the apparent differences and trends we observed in our summary statistics are statistically significant, we perform a series of univariate tests which are presented in Tables 11-12.

Because it appeared that tech firms were sued more frequently than non-tech firms,⁸ we compute a monthly litigation rate for both types of firms and use t-tests and Kruskal-Wallis tests to test whether differences in mean and median litigation activity between those groups are statistically different.

**** Insert Table 11 about here ****

Similarly, to assess differences in litigation activity between exchanges, we perform pairwise comparisons between litigation activity for the NASDAQ, NYSE and AMEX, respectively in Table 12.⁹

⁸ Note that we deviate from our classification into 12 industry sectors which we presented earlier and employ a broader tech vs. non-tech classification that follows Cliff and Denis (2003).

⁹ Note that the univariate tests in tables 11 and 12 do not allow us to draw any conclusions regarding the litigation risk, i.e. the probability of being sued, across industries or between exchanges. To calculate a

Surprisingly, we observe in Table 11 that tech firms were sued significantly less often than non-tech firms prior to passage of the 1998 SLUSA

After the 1998 SLUSA we observe no significant difference in mean monthly litigation rates but a significant difference in median litigation rates between the two groups.

**** Insert Table 12 about here ****

Using similar tests, Table 12 shows that settlement activity in the NASDAQ was more frequent than settlement activity on both the NYSE and AMEX.

meaningful litigation rate for an industry sector, for example, would require an estimate of the total number of publicly traded firms in that industry. Because of fluctuations over time, such an estimate is difficult to obtain. The significance of differences in Table 12 does not mean that litigation risk for NASDAQ firms is higher than for NYSE or AMEX-listed firms. It simply indicates that we observe a higher number of lawsuits against firms traded on the NASDAQ than for firms traded on the other exchanges. A litigation rate which assesses the litigation risk across exchanges was presented in Table 5.

Chapter 2: The effect of lawsuits and settlements on the stock performance and survivability of defendant firms

2.1 Literature review

Lawsuits impact firms in many aspects. From a firm's perspective, a securities class action lawsuit creates both direct and indirect costs. Direct costs include lawyer fees, diversion of management and staff time and potentially ruinous verdict amounts. Indirect costs include the loss of reputation capital that results from customers, business partners, and the general public losing trust in the accountability of a firm. This may lead to lower sales and put stress on existing business relationships. Similarly, investors may lose their trust in a firm's management and may decide to reduce or terminate their investments. Alexander (1991, 1993) points out that none of these parties is able to discern between merited and unmerited lawsuits. Thus, even innocent firms and their managers are subjected to the negative consequences of securities litigation. In a similar fashion, IPO-related cases affect not only the issuing firm but often also have a negative impact on underwriters and auditors who are involved in the IPO process, causing a possible loss of clients for those parties (Tiniç (1988)).

The monetary and economic impacts of lawsuit filings have received a lot of attention in recent studies. These studies generally focus on the impact of a lawsuit on a firm's stock performance (see Fields (1990) and Romano (1991)) and are usually limited to a small number of observations. To our knowledge, our study is the first to examine the impact of securities class action litigation on a firm's stock performance and survivability using a large comprehensive sample. The investigation of litigation effects on stock performance requires an adjustment to standard event study methodology because lawsuits differ in

many ways from other types of events that are typically studied. One difficulty is that the filing of a lawsuit may not always come as a surprise to the market. Some “leakage” about the preparation of a lawsuit by plaintiff lawfirms may make investors aware of a potential future filing and may thus affect the stock performance of the defendant-to-be. Unfortunately, we cannot measure the magnitude of the leakage or the anticipation in question accurately, so most researchers focus their attention on evaluating the short-term and long-term market reaction after the lawsuit announcement. Fields (1990), for example, illustrates the wealth effects of the Pennzoil-Texaco lawsuits, two publicly traded companies, on both the plaintiff and defendant. He finds that the market reaction to interfirm litigation produces asymmetrical wealth effects for the plaintiff and the defendant: although he confirms a negative impact of a filing on the defendant, he adds that the defendant loses more wealth than the plaintiff gains on the announcement of a lawsuit. However, the anticipation of a settlement causes a reversal of the effect. Romano (1991) examines the market’s valuation of lawsuits using event study methodology¹⁰, and finds that investors perceive the filing of a shareholder suit as a wealth-decreasing event. The stock price reaction for the defendant firm is only significant one day before the filing date. In her sample, class actions produce significant negative stock returns of 7.5 percent the day before the filing announcement, but have no effect on the filing date. Bhagat et al. (1994) present the first heterogeneous large-sample analysis of the stock-market reactions to interfirm litigation. A firm enters their sample each time it is either a defendant or a plaintiff in a lawsuit or settlement filing. The resulting sample consists of 237 lawsuits announcements involving publicly traded defendants and 208 involving publicly traded plaintiffs between 1981 and 1983. They find that when a suit is filed,

¹⁰ Brown and Warner (1985)

defendants undergo a statistically significant decrease (Average Cumulative Abnormal Return (ACAR) = -0.92 percent) in wealth but plaintiff shareholders receive no abnormal returns. Nevertheless, around lawsuit settlements, defendant firms experience wealth gains (ACAR = 1.65 percent) whereas the stock returns for the plaintiff firms show no abnormal performance. Bizjak and Coles (1995) study the impact of interfirm antitrust litigation on both defendants and plaintiffs. They find that defendants experience an economically and statistically significant wealth loss of about 0.6 percent (\$4 million on average) of the firm's equity value, while plaintiffs enjoy an average wealth gain of 1.2 percent (\$3 million on average) of the equity value of the firm. Bhagat et al. (1998) examine the abnormal stock market reaction to filing and settlement announcements for a large sample of lawsuits in which at least one side, plaintiff or defendant, is a corporation. Their defendant subsample consists of 618 announcements related to a lawsuit filing and 28 to a settlement; and their plaintiff subsample consists of 261 announcements related to a lawsuit filing and 12 to a settlement. They find that the average wealth loss for a defendant is 0.97 percent of the market value of the equity. However, there is no significant negative impact on the plaintiff side. They find that no matter who brings a lawsuit against a firm, defendants experience a statistically significant wealth loss upon the filing of the suit. On the other hand, and inconsistent with previous studies, they find that there are no significant positive wealth gains for either the defendants or the plaintiffs following a settlement announcement. Moreover, they study the wealth effects for both lawsuit and settlement announcements by type of legal issue. They conclude that all but corporate governance suits entail negative returns and find none that have a significant effect upon a settlement announcement. Loh and Rathinasamy (2002) extend

the Bhagat et al. (1998) study by first enlarging the sample (taking a 3-year period from 1996 to 1998) and by dividing it into subsamples according to the nature of the complaints. They find, consistent with Bhagat et al., that the defendant firm's stock experiences a 1.93 percent decline over a two-day window surrounding the filing date. Moreover, among the different reasons that cause the filing of a lawsuit, the majority shows a significant decline in stock value with the magnitude of the abnormal market response depending on the nature of plaintiff complaints.

Class actions are generally large complex cases, which require substantial commitment and resources on the part of both plaintiffs and defendants and their counsel. Most cases are resolved through settlements and typically take an average of two to three years to settle. Settlements shade the burden and the cost of the process of going to trial although they often do not reflect the optimal and most accurate outcome a firm should undertake (cf. Alexander (1991)). Once a firm takes the decision to settle instead of going to court, many factors play a role in determining settlement amounts such as attorneys' fees, loss of reputation capital, etc. As we have seen in previous studies, similarly to a lawsuit announcement, a settlement announcement may impact a firm's performance. Bajaj et al. (2000) examine trends in settlements for case filings spanning from 1988 to 1999. They find that mean and median settlement amounts generally increase the longer a case takes to settle. Setting the PSLRA as a comparison line, they find that settlement amounts increased for cases settled in the post-reform period. Furthermore, based on different types of co-defendants, they find that mean and median settlements of cases involving accounting or underwriting firms as co-defendants were much greater than those for the sample as a whole. Their results further indicate that the nature of settlements varies

noticeably over time, across industries and between allegation types. Dunbar et al. (1995) find that settlement amounts as a ratio of investor losses decline as investor losses increase. It is the only factor that they find to have a significant impact on settlement size. Simmons (2002) examines settlements announced between 1991 and 2002 to gauge the effect of the PSLRA on settlement size and confirms the results by Bajaj et al. (2000) and Dunbar et al. (1995).

2.2 Wealth effects of filings and settlements

2.2.1 Hypotheses

The filing of a lawsuit sends a negative signal to the market indicating that the firm might be encountering certain problems. Given that it often takes years until a lawsuit is resolved, investors tend to view a defendant firm as more risky. In addition, due to the high direct and indirect costs that are often associated with litigation, investors perceive a lawsuit announcement as a wealth-decreasing incident due to its potential reduction in future cash flows. Fields (1990), Romano (1991), Bhagat et al. (1994), Bizjak and Coles (1995), Bhagat et al. (1998) and Loh and Rathinasamy (2002) confirm in their studies this negative impact of lawsuit announcements. Ours is the first study to consider both the short- and long-term effects of lawsuit and settlement announcements and to investigate the survivability of defendant firms in the years following such announcements. In addition, our study is the first to examine the impact of the 1998 SLUSA on the wealth effects associated with securities class action litigation. In addition, our study is the first to explore the sensitivity of our results to changes in event study methodology. We argue that event studies that have been employed in the existing literature understate a defendant firm's abnormal returns. Instead of using a defendant firm's pre-litigation

performance as a benchmark, we measure abnormal returns relative to expected market returns, thus implicitly assuming that the defendant firm's beta is equal to one. Using a considerably larger sample than most previous studies, we examine the effect of the filing of a lawsuit on the short and long-term performance of the defendant firm and formulate two hypotheses:

Hypothesis I

H_0 = Defendant firms experience a significant short-term (1 day – 6 months) decline in their stock price following a lawsuit.

H_a = Lawsuit announcements do not have a significant impact on the stock performance of defendant firms.

Hypothesis II

H_0 = Defendant firms experience a significant long-term (6 months – 2 years) decline in their stock price following a lawsuit.

H_a = Lawsuit announcements do not have a significant impact on the stock performance of defendant firms.

As noted by Alexander (1993) most firms prefer to settle instead of going to trial in order to reduce the cost of the trial process and to preserve what remains of the firm's image. In contrast, settlements are perceived as good news by most investors and thus are reflected by an increase in firm value. Fields (1990) and Bhagat et al. (1994, 1998) observe a significant positive stock price reaction to settlement announcements.

We gather exact settlement dates for 443 settlements from Lexis-Nexis and evaluate the effect of a settlement announcement on both the short- and long-term performance of the settling firm's stock. We postulate the following two hypotheses:

Hypothesis III

H_0 = Defendant firms experience a significant short-term (1 day – 6 months) increase in their stock price following a settlement.

H_a = Settlement announcements do not have a significant impact on the firm's, short-term stock performance.

Hypothesis IV

H_0 = Defendant firms experience a significant long-term (6 months – 2 years) increase in their stock price following a settlement.

H_a = Settlement announcements do not have a significant impact on the firm's, long-term stock performance.

2.2.2 Methodology and results

Event studies can be used to identify and measure the impact of lawsuits and settlements on the stock performance of defendant firms. Event studies are known to be among the most successful uses of econometrics in policy analysis. Therefore, we utilize standard event study techniques to measure the effects of the announcement of both a lawsuit filing and a settlement on the short- and long-term performance of a firm. One important limitation regarding the prospective findings is that the announcement-period abnormal return understates the expected decline in shareholder wealth after a lawsuit

announcement. The reason is that leaked information about an approaching suit may already be embedded in the market price of the firm's stock. We test for the possibility of information leakage by examining pre-event cumulative abnormal returns (CARs). A CAR measures the abnormal returns a stock experienced over several days as a direct result of an event. In addition, we control for leakage effects when examining the factors that influence the magnitude of a defendant firm's CAR.

Another problem is that a lawsuit often follows internal problems in the firm. If investors were aware of these problems, then they may have already had a significantly negative impact on the firm's stock price. This stock price drop is arguably one of the major reasons for the lawsuit filing in the first place.¹¹

For lawsuits, we use the lawsuit announcement date as published by Stanford's Securities Class Action Clearinghouse as the event date. For settlements, we accessed Lexis-Nexis to determine the exact date a settlement announcement was made to the public. We use this date as the settlement event date in our study. We calculate daily abnormal returns for firms following both lawsuit filings and settlement announcements. In addition, we measure the cumulative abnormal return, $CAR_{i,(t,t+n)}$, the cumulative sum of abnormal returns over a window of n day as:

$$CAR_{i,(t,t+n)} = \sum_{j=t}^{t+n} AR_{i,j} \quad (1)$$

CARs enable us to measure the market's reaction to an event in a time frame that encompasses the entire period from the event under study to the end of our sample period.

¹¹ Drake and Vetsuypens (1993) and Lowry and Shu (2002) point out that plaintiffs' claimable damages are an increasing function of shareholder losses. Thus, without a sufficient stock price drop, plaintiffs and their lawfirms have little incentive to file a suit.

As in Ritter (1991), the event study methodology we follow in this paper calculates abnormal returns using the *net of market returns* model. This approach implicitly assumes that each firm's beta is equal to 1, and it takes into account marketwide movements which occurred at the same time that the sample firms experienced events. We calculate Abnormal Returns (AR) using this unadjusted approach because it does not calculate a firm's beta during the period prior to the event.¹² The variable of interest in our estimation is the difference between the return of the sued firm and the corresponding return on the CRSP equally weighted index during various time frames surrounding a lawsuit or settlement announcement. If an announcement is taken as good news, abnormal returns will be positive, signaling the market's belief that the firm's value has increased. Negative abnormal returns are evidence of bad news, indicating that the market believes the event will decrease the firm's future performance.

Abnormal returns in the unadjusted return model are calculated following this equation:

$$AR_{i,t} = R_{i,t} - R_{m,t} \quad (2)$$

where $R_{i,t}$ is the actual return of firm i and $R_{m,t}$ is the return of the CRSP equally-weighted market index on day t . Day 0 is the event date. Daily abnormal returns and CARs over (-250, -1), (-125, -1), (-60, -1), (-20, -1), (-10, -1), (-5, -1), (-3, -1), (-2, -1), (-

¹² Although not reported here, we also performed an event study that uses 3-year and 5-year beta estimates based on the firm's returns relative to the market. Although our results are qualitatively similar for both models, we find that the standard CAPM model vastly underestimates the abnormal returns around a lawsuit or settlement announcement. This is due to the fact that sued firms generally encounter a stock price drop prior to being sued. These stock price drops, whether caused by firm-internal problems that the market becomes aware of or resulting from unrelated price declines which - as some argue - are then "exploited" by plaintiffs, generally cause beta estimates and the expected returns for the litigation target to be very low. We argue that the net of returns model, that implicitly assumes a beta of 1 for each firm, provides a better estimation for the expected return a risk-averse investor who has a long position in the security expects to achieve.

1,0), (-1,1), (0,1), (0,2), (0,5), (0,10), (0,20), (0,60), (0,125), (0,250) and (0,500) windows are calculated respectively.¹³

We then apply mean and median tests to examine whether average CARs around the announcement of a lawsuit or settlement are significantly different from zero. For our lawsuit sample, we use two-tailed t-tests to test our hypotheses. Because t-tests are based on strong assumptions about the underlying sample characteristics, we also use Wilcoxon ranked-sign tests to ensure the robustness of our results. In Wilcoxon tests, both the sign and the magnitude of the abnormal performance are taken into consideration in test statistics. According to Brown and Warner (1985), the statistical characteristics of daily return data will not affect the results of an event study. Thus, issues of non-normality, clustering effects, autocorrelations, non-synchronous trading and cross-sectional dependence are not taken into account during our test. The choice of index, however, will lead to different results. We again follow Brown and Warner (1985) and use the CRSP equally weighted market index as a proxy for the market.¹⁴

2.2.2.1 Lawsuit filings

Our lawsuit sample consists of 1,478 lawsuits filed between 1996 and 2002. Stock returns for each company are collected from CRSP for the period from 1985 to 2002. We extend the period backwards in order to fully include the class period during which the security law violations allegedly occurred. Out of the 1,478 sued firms in our lawsuit sample, we find 315 firms that have missing returns around the date of their lawsuit filing. After

¹³ Following standard event study terminology, the numbers in brackets describe our event windows. The first number represents the first day of our event window, the second number represents the last day of our event window. Both numbers are measured in trading days relative to the event date, day 0.

¹⁴ To ensure the robustness of our results to different market proxies, we also perform our tests using the CRSP value-weighted market index, which puts more weight on large firms, as a benchmark. Our results were qualitatively and quantitatively similar for both indexes.

excluding these companies, our event study sample consists of 1,163 lawsuit filings. Because several firms were delisted prior to the end of our sample period, our sample size declines for longer event windows.¹⁵ When a firm in the sample is delisted from CRSP data, the sample return for the corresponding event window is an equally weighted average of the remaining firms in the sample. The cumulative market-adjusted return for the different event windows implicates some adjustments with the proceeds of a delisted firm equally allocated among the surviving members of the sample in each consequent event window. A firm's returns are included in the CAR calculation of a certain event window only if this firm still has available return data on the last day of the event window.

To test hypotheses I and II, we evaluate the short- and long-term effects that a lawsuit has on a defendant firm's stock performance. The following figure provides a graphical illustration of a defendant firm's average abnormal returns (AAR) within a 200 day window before and after a lawsuit announcement.

**** Insert Figure 1 about here ****

We observe an AAR of -1.28 percent on day 0, the day the lawsuit is announced. It is worth mentioning that average abnormal returns are consistently negative during the five days prior to a lawsuit and average -1.77 percent on day -1, one day prior to the announcement. This indicates a probable news leakage about a forthcoming lawsuit filing before the announcement date. Overall, the graph clearly illustrates the plunge in abnormal returns around a lawsuit announcement. This supports our hypothesis that a lawsuit has a negative impact on a firm's stock performance.

¹⁵ Note that there are various reasons why a firm is delisted from CRSP. We provide detailed results for various delisting events such as liquidations, mergers and acquisitions, etc. in tables 13 and 14.

**** Insert Figure 2 about here ****

In Figure 2, we graph the average cumulative abnormal returns 200 days before and after the announcement of a lawsuit. Due to the short length of our sample period, an analysis over a longer time frame was inconclusive, as a 5 year-analysis, for example, would have only included those firms that were sued in 1996 (the first year of our filing database). Even for our two-year analysis we note that the longer-term calculations are more heavily influenced by firms that were sued early-on in our sample; while calculations close to the filing date are based on all observations in the sample. Nevertheless, we find that within the timeframe of our analysis sued firms experience a sharp price decline on the day of the announcement. At the time a lawsuit is filed against a firm it has already dropped by approximately 42.15 percent from previous-year levels. Again, the possible leakage of insider information about an imminent lawsuit and the possible overlap of the pre-announcement period with the class action period (during which the crimes allegedly took place) are the likely reason for this decline.

2.2.2.2 Settlement announcements

Our settlement sample consists of 1,282 settlement announcements published in the Securities Class Action Alert between 1993 and 2002. Stock returns for each firm in our sample are collected from CRSP for the period from 1980 to 2002. Unfortunately, out of the 1,282 settled firms, we were able to identify exact settlement dates for only 443 companies on Lexis-Nexis. Out of these 443 firms, we had to exclude 86 firms because they had no return data available around their settlement dates. We use the resulting sample of 357 firms in our event study which examines both the short-term and long-term effects of a settlement announcement on a firm's stock price. Again, our sample size

declines for longer event windows because of firms being delisted from CRSP or some settlements being announced towards the end of our sample period. We follow the same procedure as in the lawsuit sample to deal with delisted firms and provide a detailed analysis of delisting reasons in a later part of our study.

To evaluate the long-term effect that a settlement has on a defendant firm's performance, we investigate the abnormal performance of settled firms within various timeframes around their settlement announcements.

**** Insert Figure 3 about here ****

In Figure 3 we graph average abnormal returns (AARs) of settled firms 200 days before and after the settlement announcement. We observe that settling firms experience an average abnormal return of +1.7 percent on the day their settlement is announced. This supports our hypothesis that a settlement announcement is perceived as good news by investors. We test for the significance of our observation in Table 14.

**** Insert Figure 4 about here ****

In Figure 4, we report cumulative abnormal returns 200 days before and after the announcement of a settlement. We observe that firms experience a continuous downward trend in their stock prices between the 200th and 50th day prior to their settlement announcements. This is likely caused by investor uncertainty during the ongoing litigation. Between day -50 and day 0, we observe a recovery, which may be caused by investors anticipating a resolution of the case through a settlement. On day 0, we observe an upward spike in stock prices as discussed in Figure 3. Afterwards, there is no obvious trend – the firm's stock appears to hold on to its gains and shows no signs of unusual

performance after the case has been settled (as would be expected under the efficient market hypothesis).

As we can see from Table 13, defendants experience economically meaningful and statistically significant wealth losses upon the filing of a lawsuit.

**** Insert Table 13 about here ****

The average wealth loss for a defendant firm is 1.5 percent of the market value of equity over a 2-day event window, which is highly significant based on the results of a t-test and a Wilcoxon ranked-sign test ($p\text{-values} < 0.0001$). As noted before, we also observe a significant drop in stock prices prior to the lawsuit announcement. Within the five-day period prior to a lawsuit, for example, a sued firm loses 1.3 percent of market cap every single day. In addition, we observe a significant negative stock price reaction within up to 125 days after the lawsuit.

In the long-run (within 250 and 500 days after the lawsuit) there appears to be a recovery. This observation should be viewed with some caution, however, as it may be driven by coinciding settlement announcements during that time and may be subject to a survivorship bias because, as we later explain, some firms fail as a result of being sued and are thus excluded from our longer-term calculations.

It is worth noting that the announcement date period abnormal returns may be understating the decline in investors' wealth resulting from the announcement of a lawsuit. The reason is that information about an imminent filing may be already circulating in the market and is consequently embedded in the firm's stock even before the announcement of the lawsuit, thus understating the real impact of the news when examining post-event windows.

**** Insert Table 14 about here ****

We find that unlike lawsuit filings, defendants experience economically meaningful and statistically significant wealth gains upon the announcement of a settlement. The average wealth gain for a defendant firm is 3.25 percent of the market value of equity over a 2-day event window, which is highly significant based on p-values of less than five percent for a t-test and a Wilcoxon ranked-sign test of the cumulative abnormal returns. During the (-250, -1) event window before the announcement of the settlement, defendants experience a significant wealth decrease of 11.63 percent. This may be driven by negative returns associated with the previous lawsuit filing.¹⁶ About sixty days prior to the event, positive effects start to show in the stock performance of firms, indicating a calm period after the “storm” of a lawsuit filing. The positive returns during this period may be driven by investors’ anticipation of a settlement agreement or the leakage of news that a firm has entered settlement negotiations with defendant parties. We confirm previous studies find that over a short-term period, settlements have a significant positive effect on the settling firms’ stock performance. We do not find any long-term abnormal returns, however.

