# Private Securities Litigation Reform Act of 1995 and Legal Expense of IPOs

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# **ABSTRACT**

This study documents that legal expense of IPOs (in percent of proceeds) did not change significantly after PSLRA (Private Securities Litigation Reform Act) was enacted in 1995. More interestingly, the results stay the same when the legal expense regressions were run for IPOs in the four-industry (biotechnology, computer, electronics, and retailing) sub-samples respectively, whose litigation risks are supposedly most affected by PSLRA. The results of this study are inconsistent with those of prior studies showing either the decreased litigation risk or the increased number of securities lawsuits after the passage of PSLRA. Future studies should investigate if and how much, legal expenses of IPOs are related to litigation risk or number of securities lawsuits.

Keywords: Private Securities Litigation Reform Act, legal expense, initial public offerings



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#### INTRODUCTION

In 1995, Private Securities Litigation Reform Act (PSLRA) was passed. It was designed to curb frivolous securities lawsuits. Before the PSLRA, plaintiffs were able to initiate the securities lawsuits with minimal evidence of fraud and then use discovery to seek further proof before the trial. This meant a very low barrier to starting a litigation, which motivated the filing of weak or completely frivolous securities lawsuits. Therefore, anyone would think the passing of PSLRA would have resulted in the significant reduction in litigation risk, leading to the decrease in legal expense for IPOs.

Prior studies on PSLRA (Private Securities Litigation Reform Act) focused on 1) stock market response to the enactment of PSLRA in 1995 and 2) PSLRA's impact on financial information quality or audit quality. What's not studied rigorously yet in the literature is whether issuers' legal expenses in securities offerings such as IPOs and SEOs decreased significantly due to the seemingly lowered litigation risk after the enactment of PSLRA. The literature has mixed conjectures on this issue. While Field, Lowry, and Shu (2005) documents the increased number of securities lawsuits after the passage of PSLRA, Zhu (2009) reported lowered litigation risk of IPO issuers after PSLRA of 1995. This study investigates if PSLRA increased legal expenses of IPOs after controlling size of proceeds and other variables proven affecting legal expenses of IPOs. The result will reveal which side of the story is more plausible between Field, Lowry, and Shu (2005) and Zhu (2009), leading to the better understanding of the impact of PSLRA on litigation risk of securities offerings.

### LITERATURE REVIEW

In the studies focusing on the impact of PSLRA, the first group of studies measured stock market response. For example, Spiess and Tkac (1997) analyzed the response in the stock market to each step of progression in the enactment of PSLRA (Private Securities Litigation Reform Act) in 1995. Especially, they identified four most affected industries by PSLRA and examined the stock response of firms in those four industries (biotechnology, computers, electronics, and retailing). The idea was if the effect of PSLRA on stock prices existed, it would be most significantly detected in the stock prices of firms in those four industries. Their results showed stock price responded negatively to rumors of the presidential veto and positively to the subsequent House overriding vote. This could be interpreted as stock market investors concurred with Congress that the positive effects of the PSLRA would be more than the negative effects.

In a related study, Johnson, Kasznik and Nelson (2000) analyzed a sample that was consisted of 489 high-technology firms. Included industries were pharmaceuticals, computer hardware, and computer software and the firms in these industries were often the target of class action securities litigation. They found that in general, the PSLRA increased wealth and the stock price response was more positive when House and Senate overrode the veto in support of the firms at greatest risk of a securities class action. From a different angle, Lee, Mande and Son (2009) studied if PSLRA changed cost of capital. They used the cost of equity capital to proxy for financial information quality. The results showed that the cost of equity capital increased after the enactment of PSLRA. More importantly, the increase was greater for clients of prestige auditors and for firms perceived exposed to high litigation risk.

The second group of studies focused PSLRA's impact on financial information quality or audit quality. For example, Lee and Mande (2003) argued that PSLRA decreased audit quality. They conjectured that PSLRA reduced the litigation risk for defendants with "deep pockets" like large accounting firms. Their results showed that with reduced litigation risk of the large accounting firms after PSLRA, the audit quality decreased.

The third group of studies focused on the impact of PSLRA on litigation risk. Field, Lowry, and Shu (2005) reported that the number of securities litigations significantly increased for the time period of 1995~2000, indicating litigation risk increased after the passage of PSLRA. In contrast, Beatty, Drake, and Hogan (2002) and Zhu (2009) suggested that litigation risk decreased after PSLRA. Specifically, Beatty, Drake, and Hogan (2002) found the conditional probability of being sued decreased by 4.3% after 1995.

# DATA, VARIABLES, AND EMPRIRICAL MODEL

Data used in this study are from Thomson Financial's SDC Global New Issues database and the sample consists of firms completing IPOs for the period from 1992 to 1998. This sample period was chosen since it allows the legal expense comparison of IPOs before and after the passage of PSLRA. The sample period ended in 1998 since year 1999 and years after 1999 experienced so many confounding events such as IPO bubble (1999-2000) and Sarbanes-Oxley Act (2003) to name a few. Following the IPO literature, this study excluded best efforts offerings, unit offerings, offerings of closed end mutual funds and real estate investment trust funds. Also excluded were IPOs with non-positive book values were excluded. To be included in the sample for regression analysis, IPOs should have legal expense, underwriting expense, accounting expense, offer price, primary share % in the offer, firm age, and underwriter rank. This procedure results in 1,876 firm commitment offerings with complete data from the SDC data set.