2.2.3 Determinants of CARs

Similar to Bhagat and Romano (2001), our goal is to shine light on the cross-sectional determinants of the stock market’s reaction to the announcement of a lawsuit and a settlement by exploring the relation between the cumulative abnormal returns around the event and various factors that describe the lawsuit/settlement as well as the firm itself.

¹⁶ To avoid a possible spillover-effect, note that we exclude three firms from our CAR calculations for the (-250,-1) event window because they were sued during that period. All other event windows were not affected by coinciding lawsuit announcements.

We use OLS regressions to explore the relationship between a firm's CARs and a number of explanatory factors as follows:

$$CAR_{i,(t,t+n)} = \alpha_0 + \alpha_1 x_{1i} + \dots + \alpha_s x_{si} + \varepsilon_i \quad (3)$$

where $CAR_{i,(t,t+n)}$ is the cumulative abnormal return for firm i during a period of time, x_{1i}, \dots, x_{si} are s factors that describe firm i or the lawsuit/settlement against the firm, and ε_i is the zero-mean error term that is uncorrelated with the x 's. $\alpha_0, \dots, \alpha_s$ are the regression coefficients for our model.

Bhagat et al. (1998) find that wealth effects for defendant firms following a lawsuit announcement are significantly positively related to the size of the firm and significantly negatively related to the firm's proximity to bankruptcy. Moreover, they find that the nature of the plaintiff has an influence on the wealth effects upon filing. Bizjak and Coles (1995) include dummy variables for the type of suit in their abnormal return regression and find that the type of allegation has a significant impact on the wealth effects upon filing.

In the following regressions, we appraise determinants of both lawsuit and settlement CARs over several event windows; for the short-term effects we use (-1, 1), (-1, 5) and (-1, 20) event windows and for the long-term effects, we use (-1,125) and (-1,250) event windows.

To examine the CARs for our lawsuit sample, we employ two regression models: one in which we control for industry effects by using twelve dummy variables to group firms by industry following Breeden et al.'s (1989) classification, and another one in which we use a broader classification into tech- and non-tech firms following Cliff and Denis (2003). In addition, we include several factors of interest such as dummy variables for the various

allegation types ($ALLEG_{1-10}$), dummy variables for the industry sectors ($LAWSUITINDUSTRY_{1-12}$), the exchange on which the firm was traded when it was sued ($LAWSUITEXCHANGE_{1-3}$), whether it was named as lead- or codefendant ($LEADDEF_i$), and whether it was sued prior to or after the 1998 SLUSA ($LAWSUITPOST98_i$). In addition, we include a variable that proxies for possible information leakage by measuring the five-day pre-announcement CAR ($LEAK_i$), and a variable that measures the natural log of the firm's market capitalization one week prior to the lawsuit announcement ($\ln(SIZE_i)$).

Our first model in which we explore the determinants of CARs following a lawsuit can be expressed as follows:

$$\begin{aligned}
 CAR_{i,(-1,t)} = & \beta_0 + \sum_{j=1}^{10} \beta_{1,j} ALLEG_{i,j} + \beta_2 LEAK_i + \beta_3 \ln(SIZE_i) + \beta_4 LEADDEF_i \\
 & + \sum_{h=1}^3 \beta_{5,h} LAWSUITEXCHANGE_{i,h} + \sum_{n=1}^{12} \beta_{6,n} LAWSUITINDUSTRY_{i,n} \\
 & + \beta_7 LAWSUITPOST98_i + \varepsilon_i
 \end{aligned} \tag{4}$$

Similarly, the second model for lawsuit CARs, using a broader tech versus non-tech classification, can be expressed as:

$$\begin{aligned}
 CAR_{i,(-1,t)} = & \beta_0 + \sum_{j=1}^{10} \beta_{1,j} ALLEG_{i,j} + \beta_2 LEAK_i + \beta_3 \ln(SIZE_i) + \beta_4 LEADDEF_i \\
 & + \sum_{h=1}^3 \beta_{5,h} LAWSUITEXCHANGE_{i,h} + \beta_6 TECH_i + \beta_7 LAWSUITPOST98_i + \varepsilon_i
 \end{aligned} \tag{5}$$

In our settlement CAR model, we use the same factors as in equation 4 and 5. In addition, we include dummy variables that denote whether a settlement was announced by a firm sued in federal or state court ($SETTLESTATEJURIS_i$), whether it was sued during the post-PSLRA/pre-SLUSA or post-SLUSA period ($SETBETWENNACTS_i$ and $SETPOST98_i$). In addition, we include a variable that measures the annualized percentage

price drop that the firm experienced during the class action period (PRICEDROP_i). Thus, we model settlement CARs as:

$$\begin{aligned}
 CAR_{i,(-1,t)} = & \beta_0 + \beta_1 \ln(SIZE_i) + \beta_2 SETLESTAT EJURIS_i + \beta_3 SETBETWEEN ACTS_i \\
 & + \beta_4 SETPOST 98 ACT_i + \sum_{j=1}^3 \beta_{5,j} SETEXCHANG E_{i,j} + \beta_6 PRICEDROP_i \\
 & + \sum_{m=1}^7 \beta_{7,m} SETINDUSTRY_{i,m} + \sum_{n=1}^7 \beta_{8,n} ALLEG_{i,n} + \varepsilon_i
 \end{aligned} \tag{6}$$

The following tables present estimation results for the regression models corresponding to equations 4 to 6. Tables 15 and 16 present regression results for CARs around lawsuit announcements and Table 17 presents regression results for CARs around settlement announcements.

** Insert Table 15 about here **

With adjusted R² values generally around four percent, our models explain only a small percentage of the total variation in CARs. We observe that short-term models involving CAR calculations in a (-1, 1) event window provide the best model fits. Our following discussion thus focuses on these models. We observe that laddering cases, likely because they typically only name firms as co-defendants, have CARs that are about 6.4 percent smaller than other cases.¹⁷ Also interesting is the observation that firms in the construction sector (IND06) appear to be economically very little affected by lawsuits, as they show CARs that are 16.1 percent below the sample mean. Similarly, firms in the textiles sector (IND10) appear to be little affected by lawsuits, with CARs that lie 5.7 percent below the CARs of firms in other industries. Concerning the exchange dummy variables, we find that firms trading on the AMEX experience the highest loss in

¹⁷ Note that a negative coefficient is associated with a larger negative abnormal return, while a positive coefficient may be interpreted as reducing the economic magnitude of a firm's negative stock price reaction to a lawsuit.

shareholder wealth. In fact, defendant firms tend to lose 17.7 percent more if trading on this exchange. A similar effect can be observed for the NASDAQ (with an additional CAR of 6.9 percent). Not surprisingly, when the firm is named as lead defendant, it incurs a 5.7 percent bigger loss than what it would have incurred if only named as co-defendant. Finally, firms sued after the 1998 SLUSA experience a 3.6 percent bigger loss than firms sued before the Act. Over a longer range, i.e. (-1, 5), several other variables become significant. During that timeframe, defendants tend to experience a 3.8 percent higher loss when they are accused of artificially inflating financial results (ALLEG06). Similarly, various industry sectors emerge as significant explanatory variables. We find that firms in the financial and real estate (IND02) sector, as well as food and tobacco (IND05), capital goods (IND07) and the textiles and trade (IND10) sector experience an additional wealth loss of 7.1 percent, 13.7 percent, 8.7 percent and 11.3 percent, respectively, when they are sued. In addition, the leakage variable and the market capitalization variable become significant over this event window. We calculate the CAR over the (-5, -1) window in order to test the effect of a leakage of an imminent lawsuit on the market. Obviously, the bigger the leakage is, the lesser wealth losses are, because the negative effect of the lawsuit is already incorporated in the firm's stock returns before the filing announcement. For every one percent loss that investors incurred during this pre-announcement period, defendants enjoy 9.2 percent lower declines after the announcement. On the other hand, the size coefficient is positive and can be interpreted as firms experiencing a 0.7 percent lower stock price drop for every one percent increase in market value. This result is consistent with Bhagat et al. (1998). In the long-run however, e.g. over a (-1, 250) window, the coefficient on the size variable

becomes negative. Thus it appears that large firms are little affected in the short-run, but subsequently suffer in the long-run. A similar sign reversal can be observed for the POST98 dummy variable. Firms sued after 1998 experience a lower CAR in the short-run, which is followed by a higher CAR in the long-run. The low CAR in the short-run may be explained by the fact that, by passing the 1998 SLUSA, Congress intended to reduce litigation risk for firms. By forcing firms to file in federal court under the strict provisions of the 1995 PSLRA, plaintiffs are facing a higher likelihood that their cases are ultimately dismissed. This may explain why cases filed after the 1998 SLUSA show lower negative CARs than firms sued before the 1998 Act.

**** Insert Table 16 about here ****

In Table 16, we substitute the 12 industry sector variables with a tech dummy. We notice that even with fewer variables, the model fit is almost the same as the previous regression model. Surprisingly, over the (-1, 5) event window, we observe that tech firms suffer a 3.1 percent lower wealth loss upon a lawsuit announcement. Over the (-1,250) event window, the sign is still positive and it appears that tech firms suffer a 9.5 percent lower wealth loss even a year after a lawsuit filing.

Table 17 presents results for our CAR regression for settlement announcements.

**** Insert Table 17 about here ****

We observe that the size coefficients are negative and highly significant in all regressions. This shows that larger firms enjoy less wealth increase than smaller ones upon a settlement announcement, in both the short and the long-term. This is not surprising given that a lawsuit may affect a small firm more than a large firm and that the eventual settlement of such a lawsuit takes a big burden of the small firm's shoulders. We

also observe that firms that were accused of failing to disclose past business problems (ALLEG05), experience a 6.5 percent smaller wealth gain in the (-1, 1) event window than firms accused of other security law violations. Other factors are not significant in our regression.

2.3 On the survivability of sued and settled firms

Firms can be delisted from an exchange for several reasons. We hypothesize that after enduring the cost and the bad reputation accompanying a claim, some firms cannot overcome and survive a lawsuit. Thus, we assume in our study that a delisting following a lawsuit announcement is a result of the damage the suit has inflicted on the sued company. In order to test this hypothesis, we gather detailed delisting information, including the date and reason why a firm was delisted, for both sued and settled firms from CRSP. In order to assess whether a firm truly failed, we exclude firms that CRSP flags as delisted due to inactivity. In addition, we exclude firms that CRSP flags as delisted because of a merger or acquisition or because trading in the firm's stock was temporarily suspended. We flag a firm as having "failed" if it was liquidated, went bankrupt, became technically insolvent or it was dropped from the exchange due to the inability to comply with exchange listing requirements. Our resulting sample includes 156 firms that failed during our sample period after they were sued and 138 firms that failed after they settled. Because the involuntary delisting of a security by the exchange or the SEC is different from other forms of failure, we will investigate those events separately. In the following tables, we report summary statistics for different types of failure for our sample of sued and settled firms. To serve as a benchmark for comparison, we identify a matched firm for every sued and settled firm in our lawsuit and settlement

databases. We select matching firms based on four criteria: (1) they were not involved in any securities litigation during our sample period, (2) their trading history is not more than two years longer or shorter than that of the corresponding sued/settled firm¹⁸, (3) they are in the same industry sector as the corresponding sued/settled firm¹⁹, and (4) their market capitalization falls within +/- 50 % of the corresponding sued/settled firm. For the sued companies, we find 1,044 matched non-sued firms with similar characteristics. For settled firms, we have 796 matched non-sued firms as a comparison base.

** Insert Table 18 about here **

Table 18 shows that 14.95 percent of sued firms failed during our sample period while the failure rate for matched non-sued firms was only 9.1 percent. Overall, we find that 156 of 1,044 sued firms failed, while the number of failures for comparable non-sued firms was only 95.

** Insert Table19 about here **

We observe that 17.34 percent of our settled firms failed during our sample period while only 8.67 percent of the matched non-sued firms failed. Overall, we find that 138 of the 796 firms in our settlement dataset failed, while the number of failed non-sued firms is only 69. It is also worth mentioning that the percentage of failures in the settled sample (17.34 percent) is bigger than the percentage in the sued sample (14.95 percent).

¹⁸ We measure trading history as the number of years since the firm's IPO. By comparing firms of similar age, we avoid a potential bias that may arise from IPO firms having a lower "life expectancy" than comparable seasoned firms, as documented by Bhabra and Pettway (2003).

¹⁹ We distinguish between 12 industry sectors following Breeden et al. (1989).

We hypothesize that sued and settled firms have a lower probability of survival after a lawsuit or settlement announcement relative to a sample of comparable non-sued firms. Thus, we postulate the following hypothesis:

Hypothesis V

H_0 = Sued and settled firms have a lower probability of survival than non-sued firms after a lawsuit/settlement announcement.

H_a = There is no significant difference in the survival rates of sued/settled and non-sued firms.

To test this hypothesis, we examine the percentage of delisted companies over several intervals: (< 3 months), (3 months-6 months), (6 months-9 months), (9 months-1 year), (1 year-2 years), (2 years-3 years) and finally (> 3 years), following either a lawsuit filing or a settlement announcement. Table 20 provides results for our analysis:

**** Insert Table 20 about here ****

Observing the difference between ratios across intervals of time, we find that up to one year after the filing announcement, the difference between the failure rate for sued firms and matched non-sued firms is not significant. However, for firms delisted between one and two years after the filing date, we observe that the failure rate for the sued sample is significantly bigger than that for the non-sued sample (p-value=0.0401). This significance persists even for firms that were delisted between two and three years after a lawsuit (p-value=0.0454). Surprisingly, when we extend our analysis beyond three years, we observe that sued firms fail significantly less often than non-sued firms (p-value=0.0001). This may be consistent with a scenario in which lawsuits will cause firms

to “wash out” relatively quickly and firms that do survive during the first three years also show a higher rate of survival afterwards.

In Panel B of Table 20, we examine failure rates for a sample of settled firms matched with a sample of firms that were not involved in any securities class action litigation during our sample period.

The difference between ratios across intervals of time is significant (p-value=0.0004) only for the firms that were delisted between 6 and 9 months after a settlement announcement. Surprisingly, over this interval, the delisting ratio of settled firms is lower than the ratio of the matching firms, which is not consistent with our hypothesis. However, for the whole sample, we observe that 17.34 percent of settled firms fail which compares to 8.67 percent for the non-sued sample. In conclusion, we observe that settled firms have a significantly lower probability of survival than the non-sued firms (p-value=0.0000).

Chapter 3: On the effectiveness of securities class action litigation

3.1 Who are the winners and losers in securities class action lawsuits?

Many authors such as Alexander (1991) have expressed their suspicion that a significant proportion of securities class action lawsuits may not be based on merits but may be brought on by investors – often solicited by the lawfirms they eventually “hire” - as a means of recovering part of the losses from their investment in a certain firm. Although it is impossible to determine in hindsight whether a case was merited or not, we will try to “shine some light” on the question whether securities class action lawsuits are effective both in punishing the firm and its officers who were accused of wrongdoing and in pairing the losses of the outside investors who were hurt by these actions.

The first interesting fact in securities class action lawsuits is that although for every settlement the officers of the defending firm are undertaking the settlement negotiations with the plaintiff parties, they are typically paying only a small portion of the settlement fund out of their own pockets. In most cases, the officers’ contribution to the settlement is covered by their legal liability insurance. Although this already appears to be a textbook example of a principal-agent-problem, it gets even more interesting: the defending officers’ legal liability insurance only covers the legal expenses of its policy holders if they do not admit and have not been proven guilty of the alleged crime. Clearly, if the officers admitted their guilt or decided not to settle the case but fight it out in court, they would run the risk that their legal liability insurance would not pick up their legal expenses and/or their portion of the settlement fund. By avoiding these steps, officers effectively transfer almost all risk to their insurance companies. It therefore appears that

the only parties who really suffer from a shareholder class action lawsuit are (beside the insurance companies) the new shareholders of the firm, whose wealth partially gets redistributed to the older shareholders and the lawfirms that represent them.

The following table includes a number of interesting summary statistics for our sample of publicly announced settlements from January 1993 to December 2002. Omitted from our analysis are settlements with a “mixed plaintiff class”, which includes besides common stockholders also individuals or institutions that invested in any other of the firm’s securities (such as preferred stock, bonds, notes, options, etc.). Moreover, we deleted observations for which either the size of the settlement fund or the settlement class action period was not fully disclosed. For the remaining sample of 872 shareholder-only lawsuits that were eventually settled, we analyzed to what degree the plaintiffs (the old shareholders) in these lawsuits were able to recover their losses and who eventually paid for the settlement fund. In our study we want to investigate to what extent the “old” investors recover their losses through class action lawsuits. Because it is often argued that class action lawsuits are ineffective in reimbursing old shareholders, we postulate the following hypothesis:

Hypothesis VI

H_0 = Settlements are ineffective in reimbursing the litigating “old” investors.

H_a = Settlements are effective in reimbursing the litigating “old” investors.

3.2 Do “old” shareholders recover their losses?

The results in Table 21 are rather startling: shareholders who held on to their investment throughout the average 415-day class action period²⁰ suffered an average loss of 35.9 percent.

** Insert Table 21 about here **

During the same time period, we found that an investment in the CRSP equally weighted market index would have yielded an average return of approximately 32.5 percent. In other words, the defendant parties’ alleged fraudulent behavior led to an under-performance of their shareholders’ holdings of 68.4 percent during the class action period, or 45.29 percent on an annualized basis. Expressed in dollar terms, we find that, adjusted for changes in the number of shares, the average share price of these firms fell from \$23.74 at the beginning of the class action period to \$15.22 at the end of the class action period, resulting in a loss of \$8.52 per share and taking on average more than \$197 million off the firms’ market capitalization.

Despite these rather substantial losses, we find that the average settlement fund paid by these firms only amounts to slightly more than \$9.4 million, or \$0.17 per share. After subtracting the lawyer’s contingency fees, which averaged 31 percent during our sample period, old shareholders only recovered \$0.12 per share, or 1.4 percent of their initial \$8.52 per-share-loss. The fact that the recovered amount is so small is even more startling since investors in many cases have to wait several years before a settlement was reached and the settlement fund was distributed. Considering the time-value of money in these

²⁰ Although our sample includes all settlements that were publicly announced between January 1993 and December 2002, the class action period dates in some cases all the way back to 1980. All return calculations and comparisons with the market index (as measured by the CRSP equally weighted market index) were performed for the reported start- and end-date of the class action period in each case.

calculations would reduce the recovered amounts even more. Finally, we have to note that lawfirms receive not only their average 31 percent share of the settlement fund, but on average also \$417,625 to cover any fees and expenses they may have incurred in connection with the lawsuit. We are aware that the old shareholders of the firm and the lawfirms that represented them will have to pay taxes on their share of the settlement fund benefiting the government as well from securities class action lawsuits, but this is beyond the scope of the paper.

3.3 Who pays the bill - the “fraudulent defendants” or the new owners of the firm?

Another interesting question we tried to answer focuses on who eventually pays for the settlement – the alleged criminals (the officers of the firm) or the firm’s new shareholders. Because, as we stated earlier, the firm’s officers are in most cases backed by their legal liability insurance, our question really translates into how new shareholders are impacted by a securities class action lawsuit and to what extent their wealth is redistributed to the firm’s old shareholders. In order to appropriately determine how the settlement fund translates into a per-share charge, we recalculated the average number of shares outstanding, but this time at the time a firm entered into a settlement with its plaintiffs. This way, we account for any type of dilution in the number of shares that may have taken place between the end of the class action period (used for our earlier calculations) and the time the settlement was agreed upon. We then add any additional reimbursement of fees and expenses that the defendant firms had to bear on average (\$417,625) to the average settlement fund (\$9,448,248) and divided the resulting amount by the new number of average shares (122,090,846). This resulted in a per-share charge of \$0.08 (see Table 21).

This result has to be viewed with caution for a number of reasons, however: First, it does not represent a change in the market price of the firm's common stock (we will discuss the implications of securities class action lawsuits on the defendant firms' stock prices in more detail below). Rather, it should be interpreted as an indirect per-share charge resulting from the impact of the settlement fund on the firm's bottom line results during the year a lawsuit is settled. We should also note that all lawsuit-related costs (including paid-out settlement funds, and reimbursements of plaintiff and defendant lawyers' fees and expenses) are eventually tax-deductible and may (if the costs are substantial) even be carried back for two years and forward for 20 years and be applied to the tax calculations for these years. But again these calculations are beyond the scope of the paper.

**** Insert Figure 5 about here ****

As discussed earlier, the charge to new shareholders is further reduced by the contribution that is made to the settlement fund by the defending firms' officers. In fact, officers are named as codefendants in approximately eighty percent of the securities class action lawsuits in our sample. In the few cases in which the contribution of the officers was disclosed, it amounted to approximately fifteen percent of the settlement fund. Assuming that this number also holds for the rest of the firms, the \$0.08 per-share charge we calculated above likely translates into a $[(0.8)*(0.85) + (0.2)]*\$0.08=\0.0704 per-share charge to new investors. Officers (or their insurance companies) cover $(0.8)*(0.15)*\$0.08=\0.0096 .

**** Insert Figure 6 about here ****

Although our analysis above may be suitable for showing the cash flows that occur between all involved parties in securities class action lawsuits, it clearly did not provide a

good estimate of the actual losses that new shareholders of the firm incur as a result of a lawsuit. In fact, it is important to recognize that a lawsuit often impacts a firm in ways that cannot always be expressed in monetary terms. Defendant firms not only have to undergo often lengthy discovery procedures (which can tie up considerable manpower and frequently provide the incentive to settle in the first place), but also suffer from the bad publicity and loss of investor confidence that accompany a lawsuit. Surely, the market reaction to these negative factors and the resulting change in the firm's share price are likely the most accurate measure of the loss a new shareholder would suffer as a result of a lawsuit – but even this approach is subject to a number of problems. First, it is unlikely that a class action lawsuit comes as a complete surprise to the market. Despite the “race to the court”, it still takes time for lawfirms to be hired and prepare a complaint against the defendant firm. During this preparation period it is likely that news about an imminent lawsuit “leak” to the market either through insiders of the lawfirm(s) or the plaintiffs themselves. Moreover, in many cases, we observe that lawsuits often follow corrective statements in which firms announce corrections of previous quarterly or yearly results (thereby indirectly admitting accounting or other irregularities). Although these corrective statements are in most cases made voluntarily, in some cases, firms are forced to make these statements by their auditors.

Whether based on rumors about an imminent lawsuit disseminated by insiders in the plaintiff lawfirm (or plaintiffs themselves) or based on the historical experience and resulting expectation of the market in such cases, it is likely that the market “sees a lawsuit coming” before it is actually filed. The inability to determine whether or not a lawsuit was anticipated before it was filed and the possibility that it may have already

been expected during the class action period makes it impossible to determine to what degree the market price of a firm's security changes as a result of a lawsuit that is filed against the firm. In other words, a loss in market value calculated at any point in time before the lawsuit filing date may either be the result of an ongoing reaction of the market to the firm's alleged wrongdoing (particularly if the firm makes more than one corrective statement) or an anticipating move ahead of an imminent lawsuit.

3.4 Abnormal returns by type of legal issue

Several studies have analyzed the effects of lawsuits on publicly traded firms classified by legal issue. Bhagat et al. (1994), for example, find that the type of legal issue affects the magnitude of the abnormal returns. Similarly, Loh and Rathinasamy (2002) classify lawsuits in six allegation categories (False statements, failure-to-disclose material adverse information, M&A, fraud subsamples as senior managers are accused of defrauding the company, breach of fiduciary responsibility and accounting restatements), the nature of plaintiff complaints affects market response. This is also supported by Bhagat et al. (1998) who find that certain types of litigation are more costly for defendants, leading to a larger decline in shareholder wealth. They find that all but corporate governance suits lead to significant negative abnormal returns. In our study, following our allegation classification, we aim to test whether the magnitude of the change in abnormal returns varies by the type of the accusation. We expect that certain types of allegations involve a larger market response than others. Thus, we postulate the following hypothesis:

Hypothesis VII

H_0 = Different types of allegations have different wealth effects.

H_a = There are no differences in wealth effects between different types of allegations.

Our results are provided in Table 22.

**** Insert Table 22 about here ****

For defendants, each type of lawsuit is associated with negative CARs. In our study, the market appears to impose higher sanctions on firms accused to have disseminated misleading information associated with their IPOs. The negative abnormal return associated with allegation 2 (non-laddering IPO suits) exceeds all others. On the other hand, the most frequently committed allegations involve improper accounting practices and violation of GAAP. We observe a clear difference in market reaction to different types of accusations. Given the significant negative reaction for the aggregate sample of firms, these data are consistent with the notion that the type of allegation has an effect on the wealth effects upon filing. The ANOVA F-test (p-value=0.0201) and the Kruskal-Wallis test (p-value=0.0831) support the hypothesis that the wealth effects are different across different types of allegations.

Chapter 4: The impact of the 1998 SLUSA on the litigation process

4.1 Literature review

The enactment of the 1995 PSLRA resulted in unintended consequences that prevented the act from attaining its objectives. One consequence, documented by Dunbar et al. (1996), SEC (1997) and Bliley et al. (1998) was a move by plaintiff lawfirms to state courts. By filing suit in state, rather than federal court, plaintiffs avoided the strict provisions of the 1995 PSLRA which only apply to federal lawsuits. Bliley further documents a delay in the resolution of securities class actions and a low number of settlement amounts following the 1995 Act, likely caused by some uncertainty about what impact the Act would have on the litigation environment, and how courts would implement the Act. Similarly, Dunbar et al. (1996), SEC (1997) and Bliley et al. (1998) document that the total number of lawsuits has not decreased after passage of the 1995 PSLRA. Although the number of lawsuits filed in federal court declined after 1995, it has been met by an equal increase of lawsuits filed in state court. To close the apparent loophole in the 1995 PSLRA and reduce the litigation burden for US firms, Congress passed the 1998 SLUSA which requires all securities class action lawsuits, with a few exceptions, to be filed in federal court, under the provisions of the 1995 PSLRA.

In this part of our study, we examine whether the 1998 SLUSA was effective in reducing litigation activity and whether it reduced the number of meritless class action suits. Because it is impossible to distinguish between merited and unmerited lawsuits, we use settlement amounts to proxy for the merit of a case. We argue that merited lawsuits should settle for higher amounts than unmerited lawsuits. Thus, if the 1998 SLUSA was effective in achieving its objectives, we expect to find reduced litigation activity but

higher settlement amounts after passage of the Act.²¹ Grundfest et al. (1998) assess securities class action activity shortly after passage of the 1998 SLUSA and find that (1) the volume of litigation activity has grown considerably in federal court since the enactment of the Reform Act, (2) average settlement values decreased, (3) more NASDAQ issuers were sued in securities class action than NYSE issuers and (4) high technology issuers persist to be the primary target for lawsuit filings. In addition to testing our hypotheses stated above, we expand Grundfest et al.'s (1998) study and examine differences in filing rates between all major exchanges and between various industries before and after the 1998 SLUSA. In addition, we discuss various provisions of the 1995 PSLRA and examine whether they had an impact on the post-1998-SLUSA litigation environment. Given that many plaintiffs avoided the provisions of the 1995 PSLRA by filing in state court, our tests focus on whether, by forcing lawsuits to be filed in federal court, the 1998 SLUSA effectively enforced the 1995 PSLRA provisions.

4.2 Hypotheses and methodologies

Based on our discussion above, we postulate the following two hypotheses:

Hypothesis VIII

H_0 = The 1998 SLUSA decreased overall litigation activity

H_a = The 1998 SLUSA did not decrease litigation activity

Hypothesis IX

H_0 = The 1998 SLUSA had an increasing effect on settlement amounts in the long-run.

²¹ Note that it takes about two years on average until a lawsuit is settled. Thus, we do not expect to observe larger settlements immediately after the 1998 Act. We do expect to find an increase after 2000/2001, however. In contrast, in the short-run, we expect settlements to decrease as plaintiffs may accept lower settlements for weak or unmerited cases that were filed prior to the 1998 SLUSA.

H_a = The 1998 SLUSA did not increase settlement amounts.

In addition, we investigate whether the new “lead plaintiff” provision of the 1995 PSLRA has effectively been enforced after 1998. The PSLRA, by giving preference to institutions when selecting an appropriate lead plaintiff for a case, intended to boost the participation of institutional investors in securities class action litigation. Institutions, by researching and following up on their investments, fulfill an important monitoring role in the financial markets. Congress aimed to expand institutional involvement so they would not only monitor the firms they invest in but also get involved in the litigation against firms that they believe to have violated the securities laws. To achieve this goal, the Act requires the first plaintiff filing a securities class action to notify investors that the action is pending and informs potential class members of the right to move to be named lead plaintiff. Thus, the PSLRA replaces the 1933 Securities Act “first come, first served” provision that automatically made the first plaintiff the lead plaintiff (which was usually very lucrative and prestigious for the lead plaintiff and his or her lawfirm) with a provision that makes the largest stakeholder the lead plaintiff. In addition to increasing institutional involvement, the provision was also intended to reduce the apparent “rush to the courthouse” by plaintiff firms. By giving plaintiff lawfirms and their clients more time to review whether their cases are really warranted, Congress hoped to reduce the number of unmerited lawsuit filings. Thus, we postulate the following two hypotheses:

Hypothesis X

H_0 = The SLUSA has reduced the “race to the courthouse”, i.e. it has increased the time between the period during which the alleged securities law violations took place and the date a lawsuit is filed against a firm.

H_a = The SLUSA has not reduced the “race to the courthouse”.

On the other hand, by establishing the “lead plaintiff” provision, Congress intended to find the “most adequate plaintiff” defined as the plaintiff that has the largest financial interest in the defendant company. Congress wanted mutual funds, pension plans, etc. to be not only involved in monitoring the firms they invest in but also in bringing wrongdoers to court. These are usually the largest stakeholders, which are now put in charge of leading the plaintiff team (see Martin and Metcalf (2001)). Following this provision, we expect the proportion of institutional plaintiffs to increase, hence hypothesis XI.

Hypothesis XI

H_0 = Following the SLUSA, the proportion of institutional plaintiffs increased.

H_a = Following the SLUSA, the proportion of institutional plaintiffs did not increase.

In addition, the 1995 PSLRA has heightened scienter requirements, is providing a safe harbor for forward-looking statements, and allows for so-called discovery stays, i.e. that discovery proceedings are put on hold when the defendants file a motion to dismiss a case. As a result of the heightened scienter requirements and the safe harbor provision of the 1995 PSLRA, we expect more cases to be dismissed after the 1998 SLUSA. In

addition, we expect that the number of motions to dismiss which are filed by defendants (whether ultimately successful or not) should increase as defendants seek the temporary protection of discovery stays and hope that their case is dismissed under the stricter provisions of the 1995 Act.

Thus we formulate the following hypothesis:

Hypothesis XII

H_0 = Following the SLUSA, more motions to dismiss are filed and more motions to dismiss are granted.

H_a = The SLUSA did not have an impact on the number of motions to dismiss that are filed or on the actual case dismissal rate.

4.3 Results

Table 23 provides results for a variety of univariate tests to examine lawsuit and settlement activity, as well as average settlement across different time periods, i.e. pre-PSLRA, post-PSLRA/pre-SLUSA and post-SLUSA, and across exchanges.

** Insert Table 23 about here **

In Panel A, we observe that the mean (median) number of settlements per month pre-1995 Reform Act is 11.19 (11.00), which is above the 10.45 (10.00) average of the post-1995 Reform Act period. The results from both a t-test and a Mann-Whitney median test indicate that the settlement activity is not significantly different between the two periods. However, when examining settlement amounts per case, we find that the pre-1995 mean (median) of \$8.26 million (\$4.06 million) is significantly lower than the post-1995 mean and median settlement size of \$13.61 million (\$5 million). We use a t-test to test the

significance of differences in means and a Mann-Whitney test to test for the significance of differences in medians. The p-values for both tests indicate a significant increase in mean and median settlement sizes between the two periods. In Panel B, we refute the hypothesis that the 1998 SLUSA decreases litigation activity at a 1 percent level of significance. The average number of lawsuit filings per month prior to the 1998 Standards Act is 11.14 whereas it increases to 20.82 in the post-1998 Standards Act period. We observe no significant difference in settlement activity before and after the 1998 Standards Act. On the other hand, we observe a significant increase in mean and median settlement amounts which is consistent with the notion that settlements increase after the 1998 SLUSA as a result of a possible increase in the proportion of merited case filings. In Panel C, we divide our study period into three sub-periods: the period prior to the 1995 Reform Act; the period between the 1995 Reform Act and the 1998 Standards Act; and the period after the 1998 Standards Act. We use one-way ANOVA and Kruskal-Wallis tests to test whether the three subperiods differ in terms of settlement activity and settlement amounts. In addition, we use t-tests and Mann-Whitney tests to perform pairwise comparisons between the three periods. Confirming the results found above, we find no significant difference in the number of settlements between the periods. At the same time, the increase in settlement amounts is only significant between the post-PSLRA/pre-SLUSA and post-SLUSA period. In Panel D, we report settlement activity and settlement amounts by exchange. We observe that the NASDAQ has the highest settlement activity per month (6.1 settlements on average), followed by the NYSE (3.8) and the AMEX (0.8). The differences are highly significant. Moreover, we find that settlement amounts paid by firms traded on the NYSE are significantly higher than

settlements paid by NASDAQ and AMEX-traded firms. There is no significant difference in settlement sizes between the NASDAQ and AMEX. There is a significant difference in settlement amounts between the NYSE and AMEX, however.

**** Insert Table 24 about here ****

In Table 24, we examine whether the “rush to the courthouse” was tamed by the 1998 SLUSA. We define the time-to-filing as the time period (measured in numbers of days) that elapses between the end of the class action period (during which the securities law violations were allegedly committed) and the date the lawsuit was filed.

Because most IPO-related lawsuits specify the IPO date as the end of the class action period, these lawsuits provide an unbiased sample on which we can test our hypothesis.

In Panel A, we report the results for our IPO sample including laddering cases. It appears that the Standards Act significantly increased the filing delay between the day the securities law violations were allegedly committed and the date on which the class action was filed. For our sample that includes laddering cases, we observe that the average time-to-filing increases from 66.5 days pre-SLUSA to 245.5 days post-SLUSA. For our sample excluding IPO laddering cases reported in Panel B, there is no significant change in the time-to-filing between the pre-SLUSA and post-SLUSA period. In other types of lawsuits, the end of the class action period is often set as the date on which the firm’s stock price was the lowest. Thus, the time-to-filing for non-IPO related lawsuits is not a good indicator of how long a lawfirm waits until it decides to file suit. This is reflected in our results for non-IPO lawsuits Panel C which indicate no significant change in the time-to-filing between the pre-SLUSA and post-SLUSA period.

In Table 25, we present results for a comparison of institutional involvement in securities class action litigation prior to and after the 1998 SLUSA.

**** Insert Table 25 about here ****

Although the involvement of institutions as lead plaintiffs remains relatively low, it does increase from a 3 percent involvement prior to the 1998 SLUSA to a 6 percent involvement after the Act. In order to perform significance tests, we calculate monthly ratios for institutional involvement. We observe no significant increase in average monthly involvement, but a significant increase in median involvement. Despite the insignificant results for our mean test, it appears that institutions are getting more involved in the litigation process, which is what Congress intended.

In Table 26, we provide univariate test results for mean and median dismissal rates for the pre-SLUSA and post-SLUSA period.

**** Insert Table 26 about here ****

Obviously the percentage of motions to dismiss in the pre-1998 period outweighs the one of the post-1998 period given that more than 70 percent of all lawsuits in our sample were filed after the 1998 SLUSA. However there is a strong indication suggesting that there has been a decrease in the dismissal rate following the passage of the SLUSA. Pre-SLUSA results show that 76.6% of motions to dismiss were granted. By comparison, post-SLUSA numbers show that only 21% of the motions were granted, contrary to what we expected. Although we find the decrease in median dismissal rates to be significant, our results for mean dismissal rates are statistically insignificant.

Chapter 5: Driving forces behind litigation activity and settlement amounts

5.1 Methodology

Because we found that litigation activity and settlement amounts vary considerably over time (see our results in Tables 1 and 6), we attempt to identify which factors cause these variations. We consider two models. We use the number of lawsuits in a given month as the regressor in our first model. We consider the number of lawsuits in the 365 calendar days prior to the current month, the market performance in the prior year and a post-1998 variable as explanatory variables. We hypothesize that poor performance in the prior year increases the number of lawsuit filings in the subsequent month. In our second model, the dependant variable is the log of settlement amount paid as a function of the following factors: we consider the natural log of the firm's market capitalization one week before the settlement date, a post-PSLRA/pre-SLUSA dummy, a post-SLUSA dummy, industry dummies, a court jurisdiction dummy, dummies for the type of allegation and finally the annualized percentage price drop during the class action period, (i.e., the time period during which the security law violations were allegedly committed), as explanatory variables. DuCharme et al. (2002) state that poor stock returns are the primary source of damages, and that settlement amounts should be directly related to stock returns, i.e. larger settlements should be associated with smaller returns. Thus we hypothesize that firms pay bigger settlement amounts when price drops are higher during the class action period. We calculate the annualized percentage price drop during the class action period of the settled firms and expect a positive relationship between these variables.

Thus, we model litigation activity as:

$$\text{Number of lawsuits per month } t = \beta_0 + \sum_{m=1}^M \beta_m y_m + \varepsilon_0 \quad (7)$$

Using the variable notation provided in Appendix 1, we write:

$$NUMLAW_t = \beta_0 + \beta_1 LAWPOST98ACT_t + \beta_2 PRELITLAW_t + \beta_3 PRELITMKTRET_t + \varepsilon_0 \quad (8)$$

Similarly, we model the natural log of settlement amounts as:

$$\text{LN_DOLLSET of firm } i = \beta_0 + \sum_{n=1}^N \beta_n z_n + e_0 \quad (9)$$

Again using the notation in Appendix 1, we write:

$$\begin{aligned} LN_DOLLSET_i = & \beta_0 + \beta_1 LN(SIZE_i) + \beta_2 PRICEDROP_i + \beta_3 SETBETWEENACTS_i \\ & + \beta_4 SETPOST98ACT_i + \sum_{n=1}^7 \beta_{5,n} SETINDUSTRY_{i,n} \\ & + \beta_6 SETTLESTATEJURIS_i + \sum_{m=1}^7 \beta_{7,m} ALLEG_{i,m} + \varepsilon_0 \end{aligned} \quad (10)$$

5.2 Results

Table 27 reports the estimation results for our two models.

** Insert Table 27 about here **

Our regression model for equation 8 shows no significance whatsoever. The model fit is poor as documented by a very low adjusted R^2 and none of the coefficient estimates is significant. Thus, we are unable to explain intertemporal patterns in lawsuit activity.

The regression model in equation 10 is applied for a subsample of 380 observations for which we have allegation type information. We limit our study to the seven most frequent industry sectors.

Our regression model for equation 10 results in an adjusted R^2 of 0.40. Settlement amounts do not appear to exhibit any significant relationship with our industry variables, nor with the allegation variables and the jurisdiction dummy. Surprisingly, the annualized

stock price drop during the class action period does not seem to have any significant influence on the settlement amount paid by the firm. Finally, our results indicate that firms settling between acts, after the 1998 Standards Act and firms with a larger market capitalization appear to settle for more than their smaller counterparts. The finding that larger firms settle for more supports the ‘deep pocket’ theory of Alexander (1991). To interpret the economic relevance of some of our coefficient estimates, note that the coefficients in equation 10 have a percentage interpretation. Our results indicate that post 1998 firms pay settlements that are 87.4 percent higher than settlements paid by firms prior to the 1998-SLUSA. Furthermore, a one percent increase in firm size causes a firm’s settlement amount to increase by 0.43%.²² Similar interpretations follow for other significant variables in our model.

The results in Table 27 are interesting in that they indicate that settlement amounts appear to depend on various factors like the size of the defendant firm, the period of the settlement and the allegation type.

²² Use of a logged dependent variable allows interpretation of coefficients as percentage changes in the dependent variable, once an appropriate transformation has been made using the anti-log. For our post 1998 dummy variable, we calculate the percentage change in settlement size for a post 1998 versus pre 1998 firm as $(e^{0.6283}-1)*100\% = 87.44\%$. The coefficient of our logged size variable is more difficult to interpret. Because in this case both the dependant and independent variables are logged, we have to make two transformations. We calculate the effect of a 1% increase in a firm’s market capitalization on the size of its settlement as $\ln(1.01)*(e^{0.3563}-1)*100\%$ or 0.4259%.

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APPENDIX

Appendix 1: Overview of District Courts in the U.S. Judiciary System

| First Circuit | Second Circuit | Third Circuit | Fourth Circuit | Fifth Circuit | Sixth Circuit | Seventh Circuit | Eighth Circuit | Ninth Circuit | Tenth Circuit | Eleventh Circuit | District of Columbia |
|---|---|--|---|---|---|---|--|--|---|---|-----------------------------|
| <p>Maine</p> <p>Massachusetts</p> <p>New Hampshire</p> <p>Rhode Island</p> <p>Puerto Rico</p> | <p>Connecticut</p> <p>New York - Eastern - Northern - Southern - Western</p> <p>Vermont</p> | <p>Delaware</p> <p>New Jersey</p> <p>Pennsylvania - Eastern - Middle - Western</p> <p>Virgin Islands</p> | <p>Maryland</p> <p>North Carolina - Eastern - Middle - Western</p> <p>South Carolina</p> <p>Virginia - Eastern - Western</p> <p>West Virginia - Northern - Southern</p> | <p>Louisiana - Eastern - Middle - Western</p> <p>Mississippi - Northern - Southern</p> <p>Texas - Eastern - Northern - Southern - Western</p> | <p>Kentucky - Eastern - Western</p> <p>Michigan - Eastern - Western</p> <p>Ohio - Northern - Southern</p> <p>Tennessee - Eastern - Middle - Western</p> | <p>Illinois - Central - Northern - Southern</p> <p>Indiana - Northern - Southern</p> <p>Wisconsin - Eastern - Western</p> | <p>Arkansas - Eastern - Western</p> <p>Iowa - Northern - Southern</p> <p>Minnesota</p> <p>Missouri - Eastern - Western</p> <p>Nebraska</p> <p>North Dakota</p> <p>South Dakota</p> | <p>Alaska</p> <p>Arizona</p> <p>California - Central - Eastern - Northern - Southern</p> <p>Hawaii</p> <p>Idaho</p> <p>Montana</p> <p>Nevada</p> <p>Oregon</p> <p>Washington - Eastern - Western</p> <p>Guam</p> <p>Northern Mariana Islands</p> | <p>Colorado</p> <p>Kansas</p> <p>New Mexico</p> <p>Oklahoma - Eastern - Northern - Western</p> <p>Utah</p> <p>Wyoming</p> | <p>Alabama - Middle - Northern - Southern</p> <p>Florida - Middle - Northern - Southern</p> <p>Georgia - Middle - Northern - Southern</p> | <p>District of Columbia</p> |