This study uses legal expense (in percent of proceeds) in IPOs as the dependent variable. In the regressions, the key independent variables are a period dummy or year dummies. Period9698 dummy has value of one for the IPOs which went public between 1996 and 1998. Year dummies (YR93, YR94, YR95, YR96, YR97, YR98) have value of one for the IPOs which went public in 1993, 1994, 1995, 1996, 1997 and 1998 respectively. For the controls, this study included accounting expense and underwrite expense following Beatty and Welch (1996). For additional controls, this study hypothesizes legal expense would be higher for the IPOs with higher uncertainty since litigation risk would be higher when there is higher uncertainty. Uncertainty proxy variables (offer price, primary share % in the offer, firm age, and underwriter rank) are controlled because legal expense may be dependent on the uncertainty of IPOs. IPOs with higher offer price tend to be larger and therefore have more information, reducing uncertainty. IPOs with higher primary share % in the offer tend to be a younger firm, having less information and high uncertainty. Older firms tend to have more information and less uncertainty. Highly reputable underwriters tend to underwrite IPOs with more information. Lastly, it is well known that economies of scale exist in the expenses of IPOs including legal expense. In other words, IPOs with larger proceeds tend to have lower legal fees. To control this, a categorical variable, Cat, was created and used in the regressions. Cat are categories of offer size (proceeds) in million dollars. 9 offer size categories are defined as follows: Cat 1 has IPOs with the range \$2-\$9.99 million, Cat 2 has IPOs with the range \$10-\$19.99 million, Cat 3 has IPOs with the range \$20-\$39.99 million, Cat 4 has IPOs with \$40-\$59.99 million, Cat 5 has IPOs with \$60-\$79.99 million range, Cat 6 has IPOs with the range \$80-\$99.99 million, Cat 7 has IPOs with the \$100-\$199.99 million range, Cat 8 has IPOs with the \$200-\$499.99 million range, and Cat 9 has IPOs with offerings of \$500 million & higher.

### **EMPIRICAL RESULTS**

Table 1 shows summary statistics of variables. Over the sample period, legal, accounting, and underwriting expenses were expressed as percentage of proceeds and on average 1.2%, 0.8%, and 1.7% of proceeds respectively. Average offer price was \$12.13, primary shares percentage in the offered shares was 0.9%, average age was 5.68 years and average underwriter rank was 7.1. The dependent variable, legal expense, exhibits significant variation with the range between 0% and 36.4% of proceeds.

Figure 1 shows the time series of monthly average legal expense of IPOs. Since the passage of PSLRA in 1995, the legal expense seems in the down trend. This is consistent with declining litigation risk reported by Zhu (2009).

In table 2, average legal expense is reported by size of proceeds. As the size of proceeds increases, the average legal expense decreases monotonically. In other words, there are clear economies of scale in legal expense. This means that size of proceeds should be used as a control variable in legal expense regression.

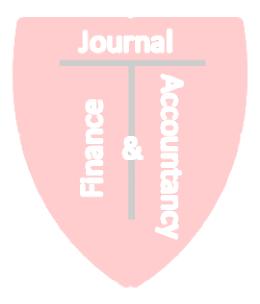
Table 3 shows results of legal expenses regression with period (1996-1998) dummy, Period9698, for the entire sample. Period9698 dummy is the key independent variable and while the coefficient of the variable is negative, it is not statistically significant. This means that after PSLRA, legal expense did not change significantly. This is inconsistent with the results of prior studies. All the other control variables are statistically significant. Accounting expense has a positive sign and explain most variation in legal expense. Underwriting expense has a positive sign. Cat has a negative sign and statistically significant, confirming the univariate results. Offer price has a negative sign and statistically significant. Primary shares % has a positive sign and statistically significant. Underwriter rank has a negative sign and statistically significant.

Table 4 shows results of legal expense regression with year dummies from 1996 to 1998. The results are qualitatively the same as those in table 3. No year dummy is statistically significant, which in large part is equivalent to the Period9698 dummy result in table 3. The only difference is that underwriter rank became insignificant. This is maybe because of the correlation between underwriter rank and year dummies.

Table 5 shows results of the same regression for the four industries the literature confirms litigation risk has been affected most by PSLRA. Four industries used are the biotechnology (SIC codes 2833–2836 and 8731–8734), computer (SIC codes 3570–3577 and 7370–7374), electronics (SIC codes 3600–3674), and retailing (SIC codes 5200–5961) industries. This industry classification followed Spiess and Tkac (1997). The result shows that Period9698 dummy is not significant for the IPOs in the four industries. This result suggests that the results in the previous tables apply to the four-industry sub-samples as well: no change in legal expense after PSLRA.