Appendix 2: Description of Variables in our Lawsuit Dataset

| Lawsuit Variable | Data Source | Description |
|-------------------|-------------|--|
| LAWSUITEXCHANGE | CRSP | Exchange Integer (1=NYSE,2=AMEX, 3=NASDAQ, 4=OTC) |
| LAWSUITNYSE | CRSP | Dummy (=1 if defendant firm trades on NYSE, 0 otherwise) |
| LAWSUITAMEX | CRSP | Dummy (=1 if defendant firm trades on AMEX, 0 otherwise) |
| LAWSUITNASDAQ | CRSP | Dummy (=1 if defendant firm trades on NASDAQ, 0 otherwise) |
| LAWSUITPOST98 | SCAC | Dummy (=1 if lawsuit occurred after 1998 SLUSA, 0 otherwise) |
| ALLEG01 | SCAC | Allegation Dummy (=1 if firm was sued under category “IPO laddering cases”, 0 otherwise) |
| ALLEG02 | SCAC | Allegation Dummy (=1 if firm was sued under category “IPO non-laddering cases”, 0 otherwise) |
| ALLEG03 | SCAC | Allegation Dummy (=1 if firm was sued under category “Misleading or False Statements (General)”, 0 otherwise) |
| ALLEG04 | SCAC | Allegation Dummy (=1 if firm was sued under category “Failure to Disclose Material Adverse Information and Known Risks about Firm’s Future (including Overoptimistic Forecasts)”, 0 otherwise) |
| ALLEG05 | SCAC | Allegation Dummy (=1 if firm was sued under category “Failure to Disclose Existing Business Problems and Misrepresentations about Financial Condition in the Firm’s Past”, 0 otherwise) |
| ALLEG06 | SCAC | Allegation Dummy (=1 if firm was sued under category “Artificially Inflated Financial Results (including Revenue Restatements)”, 0 otherwise) |
| ALLEG07 | SCAC | Allegation Dummy (=1 if firm was sued under category “Improper Accounting Practices and Violations of GAAP”, 0 otherwise) |
| ALLEG08 | SCAC | Allegation Dummy (=1 if firm was sued under category “Fraudulent Transactions”, 0 otherwise) |
| ALLEG09 | SCAC | Allegation Dummy (=1 if firm was sued under category “Insider Trading”, 0 otherwise) |
| ALLEG10 | SCAC | Allegation Dummy (=1 if firm was sued under category “Inflated Analyst Recommendations, Misleading Research Reports”, 0 otherwise) |
| ALLEG11 | SCAC | Allegation Dummy (=1 if firm was sued under category “Other or Unknown”, 0 otherwise) |
| LAWSUITINDUSTRY | CRSP | Industry Integer (from 1 to 12). The industry classifications follow Breeden et al (1989) who construct 12 maximum correlation portfolios. |
| LAWSUITINDUSTRY01 | CRSP | Industry Dummy (=1 if firm is in the Petroleum Industry, 0 otherwise) |
| LAWSUITINDUSTRY02 | CRSP | Industry Dummy (=1 if firm is in the Finance & Real Estate Industry, 0 otherwise) |
| LAWSUITINDUSTRY03 | CRSP | Industry Dummy (=1 if firm is in the Consumer Durables Industry, 0 otherwise) |
| LAWSUITINDUSTRY04 | CRSP | Industry Dummy (=1 if firm is in the Basic Industries Industry, 0 otherwise) |
| LAWSUITINDUSTRY05 | CRSP | Industry Dummy (=1 if firm is in the Food & Tobacco Industry, 0 otherwise) |
| LAWSUITINDUSTRY06 | CRSP | Industry Dummy (=1 if firm is in the Construction Industry, 0 otherwise) |
| LAWSUITINDUSTRY07 | CRSP | Industry Dummy (=1 if firm is in the Capital Goods Industry, 0 otherwise) |

| | | |
|----------------------|------|---|
| LAWSUITINDUSTRY08 | CRSP | Industry Dummy (=1 if firm is in the Transportation Industry, 0 otherwise) |
| LAWSUITINDUSTRY09 | CRSP | Industry Dummy (=1 if firm is in the Utilities Industry, 0 otherwise) |
| LAWSUITINDUSTRY10 | CRSP | Industry Dummy (=1 if firm is in the Textiles & Trade Industry, 0 otherwise) |
| LAWSUITINDUSTRY11 | CRSP | Industry Dummy (=1 if firm is in the Services Industry, 0 otherwise) |
| LAWSUITINDUSTRY12 | CRSP | Industry Dummy (=1 if firm is in the Leisure Industry, 0 otherwise) |
| LAWSUITINDUSTRYOTHER | CRSP | Industry Dummy (=1 if firm is in the "Unknown or other Industry", 0 otherwise) (not falling under Breeden et al's industry classification) |
| LAWSUITTECH | CRSP | Tech Dummy (=1 if firm is in the high-tech sector, 0 otherwise) Follows Cliff and Dennis (2003). Cliff and Dennis classify firms with the following SIC codes as high-tech firms: 2833, 2834, 2835, 2836, 3571, 3572, 3575, 3577, 3578, 3661, 3663, 3669, 3674, 3812, 3823, 3825, 3826, 3827, 3829, 3841, 3845, 4812, 4813, 4899, 7370, 7371, 7372, 7373, 7374, 7375, 7377, 7378, 7379 |
| LEADDEF | SCAC | Defendant dummy (=1 if firm is named as lead defendant, 0 otherwise) |
| LN (SIZE) | CRSP | Natural log of the defendant firms' market capitalization one week prior to the lawsuit |
| LEAK | | 5-day pre-event CAR (-5, -1) |
| PRELITLAW | CRSP | Number of lawsuits in the 365 calendar days prior to the lawsuit announcement |
| PRELITMKTRET | CRSP | Market performance in the 365 calendar days prior to the lawsuit announcement |
| RETURN_CRSP | CRSP | Returns on the CRSP equally-weighted market index (1985-2002) |

Appendix 3: Description of Variables in our Settlement Dataset

| Settlement Variable | Data Source | Description |
|---------------------|-------------|--|
| SETEXCHANGE | CRSP | Exchange Integer (1=NYSE,2=AMEX, 3=NASDAQ, 4=OTC) |
| SETNYSE | CRSP | Dummy (=1 if settling firm trades on NYSE, 0 otherwise) |
| SETAMEX | CRSP | Dummy (=1 if settling firm trades on AMEX, 0 otherwise) |
| SETNASDAQ | CRSP | Dummy (=1 if settling firm trades on NASDAQ, 0 otherwise) |
| SETBETWEENACTS | SCAA | Period Dummy (=1 if Settlement was announced between 1995 PSLRA and 1998 SLUSA) |
| SETPOST98ACT | SCAA | Period Dummy (=1 if Settlement was announced after 1998 SLUSA) |
| ALLEG01 | SCAA | Allegation Dummy (=1 if firm was sued under category "IPO laddering cases", 0 otherwise) |
| ALLEG02 | SCAA | Allegation Dummy (=1 if firm was sued under category "IPO non-laddering cases", 0 otherwise) |
| ALLEG03 | SCAA | Allegation Dummy (=1 if firm was sued under category "Misleading or False Statements (General)", 0 otherwise) |
| ALLEG04 | SCAA | Allegation Dummy (=1 if firm was sued under category "Failure to Disclose Material Adverse Information and Known Risks about Firm's Future (including Overoptimistic Forecasts)", 0 otherwise) |
| ALLEG05 | SCAA | Allegation Dummy (=1 if firm was sued under category "Failure to Disclose Existing Business Problems and Misrepresentations about Financial Condition in the Firm's Past", 0 otherwise) |
| ALLEG06 | SCAA | Allegation Dummy (=1 if firm was sued under category "Artificially Inflated Financial Results (including Revenue Restatements)", 0 otherwise) |
| ALLEG07 | SCAA | Allegation Dummy (=1 if firm was sued under category "Improper Accounting Practices and Violations of GAAP", 0 otherwise) |
| ALLEG08 | SCAA | Allegation Dummy (=1 if firm was sued under category "Fraudulent Transactions", 0 otherwise) |
| ALLEG09 | SCAA | Allegation Dummy (=1 if firm was sued under category "Insider Trading", 0 otherwise) |
| ALLEG10 | SCAA | Allegation Dummy (=1 if firm was sued under category "Inflated Analyst Recommendations, Misleading Research Reports", 0 otherwise) |
| ALLEG11 | SCAA | Allegation Dummy (=1 if firm was sued under category "Other or Unknown", 0 otherwise) |
| DOLLSET | SCAA | Settlement amount |
| PRICEDROP | CRSP | Percentage price drop during class action period |
| OUTSTANDING | CRSP | Average number of outstanding shares during the class period |
| LN(SIZE) | CRSP | Natural log of market capitalization of settled firm one week prior to the settlement announcement |
| SETTLESTATEJURIS | SCAA | Dummy (=1 if state jurisdiction, 0 otherwise) |
| SETINDUSTRY | CRSP | Industry Integer (from 1 to 12). The industry classifications follow Breeden et al (1989) who construct 12 maximum correlation portfolios. |
| SETINDUSTRY01 | CRSP | Industry Dummy (=1 if firm is in the Petroleum Industry, 0 otherwise) |
| SETINDUSTRY02 | CRSP | Industry Dummy (=1 if firm is in the Finance & Real Estate Industry, 0 otherwise) |
| SETINDUSTRY03 | CRSP | Industry Dummy (=1 if firm is in the Consumer Durables Industry, |

| | | |
|------------------|------|--|
| | | 0 otherwise) |
| SETINDUSTRY04 | CRSP | Industry Dummy (=1 if firm is in the Basic Industries Industry, 0 otherwise) |
| SETINDUSTRY05 | CRSP | Industry Dummy (=1 if firm is in the Food & Tobacco Industry, 0 otherwise) |
| SETINDUSTRY06 | CRSP | Industry Dummy (=1 if firm is in the Construction Industry, 0 otherwise) |
| SETINDUSTRY07 | CRSP | Industry Dummy (=1 if firm is in the Capital Goods Industry, 0 otherwise) |
| SETINDUSTRY08 | CRSP | Industry Dummy (=1 if firm is in the Transportation Industry, 0 otherwise) |
| SETINDUSTRY09 | CRSP | Industry Dummy (=1 if firm is in the Utilities Industry, 0 otherwise) |
| SETINDUSTRY10 | CRSP | Industry Dummy (=1 if firm is in the Textiles & Trade Industry, 0 otherwise) |
| SETINDUSTRY11 | CRSP | Industry Dummy (=1 if firm is in the Services Industry, 0 otherwise) |
| SETINDUSTRY12 | CRSP | Industry Dummy (=1 if firm is in the Leisure Industry, 0 otherwise) |
| SETINDUSTRYOTHER | CRSP | Industry Dummy (=1 if firm is in the "Unknown or other Industry", 0 otherwise) (not falling under Breeden et al's industry classification) |
| RETURN_CRSP | CRSP | Returns on the CRSP equally-weighted market index (1980-2002) |

TABLES AND FIGURES

FIGURE 1: AVERAGE ABNORMAL RETURNS DURING THE 200 DAYS BEFORE AND AFTER A LAWSUIT ANNOUNCEMENT

We calculate daily average abnormal returns during the 200 trading days prior to and after a lawsuit announcement (day 0). Our sample consists of 1,163 lawsuit announcements against firms which are listed on CRSP and for which we could identify all relevant information for our study.

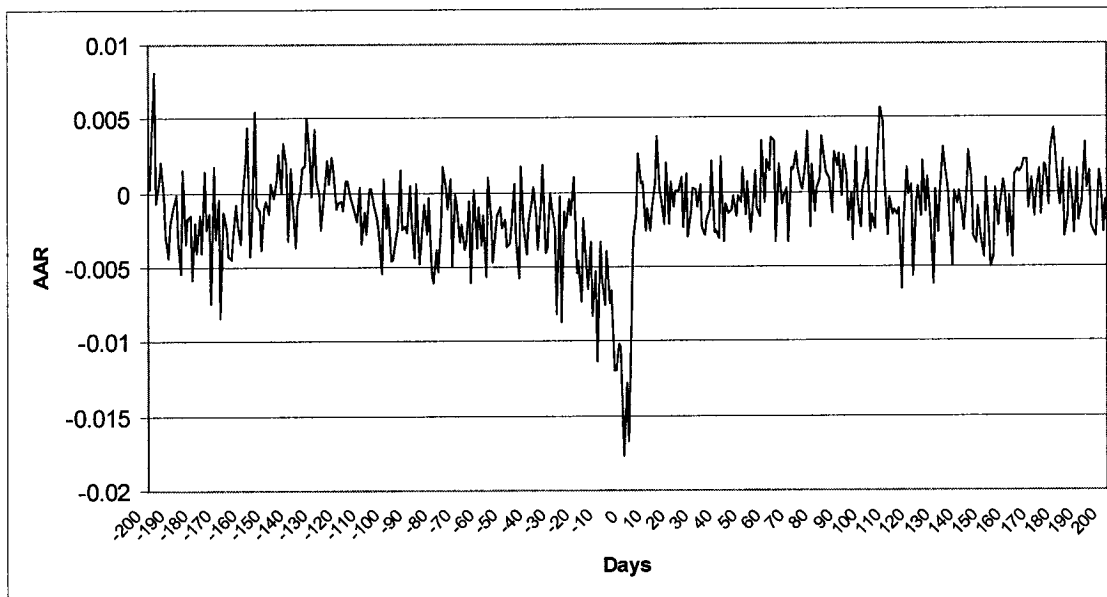


FIGURE 2: CUMULATIVE ABNORMAL RETURNS DURING THE 200 DAYS BEFORE AND AFTER A LAWSUIT ANNOUNCEMENT

We calculate cumulative abnormal returns during the 200 trading days prior to and after a lawsuit announcement (day 0). Our sample consists of 1,163 lawsuit announcements against firms which are listed on CRSP and for which we could identify all relevant information for our study.

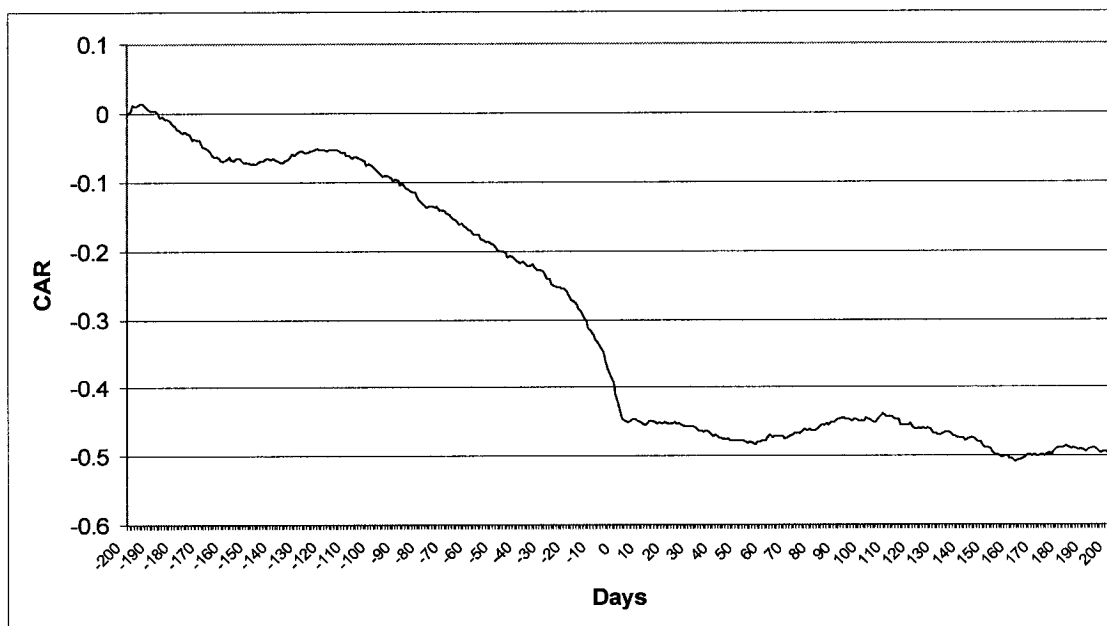


FIGURE 3: AVERAGE ABNORMAL RETURNS DURING THE 200 DAYS BEFORE AND AFTER A SETTLEMENT ANNOUNCEMENT

We calculate cumulative abnormal returns during the 200 trading days prior to and after a settlement announcement (day 0). Our sample consists of 357 settlement announcements against firms which are listed on CRSP and for which we could identify all relevant information for our study. Settlements for which the exact date is unknown are excluded.

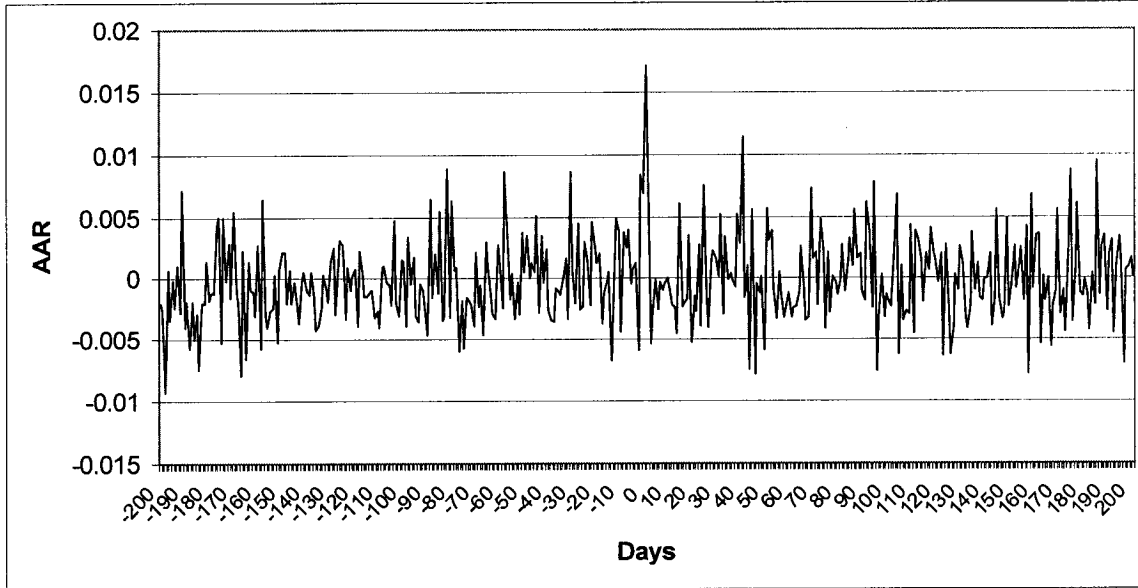


FIGURE 4: CUMULATIVE ABNORMAL RETURNS DURING THE 200 DAYS BEFORE AND AFTER A SETTLEMENT ANNOUNCEMENT

We calculate cumulative abnormal returns during the 200 trading days prior to and after a settlement announcement (day 0). Our sample consists of 357 settlement announcements against firms which are listed on CRSP and for which we could identify all relevant information for our study. Settlements for which the exact date is unknown are excluded.

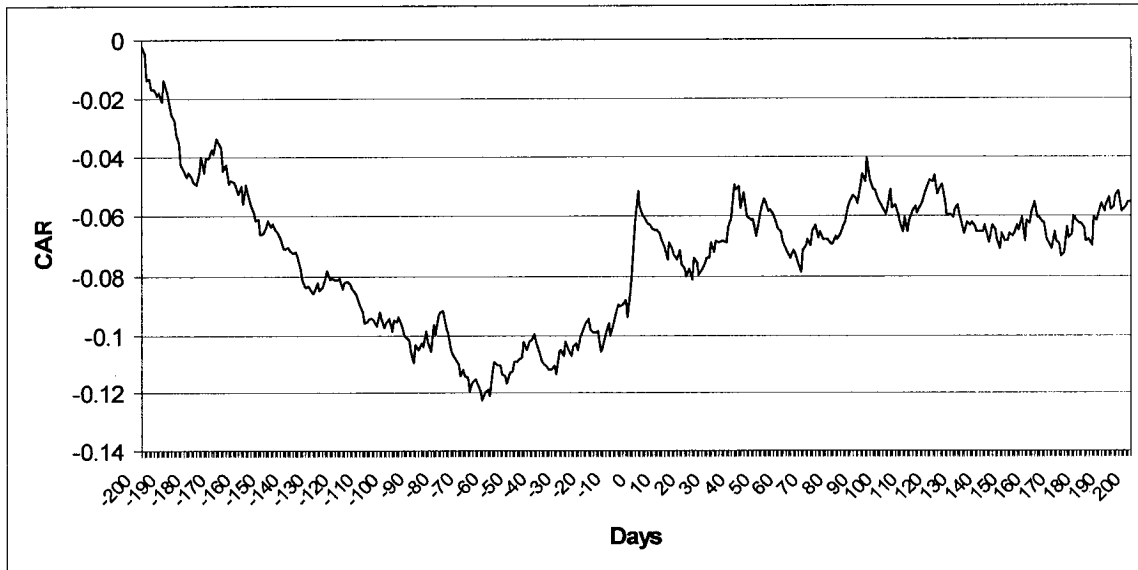


FIGURE 5: "WHO EATS THE PIE?" - A PERCENTAGE BREAKDOWN OF THE CASH FLOWS TO THE BENEFICIARIES OF SECURITIES CLASS ACTION LAWSUITS

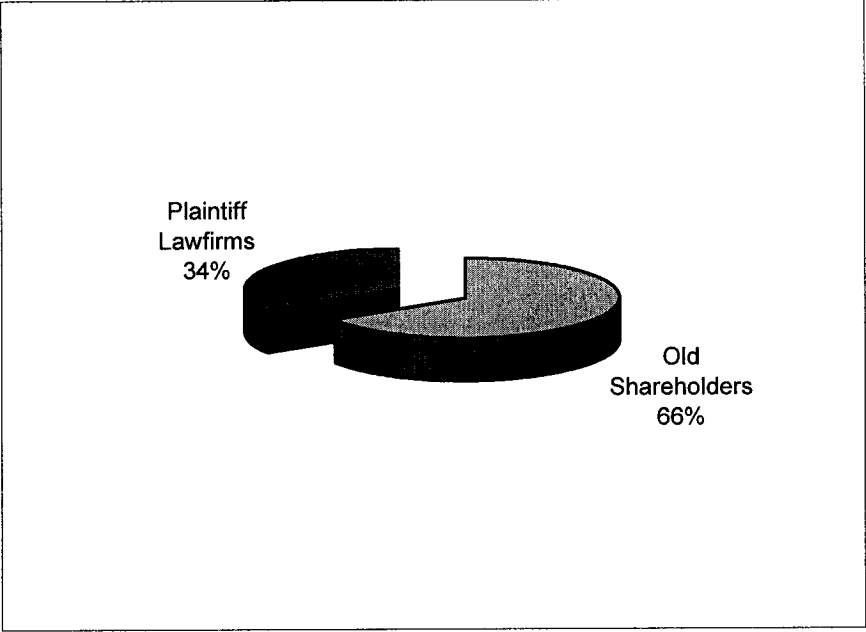


FIGURE 6: "WHO BAKES THE PIE?" - A PERCENTAGE BREAKDOWN OF THE LOSSES INCURRED BY THE DEFENDANT PARTIES IN SECURITIES CLASS ACTION LAWSUITS

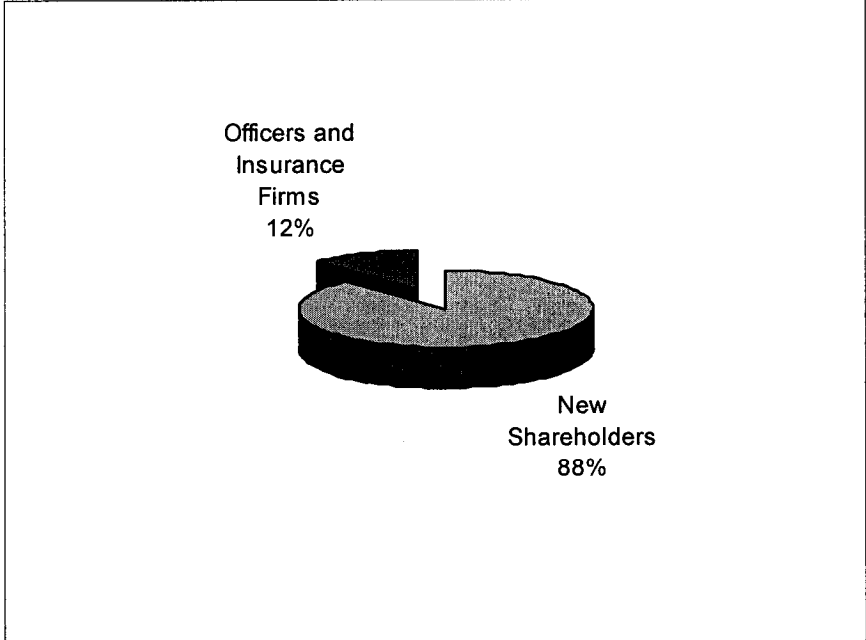


TABLE 1: TOTAL NUMBER OF LAWSUIT FILINGS

We present summary statistics for the number of lawsuit filings per year before and after the 1998 SLUSA. We collect data for 1,687 lawsuit filings from Stanford’s Securities Class Action Clearinghouse (<http://securities.stanford.edu>). We exclude lawsuits against foreign firms with ADRs traded in the US, non-publicly traded firms and firms which are not listed on CRSP. We further exclude lawsuits for which Stanford’s Securities Class Action Clearinghouse does not provide adequate information, i.e. lawsuits for which we are missing important information that is crucial for our study. The resulting sample consists of 1,478 securities class action lawsuits filed between January 1996 and December 2002. In the last four rows, we calculate the average number of securities class actions in various subsamples. We report yearly averages for the whole sample as well as the periods before and after the 1998 Securities Litigation Uniform Standards Act (SLUSA), enacted on May 13, 1998. In the last row, we calculate an adjusted post-SLUSA average, which excludes all laddering and analyst cases. (see Table 2). The last column represents the percentage of lawsuit filings in each year relative to the total number of lawsuits in the sample. (Note that our averages are based on 28.4 months of pre-1998 SLUSA litigation data and 55.6 months of post-1998 SLUSA data.)

| Years | Lawsuit filings | Percentage Total (%) |
|------------------------------------|------------------------|-----------------------------|
| 1996 | 85 | 5.75 |
| 1997 | 154 | 10.42 |
| 1998 | 213 | 14.41 |
| 1999 | 180 | 12.18 |
| 2000 | 197 | 13.33 |
| 2001 | 449* | 30.38 |
| 2002 | 200 | 13.53 |
| Total | 1,478 | |
| Sample Average | 211.14 | |
| Average Pre-SLUSA | 135.21 | |
| Average Post-SLUSA | 249.93 | |
| Adjusted Average Post-SLUSA | 184.75 | |

* Note that the unusually high number of lawsuits that we observe in 2001 is largely driven by 281 lawsuits that were filed by the SEC against IPO firms and their underwriters in connection with alleged share misallocations or so-called “laddering schemes” during that year.

TABLE 2: NUMBER OF LAWSUITS BY ALLEGATION TYPE

We follow Bhagat et al. (1998) and Bajaj et al. (2000) who categorize lawsuits by type of allegation. We identify eleven distinct allegation categories. We first provide a breakdown by year and by type of allegation. Due to their special nature, we report IPO laddering lawsuits as a separate type of allegation. The litigation data used in this table was obtained primarily from Stanford's Securities Class Action Clearinghouse (<http://securities.stanford.edu>). Please note that our sorting criteria are not exclusive, i.e. several firms in our sample were accused of more than one violation of the securities laws. The total number of lawsuit allegations reported in this table (1,972) thus exceeds the total number of lawsuits in our sample (1,478).

| Type of Allegation | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total | Percentage Total (%) | Average number of case filings per year | | |
|---|------|------|------|------|------|------|------|-------|-------------------------|---|-----------|------------|
| | | | | | | | | | | Whole sample | Pre-SLUSA | Post-SLUSA |
| ALLEG01 IPO Laddering | 0 | 1 | 1 | 1 | 5 | 281 | 8 | 297 | 15.06 | 42.43 | 0.42 | 63.88 |
| ALLEG02 IPO Non-laddering | 11 | 20 | 25 | 9 | 14 | 15 | 7 | 101 | 5.12 | 14.43 | 17.32 | 12.95 |
| ALLEG03 Misleading or False Statements (General) | 25 | 46 | 72 | 65 | 62 | 61 | 75 | 406 | 20.59 | 58.00 | 41.41 | 66.47 |
| ALLEG04 Failure to Disclose Material Adverse Information and Known Risks about Firm's Future (Including Overoptimistic Forecasts) | 14 | 33 | 34 | 37 | 30 | 25 | 45 | 218 | 11.05 | 31.14 | 25.77 | 33.88 |
| ALLEG05 Failure to Disclose Existing Business Problems in the Firm's Past | 20 | 36 | 48 | 44 | 50 | 33 | 38 | 269 | 13.64 | 38.43 | 29.58 | 42.95 |
| ALLEG06 Artificially Inflated Financial Results (including Revenue Restatements) | 11 | 20 | 33 | 23 | 34 | 29 | 31 | 181 | 9.18 | 25.86 | 20.28 | 28.71 |
| ALLEG07 Improper Accounting Practices and Violations of GAAP | 18 | 21 | 41 | 36 | 45 | 35 | 54 | 250 | 12.68 | 35.71 | 23.24 | 42.09 |
| ALLEG08 Fraudulent Transactions | 5 | 6 | 3 | 7 | 1 | 4 | 8 | 34 | 1.72 | 4.86 | 5.07 | 4.75 |
| ALLEG09 Insider Trading | 12 | 19 | 26 | 22 | 27 | 32 | 19 | 157 | 7.96 | 22.43 | 15.63 | 25.90 |
| ALLEG10 Inflated Analyst Recommendations, Misleading Research Reports | 0 | 0 | 1 | 0 | 0 | 1 | 4 | 6 | 0.30 | 0.86 | - | 1.29 |
| ALLEG11 Other or Unknown | 2 | 10 | 14 | 14 | 6 | 5 | 2 | 53 | 2.69 | 7.57 | 8.03 | 7.34 |
| Total | 118 | 212 | 298 | 258 | 274 | 521 | 291 | 1,972 | | | | |

TABLE 3: NUMBER OF LAWSUITS BY INDUSTRY SECTOR

We employ an industry classification based on Breeden et al's (1989) maximum correlation portfolios and report the number of securities class action filings per year for each industry sector. Because Breeden et al's industry classification is not exhaustive, we state lawsuit frequencies for those firms that do not fall within Breeden et al's industry groups in the last row of this table. The second column lists truncated two-digit SIC codes for the industries included in each industry group. The last three columns present yearly averages for the whole sample as well as the sub-periods prior to and after passage of the 1998 SLUSA.

| Variables | Industry Sector | SIC Codes | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total | Percentage Total (%) | Average number of case filings per year | | |
|-----------|-----------------------|--|-----------|------------|------------|------------|------------|------------|------------|--------------|----------------------|---|-----------|------------|
| | | | | | | | | | | | | Whole sample | Pre-SLUSA | Post-SLUSA |
| IND01 | Petroleum | 13, 29 | 1 | 1 | 4 | 1 | 1 | 0 | 7 | 15 | 1.01 | 2.14 | 1.27 | 2.59 |
| IND02 | Finance & Real Estate | 60, 61, 62, 63, 64, 65, 66, 67, 68, 69 | 7 | 16 | 17 | 14 | 25 | 14 | 27 | 120 | 8.12 | 17.14 | 11.41 | 20.07 |
| IND03 | Consumer Durables | 25, 30, 36, 37, 50, 55, 57 | 8 | 24 | 33 | 34 | 28 | 82 | 25 | 234 | 15.83 | 33.43 | 19.86 | 40.36 |
| IND04 | Basic Industries | 10, 12, 14, 24, 26, 28, 33 | 5 | 6 | 16 | 16 | 17 | 11 | 12 | 83 | 5.62 | 11.86 | 6.76 | 14.46 |
| IND05 | Food & Tobacco | 01, 20, 21, 54 | 2 | 3 | 2 | 2 | 4 | 1 | 4 | 18 | 1.22 | 2.57 | 2.11 | 2.81 |
| IND06 | Construction | 15, 16, 17, 32, 52 | 1 | 0 | 1 | 1 | 1 | 3 | 0 | 7 | 0.47 | 1 | 0.42 | 1.29 |
| IND07 | Capital Goods | 34, 35, 38 | 16 | 18 | 28 | 16 | 17 | 30 | 13 | 138 | 9.34 | 19.71 | 19.86 | 19.64 |
| IND08 | Transportation | 40, 41, 42, 44, 45, 47 | 2 | 1 | 3 | 1 | 3 | 6 | 0 | 16 | 1.08 | 2.29 | 1.27 | 2.81 |
| IND09 | Utilities | 46, 48, 49 | 6 | 7 | 8 | 13 | 25 | 51 | 42 | 152 | 10.28 | 21.71 | 6.34 | 29.57 |
| IND10 | Textiles & Trade | 22, 23, 31, 51, 53, 56, 59 | 4 | 7 | 12 | 18 | 11 | 21 | 15 | 88 | 5.95 | 12.57 | 5.49 | 16.19 |
| IND11 | Services | 72, 73, 75, 80, 82, 89 | 17 | 40 | 53 | 53 | 62 | 211 | 47 | 483 | 32.68 | 69 | 33.38 | 87.19 |
| IND12 | Leisure | 27, 58, 70, 78, 79 | 2 | 10 | 10 | 5 | 2 | 8 | 7 | 44 | 2.98 | 6.29 | 7.18 | 5.83 |
| | Other | All Other SIC Codes | 14 | 21 | 26 | 6 | 1 | 11 | 1 | 80 | 5.41 | 11.43 | 19.86 | 7.12 |
| | Total | | 85 | 154 | 213 | 180 | 197 | 449 | 200 | 1,478 | | | | |

TABLE 4: NUMBER OF LAWSUITS BY COURT CIRCUIT

We employ a circuit classification based on Appendix 1 and report the number of lawsuit filings per year in each court circuit. Circuit 12 represents the District of Columbia. In two cases, we were unable to determine the jurisdiction in which the lawsuit was filed. These cases are listed under the category "unknown". The last three columns present yearly averages for the whole sample as well as the sub-periods prior to and after passage of the 1998 SLUSA.

| Circuit | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total | Percentage Total (%) | Average number of case filings per year | | |
|--------------|-----------|------------|------------|------------|------------|------------|------------|--------------|----------------------|---|-----------|------------|
| | | | | | | | | | | Whole sample | Pre-SLUSA | Post-SLUSA |
| Circuit 1 | 6 | 8 | 14 | 11 | 19 | 10 | 11 | 79 | 5.35 | 11.29 | 7.61 | 13.17 |
| Circuit 2 | 13 | 25 | 46 | 24 | 36 | 315 | 42 | 501 | 33.9 | 71.57 | 24.08 | 95.83 |
| Circuit 3 | 7 | 9 | 10 | 9 | 7 | 7 | 4 | 53 | 3.59 | 7.57 | 8.45 | 7.12 |
| Circuit 4 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 5 | 0.34 | 0.71 | - | 1.08 |
| Circuit 5 | 7 | 6 | 22 | 19 | 14 | 11 | 16 | 95 | 6.43 | 13.57 | 8.45 | 16.19 |
| Circuit 6 | 4 | 5 | 12 | 9 | 11 | 6 | 14 | 61 | 4.13 | 8.71 | 5.92 | 10.14 |
| Circuit 7 | 1 | 7 | 5 | 9 | 10 | 7 | 16 | 55 | 3.72 | 7.86 | 3.80 | 9.93 |
| Circuit 8 | 10 | 18 | 13 | 18 | 18 | 11 | 29 | 117 | 7.92 | 16.71 | 14.79 | 17.70 |
| Circuit 9 | 23 | 56 | 60 | 50 | 41 | 58 | 40 | 328 | 22.19 | 46.86 | 44.37 | 48.13 |
| Circuit 10 | 3 | 4 | 7 | 10 | 11 | 10 | 8 | 53 | 3.59 | 7.57 | 3.80 | 9.50 |
| Circuit 11 | 4 | 6 | 8 | 7 | 14 | 4 | 6 | 49 | 3.32 | 7.00 | 5.07 | 7.99 |
| Circuit 12 | 6 | 10 | 16 | 13 | 13 | 8 | 14 | 80 | 5.41 | 11.43 | 8.45 | 12.95 |
| Unknown | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0.14 | 0.29 | 0.42 | 0.22 |
| Total | 85 | 154 | 213 | 180 | 197 | 449 | 200 | 1,478 | | | | |

TABLE 5: LITIGATION RATES FOR FIRMS LISTED ON THE NYSE, AMEX AND NASDAQ

We compute average litigation rates for companies listed on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and NASDAQ. We obtained the exchange listing of each firm at the date the lawsuit was filed from CRSP. The number of firms listed on the three exchanges was taken from yearly NASDAQ market statistics, available online at <http://www.marketdata.nasdaq.com/asp/Sec1ComComp.asp> (accessed October 2003). Details on the number of companies listed on the OTC Bulletin Board and on regional exchanges were not available at the time of our study. Therefore, we only report the number of litigations for this category. In the first row of each panel, we calculate the average number of firms listed on the respective exchange during the sample period as well as during the sub-periods before and after the 1998 SLUSA. Since the number of exchange listings is only available on a yearly basis, we calculate sub-period averages around the May 13, 1998 Securities Litigation and Uniform Standards Act (SLUSA) by dividing 1998 into 4.4 months of pre-SLUSA and 7.6 months of post-SLUSA data and then adding full-year data for the preceding or subsequent years. In the second row of each panel, we report the average number of lawsuit filings against companies listed on each of the exchanges. In the last row of each panel, we calculate the average litigation rate for the exchange.

| | Yearly Average | | | Percentage Total (%) |
|---|----------------|-----------|------------|----------------------|
| | Whole sample | Pre-SLUSA | Post-SLUSA | |
| Panel A. All Major Exchanges (NYSE, AMEX, NASDAQ) | | | | |
| Number of Companies Listed on the NASDAQ, NYSE and AMEX | 8,468.57 | 9,211.86 | 8,088.91 | |
| Number of Lawsuits Against Companies Listed on the NASDAQ, NYSE and AMEX | 193.86 | 117.46 | 232.88 | 91.81 |
| Overall Litigation Rate | 2.29% | 1.28% | 2.88% | |
| Panel B. NYSE | | | | |
| Number of Companies Listed on the NYSE | 2,933.86 | 2,998.23 | 2,900.98 | |
| Number of Lawsuits Against Companies Listed on the NYSE | 59.43 | 40.99 | 68.85 | 28.15 |
| NYSE Litigation Rate | 2.03% | 1.37% | 2.37% | |
| Panel C. AMEX | | | | |
| Number of Companies Listed on the AMEX | 742.14 | 762.39 | 731.8 | |
| Number of Lawsuits Against Companies Listed on the AMEX | 4.43 | 2.96 | 5.18 | 2.10 |
| AMEX Litigation Rate | 0.60% | 0.39% | 0.71% | |
| Panel D. NASDAQ | | | | |
| Number of Companies Listed on the NASDAQ | 4,792.57 | 5,451.24 | 4,456.13 | |
| Number of Lawsuits Against Companies Listed on the NASDAQ | 130 | 73.52 | 158.85 | 61.57 |
| NASDAQ Litigation Rate | 2.71% | 1.35% | 3.56% | |
| Panel E. OTC + Regional Exchanges | | | | |
| Number of Lawsuits Against OTC Companies and Firms Traded on Regional Exchanges | 17.29 | 17.75 | 17.05 | 8.19 |

TABLE 6: NUMBER OF SETTLEMENTS, SETTLEMENT AMOUNTS AND AVERAGE SETTLEMENT AMOUNTS

We collect information on 1,839 securities class action settlements which were publicly announced between January 1993 and December 2002 from the *Securities Class Action Alert (SCAA)*, a monthly newsletter published by Institutional Shareholder Services (ISS). In the last four columns, we divide our sample into sub-periods around the 1995 PSLRA and the 1998 SLUSA. We calculate average settlement numbers and amounts before the passing of the 1995 PSLRA, between the passing of the 1995 PSLRA and the 1998 SLUSA, after the enactment of the 1998 SLUSA and finally for the whole period after the 1995 PSLRA. In column 2, we report the total number of settlements per year. In columns 3 and 4, we calculate total and average settlement amounts per year, respectively. Note that all settlement amounts have been converted to 1993 dollars based on annual CPI inflation rates published by the Bureau of Labor Statistics (BLS).

| Year | Total Number of Settlements per Year | Total Dollar Settlement Amounts per Year (in \$Million) | Average Settlement Amounts per Case (in \$Million) |
|-------------------------------------|--------------------------------------|---|--|
| 1993 | 128 | \$997.50 | \$7.79 |
| 1994 | 133 | \$1,076.58 | \$8.09 |
| 1995 | 142 | \$1,252.81 | \$8.82 |
| 1996 | 133 | \$1,069.08 | \$8.04 |
| 1997 | 129 | \$1,141.01 | \$8.85 |
| 1998 | 108 | \$1,140.60 | \$10.56 |
| 1999 | 106 | \$1,620.45 | \$15.29 |
| 2000 | 141 | \$1,723.22 | \$12.31 |
| 2001 | 127 | \$2,614.83 | \$20.59 |
| 2002 | 135 | \$2,637.22 | \$19.53 |
| Total | 1,282 | \$15,273.30 | \$11.92 |
| Sample Average | 128.20 | \$1,527.33 | \$11.92 |
| Average Pre-PSLRA | 134.33 | \$1,108.97 | \$8.26 |
| Average Post-PSLRA-Pre-SLUSA | 128.57 | \$1,174.34 | \$9.13 |
| Average Post-SLUSA | 124.07 | \$1,972.77 | \$15.90 |
| Average Post-PSLRA | 125.57 | \$1,706.63 | \$13.59 |

TABLE 7: NUMBER OF SETTLEMENTS AND SETTLEMENT AMOUNTS BY COURT CIRCUIT

We employ a circuit classification following Appendix 1 and report the number of settlements and settlement amounts per year in each court circuit. Circuit 12 represents the District of Columbia. In three cases, we were unable to determine the jurisdiction in which the settlement was filed. We provide summary statistics for the number of settlements, total settlement amounts and average settlement amount per case in each court circuit for the whole sample and across various subperiods prior to and after the 1995 PSLRA and the 1998 SLUSA.

| Court Circuit | Panel A: Number of Settlements | | | | | | | | | | Panel B: Settlement Amounts (in \$ Millions) | | | | | |
|---------------|--------------------------------|-----------|-------------|------------|------------|------------|--------------------|----------------|---------------|---------------|--|----------------|------------------------------------|----------------|----------------|------------|
| | Total | Pre-PSLRA | | | | | Post-PSLRA | | | | | Total | Average Settlement Amount per Case | | | |
| | | Pre-PSLRA | PSLRA-SLUSA | Post-SLUSA | Post-PSLRA | Post-PSLRA | Pre-PSLRA | PSLRA-SLUSA | Post-SLUSA | Post-PSLRA | Post-PSLRA | | Whole sample | Pre-PSLRA | PSLRA-SLUSA | Post-SLUSA |
| Circuit 1 | 75 | 6.67 | 9.43 | 7.07 | 7.86 | 7.86 | \$434.64 | \$5.80 | \$4.72 | \$5.02 | \$6.96 | \$6.18 | \$5.02 | \$6.96 | \$6.18 | |
| Circuit 2 | 217 | 25.00 | 23.15 | 18.85 | 20.28 | 20.28 | \$2,789.39 | \$12.85 | \$8.14 | \$11.45 | \$17.74 | \$15.35 | \$11.45 | \$17.74 | \$15.35 | |
| Circuit 3 | 156 | 20.00 | 15.00 | 13.07 | 13.72 | 13.72 | \$2,282.02 | \$14.63 | \$9.06 | \$8.77 | \$23.47 | \$18.10 | \$8.77 | \$23.47 | \$18.10 | |
| Circuit 4 | 28 | 1.33 | 1.71 | 4.28 | 3.43 | 3.43 | \$409.58 | \$14.63 | \$2.46 | \$2.51 | \$19.51 | \$16.65 | \$2.51 | \$19.51 | \$16.65 | |
| Circuit 5 | 81 | 5.33 | 12.00 | 7.93 | 9.29 | 9.29 | \$1,256.08 | \$15.51 | \$10.35 | \$9.05 | \$22.63 | \$16.77 | \$9.05 | \$22.63 | \$16.77 | |
| Circuit 6 | 54 | 5.33 | 4.71 | 5.78 | 5.43 | 5.43 | \$698.49 | \$12.94 | \$4.05 | \$7.11 | \$20.60 | \$16.67 | \$7.11 | \$20.60 | \$16.67 | |
| Circuit 7 | 57 | 5.33 | 5.14 | 6.21 | 5.86 | 5.86 | \$872.71 | \$15.31 | \$8.87 | \$9.37 | \$21.34 | \$17.82 | \$9.37 | \$21.34 | \$17.82 | |
| Circuit 8 | 30 | 3.00 | 1.71 | 3.64 | 3.00 | 3.00 | \$687.31 | \$22.91 | \$4.60 | \$7.04 | \$36.37 | \$30.76 | \$7.04 | \$36.37 | \$30.76 | |
| Circuit 9 | 406 | 46.66 | 38.57 | 37.71 | 38.00 | 38.00 | \$3,843.05 | \$9.47 | \$8.39 | \$8.45 | \$10.84 | \$10.03 | \$8.45 | \$10.84 | \$10.03 | |
| Circuit 10 | 48 | 4.34 | 6.00 | 4.50 | 5.00 | 5.00 | \$551.46 | \$11.49 | \$14.85 | \$11.47 | \$9.40 | \$10.23 | \$11.47 | \$9.40 | \$10.23 | |
| Circuit 11 | 89 | 9.00 | 7.29 | 9.64 | 8.85 | 8.85 | \$1,082.13 | \$12.16 | \$7.65 | \$15.69 | \$13.53 | \$14.13 | \$15.69 | \$13.53 | \$14.13 | |
| Circuit 12 | 2 | 0.00 | 0.00 | 0.42 | 0.28 | 0.28 | \$12.05 | \$6.03 | \$0.00 | \$0.00 | \$6.14 | \$6.14 | \$0.00 | \$6.14 | \$6.14 | |
| Unknown | 39 | 2.33 | 0.99 | 7.42 | 2.62 | 2.62 | \$354.39 | \$9.09 | \$11.50 | \$14.88 | \$6.92 | \$14.94 | \$14.88 | \$6.92 | \$14.94 | |
| Total | 1,282 | | | | | | \$15,273.30 | \$11.92 | \$8.26 | \$9.13 | \$15.90 | \$13.59 | \$9.13 | \$15.90 | \$13.59 | |

TABLE 8: NUMBER OF SETTLEMENTS AND SETTLEMENT AMOUNTS BY EXCHANGE

We categorize settlements based on exchange listings of settling firms on their settlement date. For each exchange, we provide the number of settlements and total settlement amounts per year in Panel A and B. In Panel C, we report average settlement amounts per case on each exchange. The last four rows provide summary statistics for various subperiods before and after the 1995 PSLRA and the 1998 SLUSA. We exclude 6 firms out of the 1282 because we could not identify on which exchange they trade.