# **CONCLUSION**

Among the many possible impacts of PSLRA, this study investigates its impact on legal expense in IPOs. The literature provides mixed results on it and this study documents in favor of neither. In fact, this study presents that legal expense of IPOs did not change significantly after the passage of PSLRA. The results stand even when important control variables such as accounting & underwrite expenses and proceeds categories are included in the model. Furthermore, the results do not change even for the four-industry sub-samples which are supposedly affected most by PSLRA. Future studies should investigate if and how much, legal expenses of IPOs are related to litigation risk or number of securities lawsuits.



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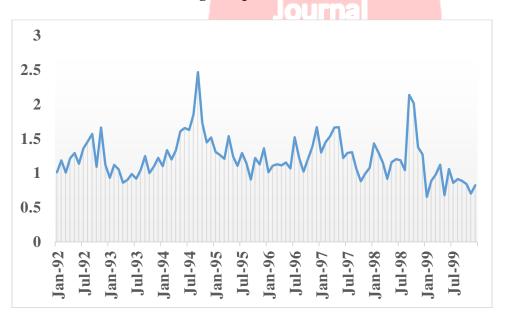


# **APPENDIX**

Table 1 Summary Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Legal Expense	4,536	1.2	1.2	0.0	36.4
Accounting Expense	4,508	0.8	0.9	0.0	20.0
<b>Underwriting Expense</b>	4,277	1.7	0.5	0.1	7.0
Offer Price	4,971	\$12.13	\$5.85	\$0.40	\$97.00
Primary Shares %	2,272	0.9	0.2	0.0	1.0
Log of (1 + Age)	2,321	1.9	1.1	0.0	5.0
Underwriter Rank	2,309	7.1	2.4	0.0	9.0

Figure 1 Legal Expense (% of Proceeds) 1992-1999



 $\label{eq:Table 2} \textbf{Legal Expense (\% of Proceeds) by Size of Proceeds}$ 

Size	Obs	Mean	Std. dev.	Min	Max
Smallest	886	2.43	1.79	0.18	36.36
2	693	1.54	0.95	0.04	12.12
3	1,199	1.00	0.61	0.02	6.30
4	631	0.75	0.68	0.02	14.33
5	310	0.58	0.47	0.01	3.95
6	193	0.50	0.43	0.03	3.57
7	362	0.41	0.34	0.00	2.10
8	201	0.28	0.45	0.00	5.18
Largest	61	0.13	0.16	0.00	0.86

Table 3
Legal Expense regression with Period (1996-1998) dummy

Variable	Coef	Std. Err	t-value	p-value
Accounting Expense	0.4360	0.0160	27.17	0.00
Underwriting Expense	0.1031	0.0318	3.24	0.00
Cat	-0.1 <mark>150</mark>	0.0126	-9.14	0.00
Offer Price	-0.0146	0.0043	-3.40	0.00
Primary Shares %	0.1933	0.0828	2.33	0.02
Underwriter Rank	-0.0470	0.0073	-6.47	0.00
Period9698 Dummy	-0.0067	0.0275	-0.24	0.81
Constant	1.3135	0.1222	10.75	0.00
N	1,876			
Adj. R-Square	53.40%			

Table 4
Legal Expense regression with Year dummies

Variable	Coef	Std. Err	t-value	p-value
Accounting Expense	0.4348	0.0162	26.80	0.00
<b>Underwriting Expense</b>	0.1036	0.0320	3.24	0.00
Cat	-0.1158	0.0128	-9.03	0.00
Offer Price	-0.0148	0.0043	-3.41	0.00
Primary Shares %	0.1674	0.0857	1.95	0.05
Underwriter Rank	-0.0143	0.0125	-1.14	0.26
YR93	0.0010	0.1809	0.01	1.00
YR94	-0.0343	0.2396	-0.14	0.89
YR95	0.0183	0.1302	0.14	0.89
YR96	0.0398	0.1282	0.31	0.76
YR97	0.0363	0.1295	0.28	0.78
YR98	0.0108	0.1321	0.08	0.94
Constant	1.3261	0.1784	7.43	0.00
N	1,876		Ъ	
Adj. R-Square	53.30%	(1)	5	
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Table 5
Legal expense regression for the most affected four industries by PSLRA

Variable	Biotech	Computer	Electronics	Retailing
Accounting Expense	0.6828***	0.4157***	0.4326***	0.4859***
Underwriting Expense	0.2512***	0.1824***	0.0462	0.2301
Cat	-0.1385	-0.1536***	-0.2016**	-0.1404**
Offer Price	-0.0293	-0.0302***	-0.0099	-0.0094
Primary Shares %	0.6642	0.3853**	0.3653	0.2441
Underwriter Rank	-0.0154	-0.0029	-0.0225	0.0096
Year9698 Dummy	0.2595**	0.0211	0.0522	-0.2679
Constant	0.3615	0.9393***	1.3202***	0.8682
N	109	347	98	90
Adj. R-Square	58.97%	56.09%	51.49%	39.95%

<sup>\*\*\*, \*\*,</sup> and \* represent the statistical significance at 1%, 5%, and 10% respectively.