| Year | Panel A: Number of Settlements | | | | Panel B: Total Settlement Amounts (in \$ Million) | | | | Panel C: Average Settlement Amounts per Case (in \$ Million) | | | |
|----------------------------|--------------------------------|---------------|--------------|---------------|--|-------------------|-----------------|-------------------|---|----------------|---------------|----------------|
| | Total | NYSE | AMEX | NASDAQ | Total | NYSE | AMEX | NASDAQ | Total | NYSE | AMEX | NASDAQ |
| 1993 | 128 | 63 | 11 | 54 | \$997.50 | \$532.34 | \$92.36 | \$372.81 | \$7.79 | \$8.45 | \$8.40 | \$6.90 |
| 1994 | 133 | 64 | 9 | 60 | \$1,076.58 | \$629.28 | \$55.08 | \$392.22 | \$8.09 | \$9.83 | \$6.12 | \$6.54 |
| 1995 | 141 | 59 | 10 | 72 | \$1,251.81 | \$686.27 | \$112.36 | \$453.19 | \$8.88 | \$11.63 | \$11.24 | \$6.29 |
| 1996 | 133 | 35 | 14 | 84 | \$1,069.08 | \$544.90 | \$66.47 | \$457.70 | \$8.04 | \$15.57 | \$4.75 | \$5.45 |
| 1997 | 127 | 48 | 12 | 67 | \$1,135.66 | \$603.60 | \$96.62 | \$435.44 | \$8.94 | \$12.58 | \$8.05 | \$6.50 |
| 1998 | 108 | 35 | 10 | 63 | \$1,140.60 | \$553.38 | \$40.25 | \$546.97 | \$10.56 | \$15.81 | \$4.03 | \$8.68 |
| 1999 | 106 | 26 | 7 | 73 | \$1,620.45 | \$999.23 | \$28.11 | \$593.11 | \$15.29 | \$38.43 | \$4.02 | \$8.12 |
| 2000 | 140 | 42 | 9 | 89 | \$1,718.22 | \$826.54 | \$57.20 | \$834.48 | \$12.27 | \$19.68 | \$6.36 | \$9.38 |
| 2001 | 127 | 41 | 5 | 81 | \$2,614.83 | \$992.78 | \$19.41 | \$1,602.64 | \$20.59 | \$24.21 | \$3.88 | \$19.79 |
| 2002 | 133 | 40 | 3 | 90 | \$2,628.57 | \$1,866.18 | \$17.80 | \$744.59 | \$19.76 | \$46.65 | \$5.93 | \$8.27 |
| Total | 1,276 | 453 | 90 | 733 | \$15,253.30 | \$8,234.50 | \$585.65 | \$6,433.14 | \$11.95 | \$18.18 | \$6.51 | \$8.78 |
| Percentage Total | | 35.34% | 7.02% | 57.18% | 100% | 53.91% | 3.83% | 42.12% | | | | |
| Average Pre-PSLRA | | 62.00 | 10.00 | 62.00 | \$1,108.63 | \$615.96 | \$86.60 | \$406.07 | | \$9.93 | \$8.66 | \$6.55 |
| Average PSLRA-SLUSA | | 42.00 | 12.86 | 72.86 | \$1,172.05 | \$591.02 | \$83.59 | \$497.45 | | \$14.07 | \$6.50 | \$6.83 |
| Average Post-SLUSA | | 36.21 | 6.43 | 80.79 | \$1,969.85 | \$1,073.05 | \$28.03 | \$868.76 | | \$29.63 | \$4.36 | \$10.75 |
| Average Post-PSLRA | | 38.14 | 8.57 | 78.14 | \$1,703.91 | \$912.37 | \$46.55 | \$744.99 | | \$23.92 | \$5.43 | \$9.53 |

TABLE 9: SUMMARY SAMPLE STATISTICS FOR SETTLEMENTS, BY INDUSTRY SECTOR

We employ an industry classification based on Breeden et al's (1989) maximum correlation portfolios and report the number of settlements, total settlement amounts per year as well as average settlement amounts per case for each industry sector. Because Breeden et al's industry classification is not exhaustive, we provide summary statistics for those firms that do not fall within Breeden et al's industry groups in the last row of this table, under the "Other" category. Averages are computed in the same manner as stated before.

| Industry sector | SIC Codes | Panel A: Number of Settlements | | | | | | Panel B: Settlement Amounts (in \$ Million) | | | | | |
|-----------------------|--|--------------------------------|--------------|--------------|--------------|---------------|--------------------|---|---------------|---------------|----------------|----------------|------------|
| | | Total | Average | | | Total | Whole sample | Average Settlement Amount per Case | | | | | |
| | | | Pre-PSLRA | PSLRA | Post-SLUSA | | | Pre-PSLRA | PSLRA | Post-SLUSA | Pre-PSLRA | PSLRA | Post-PSLRA |
| Petroleum | 13, 29 | 21 | 4.00 | 1.29 | 1.29 | 1.29 | 281.96 | \$13.43 | \$13.74 | \$10.45 | \$14.22 | \$12.97 | |
| Finance & Real Estate | 60, 61, 62, 63, 64, 65, 66, 67, 68, 69 | 210 | 30.33 | 19.71 | 15.64 | 17.00 | \$2,857.27 | \$13.61 | \$8.04 | \$12.96 | \$20.96 | \$17.86 | |
| Consumer Durables | 25, 30, 36, 37, 50, 55, 57 | 184 | 14.33 | 18.43 | 21.00 | 20.14 | \$1,992.88 | \$10.83 | \$7.07 | \$7.16 | \$14.09 | \$11.98 | |
| Basic Industries | 10, 12, 14, 24, 26, 28, 33 | 93 | 14.33 | 9.86 | 5.79 | 7.14 | \$756.51 | \$8.13 | \$8.75 | \$8.26 | \$7.04 | \$7.61 | |
| Food & Tobacco | 01, 20, 21, 54 | 18 | 0.00 | 3.00 | 2.36 | 2.57 | \$374.64 | \$20.81 | \$0.00 | \$9.72 | \$27.84 | \$20.82 | |
| Construction | 15, 16, 17, 32, 52 | 24 | 4.33 | 1.71 | 1.50 | 1.57 | \$232.15 | \$9.67 | \$8.47 | \$25.81 | \$2.74 | \$11.11 | |
| Capital Goods | 34, 35, 38 | 151 | 17.67 | 18.00 | 120 | 14.00 | \$1,006.65 | \$6.67 | \$6.83 | \$7.20 | \$6.11 | \$6.58 | |
| Transportation | 40, 41, 42, 44, 45, 47 | 15 | 1.33 | 0.86 | 1.93 | 1.57 | \$144.73 | \$9.65 | \$7.07 | \$1.43 | \$12.62 | \$10.61 | |
| Utilities | 46, 48, 49 | 69 | 7.00 | 5.57 | 7.50 | 6.86 | \$1,688.85 | \$24.48 | \$13.71 | \$9.63 | \$36.45 | \$29.17 | |
| Textiles & Trade | 22, 23, 31, 51, 53, 56, 59 | 100 | 9.00 | 12.86 | 9.21 | 10.43 | \$1,087.16 | \$10.87 | \$4.39 | \$6.00 | \$18.35 | \$13.27 | |
| Services | 72, 73, 75, 80, 82, 89 | 272 | 19.00 | 22.71 | 34.71 | 30.71 | \$3,771.13 | \$13.86 | \$9.31 | \$9.82 | \$16.79 | \$15.08 | |
| Leisure | 27, 58, 70, 78, 79 | 66 | 7.67 | 8.14 | 5.14 | 6.14 | \$407.86 | \$6.18 | \$5.94 | \$3.97 | \$8.16 | \$6.31 | |
| Other | All Other SIC Codes | 59 | 5.33 | 6.43 | 6.00 | 6.14 | \$671.50 | \$11.38 | \$11.05 | \$15.82 | \$9.20 | \$11.51 | |
| Total | | 1,282 | 134.3 | 128.6 | 124.1 | 125.56 | \$15,273.30 | \$11.92 | \$8.26 | \$9.13 | \$15.90 | \$13.59 | |

TABLE 10: SUMMARY SAMPLE STATISTICS FOR SETTLEMENTS, BY ALLEGATION TYPE

We categorize settlements across different types of allegations following Bajaj et al. (2000). The following table provides summary statistics for cases that were settled between January 1993 and December 2002. We first provide a breakdown by year and by type of allegation. Due to their special nature, we reported IPO related lawsuits as a separate type of allegation. The settlement data used in this table was obtained from the *Securities Class Action Alert*. We only collected information on allegations for 455 settlements for which we could identify the exact settlement date on Lexis/Nexis. The remaining 827 settlements are excluded. Please note that our sorting criteria are not exclusive, i.e. several firms in our sample were accused of more than one violation of the securities laws. The total number of settlement reported in this table (517) thus exceeds the total number of settlements in our sample (455).

| Type of Allegation | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total | Average | | | |
|--|------|------|------|------|------|------|------|------|------|------|-------|--------------|-----------|------------------|-------|
| | | | | | | | | | | | | Whole sample | Pre-PSLRA | Post-PSLRA SLUSA | |
| ALLEG02 IPO Cases (Laddering and non-Laddering) | 6 | 7 | 13 | 13 | 4 | 6 | 6 | 8 | 7 | 2 | 72 | 7.2 | 8.74 | 7.94 | 5.83 |
| ALLEG03 Misleading or False Statements (General) | 7 | 4 | 1 | 1 | 4 | 7 | 4 | 9 | 5 | 8 | 50 | 5 | 4.03 | 3.34 | 6.47 |
| ALLEG04 Failure to Disclose Material Adverse Information and Known Risks about Firm's Future (Including Overoptimistic False Forecasts) | 6 | 4 | 0 | 1 | 4 | 6 | 4 | 9 | 3 | 6 | 43 | 4.3 | 3.36 | 2.93 | 5.61 |
| ALLEG05 Failure to Disclose Existing Business Problems in the Firm's Past | 19 | 24 | 30 | 17 | 19 | 13 | 22 | 21 | 13 | 17 | 195 | 19.5 | 24.54 | 17.14 | 17.48 |
| ALLEG06 Artificially Inflated Financial Results (including Revenue Restatements) | 3 | 10 | 2 | 3 | 6 | 2 | 2 | 7 | 10 | 6 | 51 | 5.1 | 5.04 | 3.76 | 5.83 |
| ALLEG07 Improper Accounting Practices and Violations of GAAP | 3 | 10 | 2 | 3 | 6 | 2 | 2 | 8 | 12 | 6 | 54 | 5.4 | 5.04 | 3.76 | 6.47 |
| ALLEG09 Insider Trading | 1 | 1 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 4 | 13 | 1.3 | 1.01 | 1.25 | 1.51 |
| ALLEG11 Other or Unknown | 2 | 7 | 5 | 5 | 5 | 5 | 6 | 2 | 1 | 1 | 39 | 3.9 | 4.71 | 5.44 | 2.59 |
| Total | 47 | 67 | 54 | 44 | 48 | 43 | 46 | 66 | 52 | 50 | 517 | 51.7 | | | |

TABLE 11: TESTS FOR EQUALITY OF MEAN AND MEDIAN LITIGATION ACTIVITY BETWEEN TECH AND NON-TECH FIRMS

We divide our sample into a pre- and post-1998 SLUSA subperiod. For each subperiod, we record the number of lawsuit filings against tech and non-tech companies. In the first row of each table, we provide the total number of lawsuits. In the second and third row, we calculate the mean and median number of lawsuits per month. (Note that our pre-SLUSA period comprises a 28 months and our post-SLUSA period extends over 56 months). In the last two columns, we provide p-values for a two-sided t-test for equality of means and a Mann-Whitney test for the equality of medians between the two subsamples. We follow Cliff and Denis (2003) who classify firms with the following SIC codes as high-tech firms: 2833, 2834, 2835, 2836, 3571, 3572, 3575, 3577, 3578, 3661, 3663, 3669, 3674, 3812, 3823, 3825, 3826, 3827, 3829, 3841, 3845, 4812, 4813, 4899, 7370, 7371, 7372, 7373, 7374, 7375, 7377, 7378, 7379.

| Subsample 1 | N mean median | Subsample 2 | N mean median | Tests for Equality of Means and Medians Across Groups | |
|---|-----------------------------|---------------------------------|--------------------------------|---|------------|
| | | | | p-value | MW p-value |
| Panel A. Litigation Activity Pre-1998 SLUSA (Tech vs. Non-Tech Firms) | | | | | |
| Lawsuits against tech firms | 125 4.3/month 3/month | Lawsuits against non-tech firms | 195 6.7/month 7/month | 0.0126 | 0.0065 |
| Panel B. Litigation Activity Post-1998 SLUSA (Tech vs. Non-Tech Firms) | | | | | |
| Lawsuits against tech firms | 547 9.8/month 7/month | Lawsuits against non-tech firms | 611 10.9/month 9.5/month | 0.5231 | 0.0027 |

TABLE 12: TESTS FOR EQUALITY OF MEAN AND MEDIAN LITIGATION DATA BY EXCHANGE

Out of the 1,478 lawsuit filings in our final sample, we exclude 121 lawsuit filings that were either traded over-the-counter, or had no exchange information on CRSP. Of the remaining 1,357 lawsuits, 910 were filed against NASDAQ-traded firms, 416 against NYSE-traded firms and 31 against AMEX-traded firms. In addition to these totals, we report mean and median activity per month for each exchange. (Note that our sample extends over a period of 84 months). Panel A provides a comparison between monthly litigation activity on the NASDAQ and NYSE. Panel B compares the NASDAQ and AMEX. In the last two columns, we provide p-values for a two-sided t-test for equality of means and a Mann-Whitney test for the equality of medians between the two subsamples.

| Subsample 1 | N mean median | Subsample 2 | N mean median | Tests for Equality of Means and Medians Across Groups | |
|---|------------------------------------|---|------------------------------------|---|------------|
| | | | | p-value | MW p-value |
| Panel A. Litigation Activity NASDAQ vs. NYSE | | | | | |
| Number of lawsuits against firms traded on the NASDAQ | 910 lawsuits | Number of lawsuits against firms traded on the NYSE | 416 lawsuits | n/a | n/a |
| Number of lawsuits per month against firms traded on the NASDAQ | 84 months 10.8/month 8/month | Number of lawsuits per month against firms traded on the NYSE | 84 months 5.0/month 4/month | 0.0001 | 0.0000 |
| Panel B. Litigation Activity NASDAQ vs. AMEX | | | | | |
| Number of lawsuits against firms traded on the NASDAQ | 910 lawsuits | Number of lawsuits against firms traded on the AMEX | 31 lawsuits | n/a | n/a |
| Number of lawsuits per month against firms traded on the NASDAQ | 84 months 10.8/month 8/month | Number of lawsuits per month against firms traded on the AMEX | 84 months 0.37/month 0/month | 0.0000 | 0.0000 |
| Panel C. Litigation Activity NYSE vs. AMEX | | | | | |
| Number of lawsuits against firms traded on the NYSE | 416 lawsuits | Number of lawsuits against firms traded on the AMEX | 31 lawsuits | n/a | n/a |
| Number of lawsuits per month against firms traded on the NYSE | 84 months 5.0/month 4/month | Number of lawsuits per month against firms traded on the AMEX | 84 months 0.37/month 0/month | 0.0000 | 0.0000 |

TABLE 13: ABNORMAL PERFORMANCE OF SUED FIRMS AROUND LAWSUIT FILINGS

We report the results of an event study over different event windows before and after a lawsuit announcement. In Panel A, we report results for various timeframes prior to the announcement. In Panel B, we report results for event windows around and after a lawsuit announcement. Our sample consists of 1,478 lawsuits filed between January 1996 and December 2002. We exclude 315 firms because they were already delisted from CRSP on the date the lawsuit was announced or because we were missing important information about these firms which is relevant for a later regression of abnormal returns on various factors. Our resulting sample for the event study thus consists of 1163 firms. In column 2 of the table, we calculate the cumulative abnormal returns (CARs) for the respective event windows; in column 3, we listed p-values for a test of the equality of means; in column 4 and 5, we report average and median cumulative abnormal returns for each event window. Column 6 reports p-values for Wilcoxon ranked sign tests, and column 7 provides the number of firms used in each event window.

| Number of Days Before/After Announcement | Cumulative Abnormal Returns | Mean Test (p-value) | Average Cumulative Abnormal Returns | Median Cumulative Abnormal Returns | Wilcoxon Ranked Sign Test (p-value) | Number of firms |
|---|-----------------------------|---------------------|-------------------------------------|------------------------------------|-------------------------------------|-----------------|
| Cumulative Abnormal Returns Around Lawsuit Announcements | | | | | | |
| Panel A: CARs Before Lawsuit Announcements | | | | | | |
| -250 to -1 | -45.70% | 0.0000 | -0.18% | -50.04% | 0.0000 | 1,162 |
| -125 to -1 | -35.08% | 0.0000 | -0.28% | -34.77% | 0.0000 | 1,162 |
| -60 to -1 | -24.03% | 0.0000 | -0.40% | -23.09% | 0.0000 | 1,162 |
| -20 to -1 | -15.20% | 0.0000 | -0.76% | -9.72% | 0.0000 | 1,162 |
| -10 to -1 | -9.80% | 0.0000 | -0.98% | -4.46% | 0.0000 | 1,162 |
| -5 to -1 | -6.34% | 0.0000 | -1.27% | -2.68% | 0.0000 | 1,162 |
| -3 to -1 | -3.91% | 0.0000 | -1.30% | -1.37% | 0.0000 | 1,162 |
| -2 to -1 | -2.76% | 0.0000 | -1.38% | -0.89% | 0.0000 | 1,162 |
| Panel B: CARs Around and After Lawsuit Announcements | | | | | | |
| -1 to 0 | -2.87% | 0.0000 | -1.44% | -0.94% | 0.0000 | 1,163 |
| -1 to 1 | -4.65% | 0.0000 | -1.55% | -2.08% | 0.0000 | 1,162 |
| 0 to 1 | -3.00% | 0.0000 | -1.50% | -1.64% | 0.0000 | 1,162 |
| 0 to 2 | -3.59% | 0.0000 | -1.20% | -1.79% | 0.0000 | 1,161 |
| 0 to 3 | -3.76% | 0.0000 | -0.94% | -2.15% | 0.0000 | 1,160 |
| 0 to 5 | -3.60% | 0.0000 | -0.60% | -2.32% | 0.0000 | 1,157 |
| 0 to 10 | -3.55% | 0.0000 | -0.32% | -2.60% | 0.0000 | 1,148 |
| 0 to 20 | -3.58% | 0.0001 | -0.17% | -1.89% | 0.0004 | 1,134 |
| 0 to 60 | -4.84% | 0.0006 | -0.08% | -2.09% | 0.0001 | 1,071 |
| 0 to 125 | -4.50% | 0.0143 | -0.04% | -1.31% | 0.0203 | 973 |
| 0 to 250 | 0.09% | 0.9723 | 0.00% | 0.74% | 0.6624 | 808 |
| 0 to 500 | 23.69% | 0.0000 | 0.05% | 21.07% | 0.0001 | 412 |

TABLE 14: ABNORMAL PERFORMANCE OF SUED FIRMS AROUND SETTLEMENT ANNOUNCEMENTS

We report the results of an event study over different event windows before and after a settlement announcement. In Panel A, we report results for various timeframes prior to the announcement. In Panel B, we report results for event windows around and after a settlement announcement. Our sample consists of 1,332 settlements that were publicly announced between January 1993 and December 2002. We accessed Lexis/Nexis and identified the exact announcement dates for 357 settlements. All other settlements are excluded because we were unable to identify the exact day their settlement was announcement, because they were already delisted from CRSP or because we were missing important information crucial for our subsequent regression analysis of the CARs from this table or various explanatory factors. In column 2 of the table, we calculate the cumulative abnormal returns (CARs) for the respective event windows; in column 3, we listed p-values for a test of the equality of means; in column 4 and 5, we report average and median cumulative abnormal returns for each event window. Column 6 reports p-values for Wilcoxon ranked sign tests, and column 7 provides the number of firms used in each event window.

| Number of Days Before/After Announcement | Cumulative Abnormal Returns | Mean Test (p-value) | Average Cumulative Abnormal Returns | Median Cumulative Abnormal Returns | Wilcoxon Ranked Sign Test (p-value) | Number of firms |
|--|-----------------------------|---------------------|-------------------------------------|------------------------------------|-------------------------------------|-----------------|
| Cumulative Abnormal Returns Around Settlement Announcements | | | | | | |
| Panel A: CARs Before Lawsuit Announcements | | | | | | |
| -250 to -1 | -11.63% | 0.0028 | -0.05% | -14.94% | 0.0000 | 353 |
| -125 to -1 | 0.54% | 0.8412 | 0.00% | -3.33% | 0.3740 | 356 |
| -60 to -1 | 4.39% | 0.0219 | 0.07% | -0.64% | 0.3093 | 354 |
| -20 to -1 | 2.20% | 0.0608 | 0.11% | -0.58% | 0.5831 | 357 |
| -10 to -1 | 1.85% | 0.0424 | 0.18% | -0.19% | 0.4375 | 357 |
| -5 to -1 | 1.34% | 0.0788 | 0.27% | -0.48% | 0.8737 | 356 |
| -3 to -1 | 1.06% | 0.1077 | 0.35% | -0.37% | 0.5600 | 356 |
| -2 to -1 | 1.48% | 0.0186 | 0.74% | -0.12% | 0.7448 | 356 |
| Panel B: CARs Around and After Settlement Announcements | | | | | | |
| -1 to 0 | 2.51% | 0.0026 | 1.26% | 0.43% | 0.0078 | 356 |
| -1 to 1 | 3.94% | 0.0029 | 1.31% | 0.58% | 0.0222 | 355 |
| 0 to 1 | 3.25% | 0.0029 | 1.62% | 0.50% | 0.0116 | 355 |
| 0 to 2 | 2.68% | 0.0143 | 0.89% | 0.21% | 0.1790 | 356 |
| 0 to 3 | 2.27% | 0.0410 | 0.57% | -0.15% | 0.8658 | 356 |
| 0 to 5 | 1.92% | 0.0829 | 0.32% | -0.10% | 0.8279 | 356 |
| 0 to 10 | 1.78% | 0.1693 | 0.16% | -0.72% | 0.7212 | 355 |
| 0 to 20 | 0.57% | 0.6884 | 0.03% | -1.68% | 0.0851 | 356 |
| 0 to 60 | 1.34% | 0.5589 | 0.02% | -2.25% | 0.3736 | 335 |
| 0 to 125 | 0.72% | 0.8166 | 0.01% | -4.44% | 0.3766 | 320 |
| 0 to 250 | 0.38% | 0.9283 | 0.00% | -3.23% | 0.3105 | 282 |
| 0 to 500 | 1.91% | 0.7677 | 0.00% | -8.15% | 0.6368 | 233 |

TABLE 15: OLS REGRESSION ANALYSIS OF CUMULATIVE ABNORMAL RETURNS FOR LAWSUITS

We examine whether investors distinguish between different types of lawsuits based on the underlying characteristics of the defendant firms and the alleged security law violations. We isolate various factors that describe a firm and the allegations against it and examine whether these factors significantly influence the short-term and long-term cumulative abnormal returns a defendant firm's stock experiences following a lawsuit announcement. We consider dummy variables that identify the alleged security law violations, the firm's industry sector and its exchange listing. In addition, we include a dummy variable that identifies whether or not a firm was viewed as lead-defendant in a case and whether or not the lawsuit was filed after passage of the 1998 SLUSA. We control for firm size and possible information leakage prior to the lawsuit by including the 5-day pre-lawsuit announcement CAR in our regression. For each regression model, we report parameter estimates, the number of observations and an adjusted R². (T-statistics are reported in parentheses.)

$$CAR_{i,(-1,t)} = \beta_0 + \sum_{j=1}^{10} \beta_{1,j} ALLEG_{i,j} + \beta_2 LEAK_i + \beta_3 \ln(SIZE_i) + \beta_4 LEADDEF_i + \sum_{h=1}^3 \beta_{5,h} LAWSUITEXCHANGE_{i,h} + \sum_{n=1}^{12} \beta_{6,n} LAWSUITINDUSTRY_{i,n} + \beta_7 LAWSUITPOST98_i + \varepsilon_i$$

| Variable | CAR (-1,1) | CAR (-1,5) | CAR (-1,20) | CAR (-1,125) | CAR (-1,250) |
|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) |
| Intercept | 0.08422 (1.6218) | 0.01606 (0.243) | -0.00273 (-0.0263) | 0.21308 (1.0000) | 0.43628 (1.3212) |
| ALLEG01 | 0.06384 (3.4665)*** | 0.07191 (3.0677)*** | 0.06218 (1.6894)* | 0.10332 (1.440) | -0.07968 (-0.7907) |
| ALLEG02 | -0.01245 (-0.4679) | -0.00857 (-0.25) | 0.00783 (0.1457) | 0.08111 (0.7333) | 0.08881 (0.5834) |
| ALLEG03 | 0.01360 (1.0405) | 0.00356 (0.2139) | 0.01561 (0.5965) | -0.00297 (-0.0565) | -0.00522 (-0.0699) |
| ALLEG04 | -0.00865 (-0.5776) | -0.00972 (-0.5103) | -0.00344 (-0.1152) | 0.04343 (0.7355) | -0.02717 (-0.3212) |
| ALLEG05 | 0.00142 (0.0978) | -0.01271 (-0.6882) | -0.01736 (-0.5971) | -0.04853 (-0.8239) | -0.02370 (-0.2873) |
| ALLEG06 | -0.00844 (-0.5297) | -0.03828 (-1.8867)* | -0.00898 (-0.2819) | -0.03161 (-0.5026) | -0.05354 (-0.6017) |
| ALLEG07 | -0.02043 (-1.3874) | -0.00938 (-0.5002) | -0.03684 (-1.2543) | -0.07154 (-1.202) | -0.03123 (-0.3604) |
| ALLEG08 | 0.00652 (0.1893) | -0.02606 (-0.5956) | -0.01779 (-0.2617) | -0.05291 (-0.3946) | -0.09964 (-0.4740) |
| ALLEG09 | -0.00763 (-0.4818) | 0.00595 (0.2954) | -0.02664 (-0.8494) | 0.05825 (0.9599) | 0.05347 (0.6192) |
| ALLEG10 | 0.07344 (0.8783) | 0.13136 (1.0843) | 0.07912 (0.3471) | -0.02583 (-0.0627) | 0.10026 (0.1345) |
| IND01 | -0.07753 (-1.2495) | -0.06395 (-0.8104) | -0.16178 (-1.3211) | -0.61731 (-2.2569)** | -0.95619 (-2.1545)** |
| IND02 | -0.03517 (-1.2186) | -0.07112 (-1.9376)* | -0.06125 (-1.0711) | 0.01478 (0.1307) | 0.00992 (0.0621) |
| IND03 | -0.00100 (-0.0391) | -0.02833 (-0.8703) | -0.02076 (-0.4065) | -0.00824 (-0.0834) | -0.00558 (-0.0412) |
| IND04 | -0.00574 (-0.1905) | -0.02783 (-0.7223) | -0.02703 (-0.4501) | -0.04344 (-0.3772) | 0.15026 (0.9361) |
| IND05 | -0.05639 (-1.1363) | -0.13744 (-2.1773)** | -0.13651 (-1.3921) | -0.02052 (-0.1104) | 0.26911 (1.0101) |
| IND06 | 0.16115 (2.0828)** | 0.05092 (0.5177) | 0.18837 (1.234) | 0.14558 (0.4749) | 0.05945 (0.1497) |
| IND07 | -0.02736 (-1.0087) | -0.08747 (-2.5359)** | -0.05090 (-0.9446) | 0.00210 (0.0203) | 0.01662 (0.1171) |

| | | | | | |
|-------------------------------|--------------------------|--------------------------|------------------------|-------------------------|--------------------------|
| IND08 | 0.00175 (0.0325) | -0.04188 (-0.6111) | 0.07899 (0.6832) | 0.03731 (0.1686) | -0.18786 (-0.6543) |
| IND09 | -0.00461 (-0.1659) | -0.04007 (-1.1326) | -0.03926 (-0.7061) | -0.13910 (-1.2419) | -0.00452 (-0.0275) |
| IND10 | -0.05694 (-1.8608)* | -0.11344 (-2.9158)*** | -0.12868 (-2.124)** | -0.05742 (-0.4724) | -0.05929 (-0.351) |
| IND11 | -0.02255 (-0.9268) | -0.04949 (-1.5997) | -0.02204 (-0.4556) | 0.00911 (0.0974) | -0.07689 (-0.5997) |
| IND12 | -0.00927 (-0.2582) | -0.05362 (-1.1746) | -0.07867 (-1.087) | -0.05817 (-0.4209) | -0.21189 (-1.1096) |
| LEADDEF | -0.05746 (-2.1263)** | -0.06568 (-1.9113)* | -0.08135 (-1.5069) | -0.05595 (-0.5463) | -0.00628 (-0.0448) |
| LAWSUITNYSE | -0.03494 (-1.4031) | 0.00684 (0.2151) | 0.09637 (1.89)* | 0.12317 (1.0896) | 0.42383 (2.1745)** |
| LAWSUITAMEX | -0.17767 (-3.9124)*** | -0.14712 (-2.4985)** | -0.02229 (-0.2362) | 0.03065 (0.1607) | -0.01332 (-0.0451) |
| LAWSUITNASDAQ | -0.06911 (-2.8844)*** | -0.01594 (-0.5214) | 0.05940 (1.2072) | 0.10627 (0.9681) | 0.41372 (2.1603)** |
| LEAK | 0.00831 (0.1955) | 0.09208 (1.6977)* | 0.04002 (0.4518) | 0.07286 (0.4229) | 0.14754 (0.6407) |
| LN_SIZE | 0.00136 (0.5276) | 0.00694 (2.1111)** | -0.00079 (-0.1531) | -0.03532 (-3.394)*** | -0.07682 (-5.0734)*** |
| POST98 | -0.03617 (-2.8568)*** | -0.04768 (-2.9559)*** | 0.00545 (0.2158) | 0.16497 (3.4206)*** | 0.25735 (3.8507)*** |
| Number of Observations | 1,156 | 1,151 | 1,127 | 962 | 797 |
| Adjusted R² | 0.048 | 0.044 | 0.009 | 0.038 | 0.051 |

*** Significant at 1 percent level

** Significant at 5 percent level

* Significant at 10 percent level

TABLE 16: OLS REGRESSION ANALYSIS OF CUMULATIVE ABNORMAL RETURNS FOR LAWSUITS

We perform a regression analysis of the cumulative abnormal returns (CARs) of defendant firms following a lawsuit announcement. Our methodology follows that described in Table 18. In order to reduce the number of explanatory factors, however, we employ the industry classification of Cliff and Denis (2003) in tech and non-tech firms. Cliff and Denis (2003) classify firms in the following SIC codes as tech firms: 2833, 2834, 2835, 2836, 3571, 3572, 3575, 3577, 3578, 3661, 3663, 3669, 3674, 3812, 3823, 3825, 3826, 3827, 3829, 3841, 3845, 4812, 4813, 4899, 7370, 7371, 7372, 7373, 7374, 7375, 7377, 7378, 7379. All other factors are the same ones used in Table 18. For each regression model, we report parameter estimates, the number of observations and an adjusted R². (T-statistics are reported in parentheses.)

$$CAR_{i,(-1,t)} = \beta_0 + \sum_{j=1}^{10} \beta_{1,j} ALLEG_{i,j} + \beta_2 LEAK_i + \beta_3 \ln(SIZE_i) + \beta_4 LEADDEF_i + \sum_{h=1}^3 \beta_{5,h} LAWSUITEXCHANGE_{i,h} + \beta_6 TECH_i + \beta_7 LAWSUITPOST98_i + \varepsilon_i$$

| | CAR (-1,1) | CAR (-1,5) | CAR (-1,20) | CAR (-1,125) | CAR (-1,250) |
|-------------------------|--------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
| Variable | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) |
| Intercept | 0.07128 (1.4993) | -0.04335 (-0.7168) | -0.04018 (-0.4239) | 0.22168 (1.1163) | 0.39333 (1.26) |
| ALLEG01 | 0.06296 (3.4659)*** | 0.06929 (2.9983)*** | 0.06086 (1.684)* | 0.09589 (1.3638) | -0.14014 (-1.4216) |
| ALLEG02 | -0.00971 (-0.3664) | -0.00558 (-0.1636) | 0.01763 (0.3311) | 0.08543 (0.7826) | 0.06016 (0.4004) |
| ALLEG03 | 0.01448 (1.1101) | 0.00477 (0.2873) | 0.01897 (0.7295) | -0.00456 (-0.0877) | -0.01535 (-0.2079) |
| ALLEG04 | -0.01010 (-0.6769) | -0.01009 (-0.5322) | -0.00558 (-0.1886) | 0.05289 (0.903) | -0.01175 (-0.1399) |
| ALLEG05 | 0.00757 (0.5286) | -0.00683 (-0.3752) | -0.00709 (-0.2487) | -0.04298 (-0.7461) | -0.04640 (-0.5775) |
| ALLEG06 | -0.00794 (-0.5002) | -0.04184 (-2.0703)** | -0.00937 (-0.2965) | -0.02088 (-0.3349) | -0.05969 (-0.6765) |
| ALLEG07 | -0.02120 (-1.4447) | -0.00904 (-0.4839) | -0.03471 (-1.1912) | -0.07357 (-1.2452) | -0.03509 (-0.4087) |
| ALLEG08 | 0.00496 (0.1452) | -0.03077 (-0.7092) | -0.01953 (-0.2911) | -0.05356 (-0.4051) | -0.10689 (-0.5135) |
| ALLEG09 | -0.01065 (-0.674) | 0.00138 (0.0684) | -0.03462 (-1.1095) | 0.05239 (0.867) | 0.02681 (0.3116) |
| ALLEG10 | 0.06585 (0.7947) | 0.12925 (1.0736) | 0.06894 (0.3045) | -0.03152 (-0.0771) | 0.21304 (0.2886) |
| TECH | 0.01313 (1.2846) | 0.03181 (2.4424)** | 0.05914 (2.9157)*** | 0.06914 (1.7558)* | 0.09467 (1.7206)* |
| LEADDEF | -0.06263 (-2.3557)** | -0.06296 (-1.8627)* | -0.08474 (-1.6019) | -0.07195 (-0.7133) | -0.04522 (-0.3272) |
| LAWSUITNYSE | -0.03661 (-1.4744) | 0.00632 (0.1994) | 0.09888 (1.9526)* | 0.13371 (1.1967) | 0.46904 (2.4389)** |
| LAWSUITAMEX | -0.18400 (-4.1134)*** | -0.15550 (-2.6786)*** | -0.03728 (-0.4025) | 0.01765 (0.0942) | 0.08209 (0.2818) |
| LAWSUITNASDAQ | -0.07257 (-3.0421)*** | -0.01899 (-0.6244) | 0.05466 (1.1196) | 0.10913 (0.9998) | 0.42761 (2.2456)** |
| LEAK | 0.01392 (0.328) | 0.09558 (1.7672)* | 0.04381 (0.4975) | 0.08751 (0.5104) | 0.18596 (0.8112) |
| LN_SIZE | 0.00114 (0.4398) | 0.00656 (1.9918)** | -0.00241 (-0.4663) | -0.03901 (-3.7715)*** | -0.07712 (-5.123)*** |
| POST98 | -0.03783 (-3.0746)*** | -0.05079 (-3.2421)*** | 0.00150 (0.0611) | 0.16246 (3.4616)*** | 0.27002 (4.1423)*** |
| Number of Observations | 1,156 | 1,151 | 1,127 | 962 | 797 |
| Adjusted R ² | 0.044 | 0.041 | 0.014 | 0.042 | 0.052 |

*** Significant at 1 percent level

** Significant at 5 percent level

* Significant at 10 percent level

TABLE 17: OLS REGRESSION ANALYSIS OF CUMULATIVE ABNORMAL RETURNS FOR SETTLEMENTS

We examine whether investors distinguish between different types of lawsuits settled based on the underlying characteristics of the defendant firms and the alleged security law violations. We isolate various factors that describe a firm and the allegations against it and examine whether these factors significantly influence the short-term and long-term cumulative abnormal returns a defendant firm's stock experiences following a settlement announcement. We consider dummy variables that identify the alleged security law violations (we had to exclude ALLEG08 for lack of settlements under this category), the firm's industry sector (we limit our analysis to 8 industry sectors because of the very small number of settlements under the excluded categories) and its exchange listing. In addition, we include a dummy variable that identifies whether or not a firm was sued in a state court, whether or not the firm was settled between the passage of the 1995 PSLRA and the passage of the 1998 SLUSA and whether or not the firm was settled after passage of the 1998 SLUSA. We control for firm size and for the percentage change in the defendant stock price during the class period. For each regression model, we report parameter estimates, the number of observations and an adjusted R². (T-statistics are reported in parentheses.)

$$CAR_{i,(-1,t)} = \beta_0 + \beta_1 \ln(SIZE_i) + \beta_2 SETTLESTATEJURIS_i + \beta_3 SETBETWEENACTS_i + \beta_4 SETPOST98ACT_i + \sum_{j=1}^3 \beta_{5,j} SETEXCHANGE_{i,j} + \beta_6 PRICEDROP_i + \sum_{m=1}^7 \beta_{7,m} SETINDUSTRY_{i,m} + \sum_{n=1}^7 \beta_{8,n} ALLEG_{i,n} + \varepsilon_i$$

| | CAR (-1,1) | CAR (-1,5) | CAR (-1,20) | CAR (-1,125) | CAR (-1,250) |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Variable | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) | Coefficient (t-stat) |
| Intercept | 0.3025 (2.6836)*** | 0.3662 (3.1054)*** | 0.3517 (2.3187)** | 0.6957 (2.2817)** | 0.7179 (1.6376) |
| LN_SIZE | -0.0221 (-2.8191)*** | -0.0216 (-2.5785)*** | -0.0299 (-2.7792)*** | -0.0639 (-2.8918)*** | -0.0958 (-3.0186)*** |
| SETTLESTATEJURIS | -0.0861 (-1.6025) | -0.0923 (-1.6075) | -0.1030 (-1.3947) | -0.2854 (-2.0205)** | -0.2861 (-1.468) |
| SETBETWEENACTS | -0.0230 (-0.6129) | 0.0047 (0.1174) | 0.0101 (0.1946) | -0.0761 (-0.7782) | 0.0651 (0.4771) |
| SETPOST98ACT | 0.0138 (0.3612) | 0.0101 (0.2462) | 0.0670 (1.2721) | 0.1147 (1.162) | 0.1928 (1.3937) |
| SETNYSE | 0.0851 (1.3321) | -0.0003 (-0.0037) | 0.0391 (0.4554) | 0.1952 (1.2178) | 0.4101 (1.8332)* |
| SETNASDAQ | 0.0101 (0.1771) | -0.0663 (-1.12) | -0.0298 (-0.3916) | 0.0703 (0.4994) | 0.2861 (1.4968) |
| PRICEDROP | -0.0267 (-1.2845) | -0.0271 (-1.2179) | -0.0210 (-0.7337) | -0.0285 (-0.5153) | 0.0159 (0.2117) |
| IND02 | 0.0779 (1.2959) | 0.0773 (1.2129) | 0.1547 (1.8882)* | -0.0022 (-0.0137) | 0.1234 (0.5456) |
| IND03 | 0.0468 (0.9083) | 0.0164 (0.3015) | 0.0109 (0.1553) | -0.1067 (-0.7854) | -0.0064 (-0.0346) |
| IND04 | -0.0324 (-0.5174) | -0.0866 (-1.3084) | -0.0858 (-1.0081) | -0.1629 (-1.0153) | 0.0962 (0.441) |
| IND07 | -0.0049 (-0.0927) | -0.0481 (-0.8704) | -0.0004 (-0.0051) | -0.0614 (-0.4467) | -0.0274 (-0.1437) |
| IND09 | -0.0943 (-1.2585) | -0.0941 (-1.1897) | -0.0204 (-0.2006) | -0.0730 (-0.3846) | 0.3657 (1.3698) |
| IND10 | -0.0265 (-0.4122) | -0.0457 (-0.671) | -0.0014 (-0.0159) | 0.0309 (0.1832) | -0.1539 (-0.6552) |
| IND11 | -0.0079 (-0.1601) | -0.0061 (-0.1175) | 0.0380 (0.5698) | 0.0330 (0.256) | 0.1406 (0.7919) |
| ALLEG01 & 02 | -0.0345 (-0.773) | -0.0475 (-0.9956) | -0.0582 (-0.948) | -0.0445 (-0.3836) | -0.0245 (-0.155) |
| ALLEG03 | 0.0459 (0.3072) | 0.0604 (0.3785) | 0.1358 (0.6618) | -0.0784 (-0.2078) | -0.3704 (-0.5373) |
| ALLEG04 | -0.1125 (-0.7518) | -0.0985 (-0.6164) | -0.1060 (-0.5155) | 0.0281 (0.0741) | 0.5127 (0.7389) |

| | | | | | |
|-------------------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|
| ALLEG05 | -0.0653 (-1.6877)* | -0.0557 (-1.3491) | -0.0157 (-0.2947) | -0.0197 (-0.1961) | 0.0168 (0.1243) |
| ALLEG06 | 0.0671 (0.331) | 0.0207 (0.0956) | -0.1176 (-0.4231) | -0.2247 (-0.4388) | -0.3504 (-0.5199) |
| ALLEG07 | -0.0988 (-0.486) | -0.0103 (-0.0472) | 0.1923 (0.6886) | 0.3528 (0.687) | 0.4628 (0.687) |
| ALLEG09 | -0.0237 (-0.3114) | 0.0114 (0.1403) | 0.0131 (0.1251) | 0.2133 (1.0997) | 0.3790 (1.3437) |
| Number of Observations | 268 | 269 | 269 | 243 | 214 |
| Adjusted R² | 0.0254 | 0.0268 | 0.0270 | 0.0210 | 0.0023 |

*** Significant at 1 percent level

** Significant at 5 percent level

* Significant at 10 percent level

TABLE 18: DELISTING CODES FOR SUED FIRMS AND MATCHED NON-SUED FIRMS

For our sample of 1,478 sued firms, we were able to identify 1,044 matched non-sued firms. A non-sued firm is identified as a match if it belongs to the same industry sector (following Breeden et al.'s (1989) classification), and has a market capitalization within +/- 50% of the corresponding sued firm. In the first two rows, we report delisting information for our sample of sued firms. The last two rows provide delisting information for our sample of matched non-sued firms.

| Delisting Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
|-------------------------------|------------------------------------|-------------|-------------------|------------------|--------------------------------------|---------------------------------------|-----------------------|-------|
| | Stock still trading (Not delisted) | Firm merged | Firm was acquired | Firm liquidation | Stock delisted/dropped from exchange | Stock suspended, but not yet delisted | Stock delisted by SEC | |
| Sued firms | 739 | 145 | 4 | 1 | 155 | 0 | 0 | 1,044 |
| Percentage | 70.79% | 13.89% | 0.38% | 0.10% | 14.85% | 0.00% | 0.00% | |
| Matched non-sued firms | 652 | 287 | 10 | 0 | 95 | 0 | 0 | 1,044 |
| Percentage | 62.45% | 27.49% | 0.96% | 0.00% | 9.10% | 0.00% | 0.00% | |

TABLE 19: DELISTING CODES FOR SETTLED FIRMS AND MATCHED NON-SUED FIRMS

For our sample of 1,332 settled firms, we were able to identify 796 matched non-sued firms. A non-sued firm is identified as a match if it belongs to the same industry sector (following Breeden et al.'s (1989) classification), and has a market capitalization within +/- 50% of the corresponding settled firm. In the first two rows, we report delisting information for our sample of settled firms. The last two rows provide delisting information for our sample of matched non-sued firms.

| Delisting Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
|-------------------------------|------------------------------------|-------------|-------------------|------------------|--------------------------------------|---------------------------------------|-----------------------|-------|
| | Stock still trading (Not delisted) | Firm merged | Firm was acquired | Firm liquidation | Stock delisted/dropped from exchange | Stock suspended, but not yet delisted | Stock delisted by SEC | |
| Settled firms | 453 | 203 | 2 | 2 | 136 | 0 | 0 | 796 |
| Percentage | 56.91% | 25.50% | 0.25% | 0.25% | 17.09% | 0.00% | 0.00% | |
| Matched non-sued firms | 420 | 281 | 26 | 4 | 65 | 0 | 0 | 796 |
| Percentage | 52.76% | 35.30% | 3.27% | 0.50% | 8.17% | 0.00% | 0.00% | |

TABLE 20: DELISTING RATIOS FOR SUED/SETTLED AND MATCHED NON-SUED FIRMS

We examine the likelihood of sued and settled firms delisting within various timeframes after their lawsuit/settlement announcement. For each sued/settled firm, we tried to identify a matched firm which was not subjected to any securities class action litigation during our sample period. In order to be selected as a match, a firm must belong to the same industry (following Breeden et al's (1989) industry classification) and must have a market capitalization within +/- of the corresponding sued/settled firm. For the 1,478 sued firms in our original sample, we are able to identify 1,044 matching non-sued firms. Similarly, for our sample of 1,282 settled firms, we are able to identify 796 firms which were not involved in any securities class action during our sample period. In Panel A, we provide summary statistics for the delisting frequency of sued vs. matched non-sued firms. In Panel B, we provide similar statistics for settled firms. We categorize a firm as failed if it had a delisting code between 400 and 799 on CRSP, i.e. if it was delisted due to liquidation, delisted by the exchange or delisted by the SEC. In active issues, or firms that merged or were acquired during our sample period are not counted as "failures". Note that our sample size decreases for long-term post-announcement windows because some of the lawsuits and settlement announcements occurred towards the end of our sample period. In the first four rows of each panel, we report the sample size across various post-announcement windows and calculate ratios of delisted firms relative to the number of firms in our sample and the number of non-delisted firms. We perform the same calculations for matched non-sued firms. In the last two rows of each Panel, we report p-values for a t-test of the equality of means and Mann-Whitney test for the equality of medians for each subsample.

| | < 3M | 3M-6M | 6M-9M | 9M-1Y | 1Y-2Y | 2Y-3Y | >3Y | Total |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Panel A: Comparison of sued and matched non-sued firms | | | | | | | | |
| Sued firms | 1,044 | 878 | 785 | 708 | 671 | 524 | 370 | 1,044 |
| Number of delisted firms | 3 | 16 | 20 | 18 | 53 | 31 | 15 | 156 |
| Percentage of delisted firms | 0.29% | 1.82% | 2.55% | 2.54% | 7.90% | 5.92% | 4.05% | 14.94% |
| Ratio delisted/non delisted | 0.29% | 1.86% | 2.61% | 2.61% | 8.58% | 6.29% | 4.23% | 17.57% |
| Matched non-sued firms | 1044 | 878 | 785 | 708 | 671 | 524 | 370 | 1044 |
| Number of delisted | 4 | 8 | 12 | 10 | 20 | 23 | 18 | 95 |
| Percentage of delisted firms | 0.38% | 0.91% | 1.53% | 1.41% | 2.98% | 4.39% | 4.86% | 9.10% |
| Ratio delisted/non delisted | 0.38% | 0.92% | 1.55% | 1.43% | 3.07% | 4.59% | 5.11% | 10.01% |
| Tests of equality of means and medians | | | | | | | | |
| p-value | 0.2795 | 0.6779 | 0.9584 | 0.8739 | 0.0401 | 0.0454 | 0.0001 | 0.0000 |
| MW p-value | 0.7589 | 0.8315 | 0.9762 | 0.9302 | 0.1026 | 0.1217 | 0.0051 | 0.0170 |
| Panel B: Comparison of settled and matched non-sued firms | | | | | | | | |
| Settled firms | 796 | 785 | 763 | 748 | 733 | 657 | 606 | 796 |
| Number of delisted firms | 1 | 3 | 2 | 7 | 30 | 28 | 67 | 138 |
| Percentage of delisted firms | 0.13% | 0.38% | 0.26% | 0.94% | 4.09% | 4.26% | 11.06% | 17.34% |
| Ratio delisted/non delisted | 0.13% | 0.38% | 0.26% | 0.94% | 4.27% | 4.45% | 12.43% | 20.97% |
| Matched non-sued firms | 796 | 785 | 763 | 748 | 733 | 657 | 606 | 796 |
| Number of delisted firms | 1 | 2 | 9 | 4 | 18 | 17 | 18 | 69 |
| Percentage of delisted firms | 0.13% | 0.25% | 1.18% | 0.53% | 2.46% | 2.59% | 2.97% | 8.67% |
| Ratio delisted/non delisted | 0.13% | 0.26% | 1.19% | 0.54% | 2.52% | 2.66% | 3.06% | 9.49% |
| Tests of equality of means and medians | | | | | | | | |
| p-value | 0.6174 | 0.7503 | 0.0004 | 0.8276 | 0.4871 | 0.2589 | 0.4962 | 0.0000 |
| MW p-value | 0.9333 | 0.9333 | 0.1746 | 0.9333 | 0.6112 | 0.4089 | 0.5728 | 0.0028 |

TABLE 21: A LOSS AND RECOVERY ANALYSIS IN SHAREHOLDER-ONLY SECURITIES CLASS ACTIONS

We employ our sample of 1,282 securities class action settlements, which were publicly announced between January 1993 and December 2002. From this sample, we select only those cases that were filed by shareholders, i.e. we exclude cases brought on behalf of bondholders, holders of warrants, options, preferred stocks, and any other securities besides common stock. In addition, we exclude firms that were already delisted at the time they entered into a settlement agreement and firms with incomplete information. For our resulting sample of 539 shareholder-only settlements, we provide a broad estimate of the cash flows between the “new shareholders” of a firm (those who own a firm’s stock at the time it settled) and the litigating “old shareholders”. Because detailed information on the individual plaintiffs in a class action and their transactions during the class action period is unavailable, our calculations are based on the assumption that the plaintiffs held the firm’s stock throughout the class action period and are all part of the litigating class. Our calculations of the wealth effects of securities class action settlements on the “new shareholders” considers only direct expenses resulting from the payment of the settlement and lawyer’s expenses to the plaintiffs. We analyze the effects of settlements on the stock prices of settling firms in a separate part of our study.

| | |
|--|----------------|
| Average length of class action period (days) | 415 |
| Average share price at the beginning of the class action period | \$23.74 |
| Average share price at the end of the class action period | \$15.22 |
| Average loss in shareholder value (\$ per share) | -\$8.52 |
| Average loss in shareholder value (in terms of market capitalization) | -\$197,219,000 |
| Average percentage loss in shareholder value (percentage change in firm price from beg. to end of class action period) | -35.9% |
| Average return on the equally-weighted CRSP index during the class action period | 32.5% |
| Excess return (underperformance) of sued firms versus the CRSP index during the class action period | -68.4% |
| Annualized excess return | -45.29% |
| Average size of settlement fund | \$9,448,248 |
| \$ Recovery per share BEFORE lawyers' fees (based on the original number of shares that were outstanding during the class action period) | \$0.17 |
| Average lawyer fees as a percentage of the settlement fund | 31.0% |
| Average reimbursement of fees and expenses to plaintiff lawfirms (in addition to their share of the settlement fund) | \$417,625 |
| \$ Recovery per share AFTER lawyers' fees (based on the original number of shares that were outstanding during the class action period) | \$0.12 |
| % Recovery of per-share loss AFTER lawyers' fees | 1.4% |
| Indirect per-share charge to new shareholders as a result of the settlement and the payment of plaintiff lawyers' fees and expenses | \$0.08 (Max.) |

TABLE 22: EQUALITY TESTS OF CARs FOR DIFFERENT TYPES OF ALLEGATIONS

We examine the effects of different types of lawsuit filings, i.e. different types of allegations, on the cumulative abnormal returns (CARs) during a two-day window surrounding the lawsuit announcement. In column 2 we report the number of lawsuits under each allegation type; in column 3 we report the different wealth effects for each allegation type, with t-statistics in column 4. In column 5 and 6 we report the median CARs and the standard deviation of CARs for each subsample. In the last two columns, we test for the significance of differences in mean and median CARs using an ANOVA F-test for means and a Kruskal-Wallis test for medians. We report p-values for each test.

| | Number of observations | CAR (0,1) | t-stat | Median | Stdev | ANOVA (p-value) | Kruskal-Wallis (p-value) |
|----------------|------------------------|-----------|------------|----------|----------|-----------------|--------------------------|
| ALLEG01 | 253 | -0.9818% | -1.7673* | -0.8235% | 8.8191% | 0.0201 | 0.0831 |
| ALLEG02 | 52 | -6.1217% | -2.8091*** | -3.4151% | 15.5627% | | |
| ALLEG03 | 327 | -2.7538% | -3.8270*** | -1.8008% | 12.9924% | | |
| ALLEG04 | 174 | -2.4899% | -2.3664** | -1.4179% | 13.8391% | | |
| ALLEG05 | 225 | -3.1164% | -4.5158*** | -2.0987% | 10.3285% | | |
| ALLEG06 | 146 | -4.2735% | -3.7887*** | -2.1844% | 13.5823% | | |
| ALLEG07 | 201 | -5.4639% | -5.2242*** | -2.1627% | 14.7910% | | |
| ALLEG08 | 25 | -2.3004% | -1.6615* | -2.3430% | 6.7828% | | |
| ALLEG09 | 128 | -4.0116% | -2.9609*** | -2.4997% | 15.2685% | | |
| ALLEG10 | 5 | 4.4753% | 2.0805** | 1.8315% | 4.3021% | | |
| ALLEG11 | 36 | -3.6465% | -1.4219 | -0.9509% | 15.1714% | | |
| Total | 1,572 | | | | | | |

*** Significant at 1 percent level

** Significant at 5 percent level

* Significant at 10 percent level

TABLE 23: TESTS FOR EQUALITY OF MEAN AND MEDIAN LITIGATION DATA FOR VARIOUS SUBSAMPLES

We form various subsets of our lawsuit and settlement samples. In Panel A, we examine the impact of the 1995 Private Securities Litigation Standards Act on settlement activity and average settlement amounts. In Panel B, we perform similar tests both for lawsuit and settlement sample. In Panel C, we divide our sample into three subperiods: the period prior to the 1995 PSLRA, the period between the 1995 PSLRA and the 1998 SLUSA, and the period after the 1998 SLUSA. In Panel C1, we perform pairwise comparisons between the three subperiods. We report p-values for tests of the equality of means and Mann-Whitney tests for tests of the equality of medians. In Panel C2, we test for the equality of means and medians among all three periods using one-way ANOVA and Kruskal-Wallis tests. In Panel D, we test for the equality of mean and median settlement activity and settlement sizes between firms listed on the NYSE, AMEX and NASDAQ. Panel D1 provides results for a pairwise comparison between the three exchanges and Panel D2 provides results for a simultaneous comparison of the three exchanges. (Note that all settlement amounts have been discounted to 1993 dollars based on CPI inflation statistics provided by the Bureau of Labor Statistics (BLS)).

| Subsample 1 | N mean median | Subsample 2 | N mean median | Tests for Equality of Means and Medians Across Groups | |
|---|---|--|---|---|------------|
| | | | | p-value | MW p-value |
| Panel A. Settlement Activity Before and After the 1995 PSLRA (Enacted on December 22, 1995) | | | | | |
| Number of settlements per month pre-1995 Reform Act | 36 months 11.19 settlements/month 11.00 settlements/month | Number of settlements per month post-1995 Reform Act | 84 months 10.45 settlements/month 10.00 settlements/month | 0.1919 | 0.2427 |
| Settlement amounts pre-1995 Reform Act | 403 settlements \$8,255,324/case \$4,060,000/case | Settlement amounts post-1995 Reform Act | 878 settlements \$13,606,383/case \$5,000,000/case | 0.0070 | 0.0489 |
| Panel B. Settlement and Lawsuit Activity Before and After the 1998 SLUSA (Enacted on May 13, 1998) | | | | | |
| Number of lawsuit filings per month pre-1998 Reform Act | 28 months 11.14 lawsuits/month 11.5 lawsuits/month | Number of lawsuit filings per month post-1998 Reform Act | 56 months 20.82 lawsuits/month 17 lawsuits/month | 0.0031 | 0.0001 |
| Number of settlements per month pre-1998 Reform Act | 64 months 10.98 settlements/month 11.00 settlements/month | Number of settlements per month post-1998 Reform Act | 56 months 10.32 settlements/month 10.00 settlements/month | 0.2044 | 0.2068 |
| Settlement amounts pre-1998 Reform Act | 703 settlements \$8,630,202/case \$4,415,000/case | Settlement amounts post-1998 Reform Act | 578 settlements \$15,927,800/case \$5,137,500/case | 0.0001 | 0.0008 |
| Panel C. Settlement Activity Before the 1995 PSLRA, Between Both Acts, and After the 1998 SLUSA | | | | | |
| Panel C1: Pairwise Comparison | | | | p-value | MW p-value |
| Number of settlements per month pre-1995 Reform Act | 36 months 11.19 settlements/month 11.00 settlements/month | Number of settlements per month between both Acts | 28 months 10.71 settlements/month 11.00 settlements/month | 0.5274 | 0.5744 |
| Number of settlements per month between both Acts | 28 months 10.71 settlements/month 11.00 settlements/month | Number of settlements per month post-1998 Reform Act | 56 months 10.32 settlements/month 10.00 settlements/month | 0.5321 | 0.4621 |
| Settlement amounts pre-1995 Reform Act | 403 settlements \$8,255,324/case \$4,060,000/case | Settlement amounts between both Acts | 300 settlements \$9,133,787/case \$4,200,000/case | 0.4189 | 0.8917 |
| Settlement amounts between both Acts | 300 settlements \$9,133,787/case \$4,200,000/case | Settlement amounts post-1998 Reform Act | 578 settlements \$15,927,800/case \$5,137,500/case | 0.0139 | 0.0076 |

| Panel C2: Aggregate Comparison | | | | ANOVA p-value | KW p-value |
|---|---|---|--|---------------|------------|
| Test for equality of mean and median number of settlements per month across all subperiods (pre-PSLRA, PSLRA-SLUSA, post-SLUSA) | | | | 0.3586 | 0.3962 |
| Test for equality of mean and median settlement amounts per month across all subperiods (pre-PSLRA, PSLRA-SLUSA, post-SLUSA) | | | | 0.0004 | 0.0038 |
| Panel D. Settlement Activity by Exchange | | | | p-value | MW p-value |
| Panel D1: Pairwise Comparison | | | | | |
| Number of settlements per month by firms traded on the NASDAQ | 120 months 6.1 settlements/month | Number of settlements per month by firms traded on the NYSE | 120 months 3.8 settlements/month | 0.0000 | 0.0000 |
| Settlement amounts per case by firms traded on the NASDAQ | 733 settlements \$8,776,459/case \$4,000,000/case | Settlement amounts per case by firms traded on the NYSE | 452 settlements \$18,217,931/case \$6,500,000/case | 0.0000 | 0.0000 |
| Number of settlements per month by firms traded on the NASDAQ | 120 months 6.1 settlements/month | Number of settlements per month by firms traded on the AMEX | 120 months 0.8 settlements/month | 0.0000 | 0.0000 |
| Settlement amounts per case by firms traded on the NASDAQ | 733 settlements \$8,776,459/case \$4,000,000/case | Settlement amounts per case by firms traded on the AMEX | 90 settlements \$6,507,229/case \$3,250,000/case | 0.4326 | 0.2723 |
| Number of settlements per month by firms traded on the AMEX | 120 months 0.8 settlements/month | Number of settlements per month by firms traded on the NYSE | 120 months 3.8 settlements/month | 0.0000 | 0.0000 |
| Settlement amounts per case by firms traded on the AMEX | 90 settlements \$6,507,229/case \$3,250,000/case | Settlement amounts per case by firms traded on the NYSE | 452 settlements \$18,217,931/case \$6,500,000/case | 0.0098 | 0.0000 |
| Panel D2: Aggregate Comparison | | | | ANOVA p-value | KW p-value |
| Test for equality of mean and median number of settlements per month across all exchanges (NYSE, AMEX, NASDAQ) | | | | 0.0000 | 0.0000 |
| Test for equality of mean and median settlement amounts per case across all exchanges (NYSE, AMEX, NASDAQ) | | | | 0.0000 | 0.0000 |

TABLE 24: TESTS FOR EQUALITY OF MEAN AND MEDIAN TIME-TO-FILING (“RUSH TO COURTHOUSE”)

We examine whether the 1998 SLUSA has an impact on the number of days that pass between the time a crime was allegedly committed and the day plaintiffs file a lawsuit. We define the time-to-filing as the number of days between the end of the class period and the announcement of a lawsuit. Because IPO-related lawsuits are instantly different from lawsuits against seasoned firms, we report them separately in panels A and B. (Note that we exclude IPO-laddering cases from our calculations in Panel B.) In each panel, we report the sample size and the means and median time-to-filing prior to and after the passage of the 1998 SLUSA. The last two columns report p-values for a t-test and a Mann-Whitney test for the equality of means and medians, respectively. (Note that in Panel C we exclude lawsuits against 18 seasoned firms because we did not find information about their class action periods.)

| Subsample 1 | N mean median | Subsample 2 | N mean median | Tests for Equality of Means and Medians Across Groups | |
|--|---------------------------------------|--|---|---|------------|
| | | | | p-value | MW p-value |
| Panel A. Average time-to-filing pre and post-1998 SLUSA (IPO-related lawsuits, including laddering cases) | | | | | |
| Average time-to-filing pre-1998 Reform Act | 40 firms 66.50 days 144.07 days | Average time-to-filing post-1998 Reform Act | 356 firms 245.50 days 252.56 days | 0.0001 | 0.0009 |
| Panel B. Average time-to-filing pre and post-1998 SLUSA (IPO-related lawsuits, excluding laddering cases) | | | | | |
| Average time-to-filing pre-1998 Reform Act | 39 firms 179.33 days 70.00 days | Average time-to-filing pre-1998 Reform Act | 60 firms 132.63 days 54.00 days | 0.3638 | 0.5986 |
| Panel C. Average time-to-filing pre and post-1998 SLUSA (Non-IPO lawsuits) | | | | | |
| Average time-to-filing days pre-1998 Reform Act | 270 firms 89.83 days 38.50 days | Average time-to-filing days post-1998 Reform Act | 793 firms 94.26 days 30.00 days | 0.7800 | 0.1542 |

TABLE 25: TESTS FOR EQUALITY OF MEAN AND MEDIAN NUMBER OF BY INSTITUTIONAL PLAINTIFFS

We examine whether institutional investors have become more involved in securities class action litigation after the 1998 SLUSA. For each case in our sample, we identify whether or not the plaintiff class is represented by an institutional investor. In Panel A, we calculate the proportion of institutional plaintiff-led lawsuits prior to and after passage of the 1998 SLUSA. In Panel B, we report ratios for the average involvement of institutions per month. In the last two columns we report p-values for a t-test and a Mann-Whitney test for the equality of means and medians between groups. Note that we were unable to obtain information on the lead plaintiff for 454 of the 1,478 lawsuits in our original sample. These firms are excluded from our calculations. In our resulting sample of 1,024 class actions, 53 were led by institutional plaintiffs and 971 were not.

| Subsample 1 | N mean median | Subsample 2 | N mean median | Tests for Equality of Means and Medians Across Groups | |
|---|------------------------|--|---------------------------|---|------------|
| | | | | p-value | MW p-value |
| Panel A. Number of institutional plaintiffs pre-and post-1998 SLUSA | | | | | |
| Total ratio of institutional plaintiffs per lawsuit pre-1998 Reform Act | 0.03* | Total ratio of institutional plaintiffs per lawsuit post-1998 Reform Act | 0.06* | n/a | n/a |
| Panel B. Monthly average of institutional plaintiffs pre and post-1998 SLUSA | | | | | |
| Monthly ratio of institutional plaintiffs per lawsuit pre-1998 Reform Act | 28 months 0.04 0 | Monthly ratio of institutional plaintiffs per lawsuit post-1998 Reform Act | 56 months 0.06 0.05 | 0.1664 | 0.0231 |

* We have 302 lawsuit filings pre-1998 out of which 8 were filed by institutional plaintiffs and 722 lawsuit filings post-1998 out of which 45 were filed by institutional plaintiffs.

TABLE 26: TESTS FOR EQUALITY OF MEAN AND MEDIAN NUMBER OF MOTIONS TO DISMISS

We examine whether a larger proportion of cases is dismissed after passage of the 1998 SLUSA. In Panel A, we report litigation activity prior to and after the 1998 SLUSA. In Panel B, we report information on the number of motions that were filed by defendant parties as well as the number and percentage of motions to dismiss that were granted during both subperiods. In the last two columns, we report p-values for a t-test and a Mann-Whitney test for the equality of means and medians between groups.

| Subsample 1 | N | Subsample 2 | N | Tests for Equality of Means and Medians Across Groups | |
|---|-------|--|-------|---|------------|
| | | | | p-value | MW p-value |
| Panel A. Number of lawsuit filings pre-and post-1998 SLUSA | | | | | |
| Total number of lawsuit filings pre-1998 Reform Act | 320 | Total number of lawsuit filings post-1998 Reform Act | 1,158 | n/a | n/a |
| Panel B. Number and percentage acceptance rate of motions to dismiss filed pre and post-1998 SLUSA | | | | | |
| Total number of motions to dismiss filed pre-1998 Reform Act | 194* | Total number of motions to dismiss filed post-1998 Reform Act | 119* | n/a | n/a |
| Number of firms whose motions to dismiss were granted pre-1998 Reform Act | 72 | Number of firms whose motions to dismiss were granted post-1998 Reform Act | 25 | n/a | n/a |
| Percentage of granted motions to dismiss pre-1998 Reform Act | 76.6% | Percentage of granted motions to dismiss post-1998 Reform Act | 21.0% | 0.2924** | 0.0621** |

* Note that for many lawsuits, we were unable to identify whether or not a motion to dismiss was filed. Prior to the 1998 SLUSA, we identified that 60% of firms filed motions do dismiss and 14.6% did not. Information for the remaining 24.6% was unavailable. After the 1998 SLUSA, we identified that 10.3% of firms filed motions to dismiss and 16.7% did not. Information for the remaining 72.9% was unavailable.

** Our mean and median tests are performed using aggregated monthly averages.

TABLE 27: WHAT DETERMINES LITIGATION ACTIVITY AND SETTLEMENT AMOUNTS?

We examine the driving forces behind monthly litigation activity and settlement amounts. We employ OLS regressions and report parameter estimates and t-statistics for a variety of explanatory variables. In column 2, we regress monthly litigation activity against the return on the CRSP equally-weighted market index and on the number of lawsuits in the 365 calendar days prior to the current month. In addition, our model includes a dummy variable that distinguishes between the pre- and post-1998 SLUSA period. (Due to their special nature, we exclude IPO-laddering cases from our analysis.) In column 3, we regress the natural log of a firm's settlement amount against the natural log of the firm's market capitalization, the annualized price drop the firm experienced during its class action period (in excess of the market), and a variety of dummy variables that identify the firm's industry sector, the type of allegations brought against the firm, the time period in which the settlement was announced, i.e. post-PSLRA/ pre-SLUSA or post-SLUSA, and the jurisdiction in which the original case was filed, i.e. federal or state court. (Note that settlement amounts and market capitalization figures have been converted to 1993 dollars based on CPI inflation statistics provided by the Bureau of Labor Statistics (BLS)). In the last row, we report an adjusted R-squared for each model.

$$NUMLAW_t = \beta_0 + \beta_1 LAWPOST98ACT_t + \beta_2 PRELITLAW_t + \beta_3 PRELITMKTRET_t + \varepsilon_0$$

$$LN_DOLLSET_i = \beta_0 + \beta_1 \ln(SIZE_i) + \beta_2 PRICEDROP_i + \beta_3 SETBETWEENACTS_i + \beta_4 SETPOST98ACT_i + \sum_{n=1}^7 \beta_{5,n} SETINDUSTRY_{i,n} + \beta_6 SETTLESTATEJURIS_i + \sum_{m=1}^7 \beta_{7,m} ALLEG_{i,m} + \varepsilon_0$$

| | Number of Lawsuits per Month t | Natural log of Settlement Amounts Paid by Firm i |
|---------------------|--------------------------------------|---|
| Variable | Coefficient (t-stat) | Coefficient (t-stat) |
| Intercept | 14.2511 (6.9337)*** | 11.1939 (25.7210)*** |
| PRELITLAW | 0.0237 (0.2374) | - |
| PRELITMKTRET | -11.8242 (-1.1625) | - |
| LN (SIZE) | - | 0.3563 (11.8764)*** |
| PRICEDROP | - | -0.0008 (-1.0968) |
| BETWEENACTS | - | 0.2866 (1.9235)* |
| POST98ACT | -2.0514 (-0.4963) | 0.6283 (4.8998)*** |
| IND02 | - | 0.1082 (0.4111) |
| IND03 | - | -0.1625 (-0.7308) |
| IND04 | - | -0.3111 (-1.1899) |
| IND07 | - | -0.0912 (-0.4077) |
| IND09 | - | 0.1369 (0.4265) |

| | | |
|-------------------------------|---------|-----------------------|
| IND10 | - | 0.3188 (1.1275) |
| IND11 | - | 0.1068 (0.4987) |
| STATEJURISD | - | -0.0862 (-0.3486) |
| ALLEG02 | - | -0.1346 (-0.6424) |
| ALLEG03 | - | -1.0805 (-1.8374)* |
| ALLEG04 | - | 1.0059 (1.7219)* |
| ALLEG05 | - | 0.0756 (0.4300) |
| ALLEG06 | - | -0.5026 (-0.7548) |
| ALLEG07 | - | 0.5471 (0.8125) |
| ALLEG09 | - | 0.2116 (0.6014) |
| <hr/> | | |
| Adjusted R² | -0.0276 | 0.3988 |

*** Significant at 1 percent level

** Significant at 5 percent level

* Significant at 10 percent level