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Oshkosh Scholar, Volume I, April 2006

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N. Y. Attorney General Eliot Spitzer and His Effect on the Insurance Industry: An Event Study

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Abstract:

On October 14, 2004, New York Attorney General Eliot Spitzer shook the entire insurance industry by filing a civil lawsuit against a group of insurance companies regarding their alleged price-fixing and bid-rigging. By using event study methodology, this study determines quantitatively the effects of Spitzer's announcement on a sample set of insurance companies as measured by their stock prices. If the announcement has a significant effect on the stock prices in the sample set, a specific dollar amount can be calculated as the cost of using these questionable practices in business. Results of this study show that there is a clear negative relationship between Spitzer's announcement and the stock prices in the insurance industry. We can conclude that unethical behavior caused by a conflict of interest is costly for firms in the insurance industry, and that those firms specifically charged by Spitzer in a civil suit or singled out to be subpoenaed have significantly larger losses than the industry as a whole.

Introduction

Many unexpected events and announcements occur in the United States each year that have a profound effect on certain companies, sectors, or industries and their worth. When these announcements break in the news, the full extent of the effects on the company or industry involved is often undetermined. Without concrete data derived by statistical analysis, companies cannot efficiently measure the effects of their announcements (both positive and negative) on their own company, to other similar companies, or to their entire sector.

Recently, there has been scrutiny placed on a dual commission system used to compensate some brokers in the insurance industry. According to a 2004 article in the *Wall Street Journal* by Francis (2004c), customers looking to purchase insurance will contact a broker, who then solicits bids from various insurance companies based on the type and amount of insurance that is needed. The broker then relays these bids to the customer, who chooses one and pays the broker for the insurance and a commission fee for his labor. The broker keeps the fee and passes on the payment to the insurance company whose bid was accepted. The primary practice in question is that of the collection of commissions by brokers from the insurance companies themselves. These are called "contingent commissions," which are paid to brokers only when they have sold one of the company's insurance policies. With contingent commissions in place, this creates a conflict of interest for brokers to recommend insurance only from the companies paying contingent commissions. Brokers may go so far as to manifest "bid-rigging," or solicit "...artificially high fake bids, from other insurers to give the appearance of real bidding" (Francis, 2004c). On October 14, 2004, New York Attorney General Eliot Spitzer put a damper on the entire insurance industry by announcing pending lawsuits against insurance companies for these described practices.

This project researches and analyzes the effects on companies named in an announcement made by New York Attorney General Eliot Spitzer on October 14, 2004, that he was filing a civil lawsuit against many insurance companies for price-fixing and bid-rigging. In particular, Spitzer accused Marsh & McLennan Companies (MMC) of having insurance brokers make false bids to customers to simulate competition, while actually guiding the customer to accept bids from insurance companies that would pay the highest contingent commission to the broker. This would create a conflict of interest. The lawsuit specifically named MMC, but has implications of more lawsuits across the entire insurance industry. By using event study methodology, this study will determine whether or not this announcement significantly impacted the stock prices of insurance companies.

According to Seiler (2000), "Event studies have been the primary methodology used to assess the effect that the occurrence of an event has on the returns of a firm's common stock price since the seminal works of Ball and Brown (1968) and Fama, Fisher, Jensen, and Roll (1969)." Thus, this research methodology has become a principal tool in the business research world. The purpose of this project is to quantify the direct financial impact of Spitzer's on MMC and other insurance companies named for the same offenses. We also test a sample of insurance companies to determine the effects on the insurance industry as a whole. This is important information not only to the companies being implicated, but also to shareholders who are affected by the gains and losses in the prices of the common stock shares that they own. Managers should be able to use this information to determine if internal practices should be changed and shareholders can use this information to make investment decisions. If the effects turn out to be large scale, these quantified effects may be crucial to how members of the general public understand their respective insurance companies' abilities to uphold their insurance policy contracts.

Since the event study methodology was first introduced in 1968 and 1969, computers and databases have eased the workload of gathering data, making event studies much more prominent in the academic world. The event study is often used in the economic, financial, and accounting fields of study because it quantitatively analyzes the financial impact on a firm from an informational event. Event studies are able to distinguish if an event has a positive or negative effect on a firm's stock price, therefore confirming underlying implications. Even a one or two percent change in stock prices can mean millions of dollars gained or lost by investors as a result of a single announcement or event. Because event studies are commonly used and have a very specific and set methodology, they are trusted and accepted in the financial field.

Event studies are often used to determine the potential negative effects on a firm or firms due to poor management decisions or unethical behavior. Earlier event studies have examined the effects of unethical behavior, but none so far have completed a quantitative analysis for Spitzer's lawsuit announcement on October 14, 2005. Although results proving the negative effects of these events are expected, event studies can more specifically quantify the extent of the negative effect in dollars. Gunthorpe (1997) analyzed the impact of unethical behavior by sixty-nine publicly traded corporations and found that announcements of unethical behavior resulted in large negative stock returns for the firms performing the unethical conduct (i.e. securities fraud, filing false test results, or false advertising, for example). Gunthorpe concludes that firms are

penalized by investors for unethical conduct, across various industries. This suggests that economically it is in a company's best interest to act only under ethical standards and for business ethics to be promoted in both education and the workplace. Because of the unethical nature of the allegations against the insurance industry, Gunthorpe's findings may preface some of the results of this study.

Sample Data

The final sample set consists of forty-one publicly traded corporations in the insurance industry. In order to test across all types of insurance companies, the sample includes firms from four categories of insurance companies: (i) accident and health, (ii) life, (iii) miscellaneous, and (iv) property and casualty. All firms in the sample set must fit the following criteria:

1. The firm must be publicly traded on the New York Stock Exchange, the American Stock Exchange, or the Nasdaq stock market.
2. The firm must have daily stock returns available for the eleven-day time period of study, obtained from *Yahoo*.
3. The firm cannot have any other major media announcements in the eleven-day time period of study that may contaminate the results of this study, as determined by the *Wall Street Journal Index*.

Any firm that did not meet the above criteria was removed from the sample set. A list of the firms in the sample set is shown in the Appendix, Table 1.

Methodology

In this analysis, event study methodology is used in order to measure the financial effects of Spitzer's lawsuit announcement on publicly traded insurance companies. Stock prices are used as the indicator of financial impact, and we assume that the stock market is efficient and reflects all available information immediately and accurately as the firm's value in the stock price. Therefore, any positive or negative impact on an insurance company due to Spitzer's October 14, 2004, announcement should produce an immediate change in stock price.

The day of the announcement, October 14, 2004, is defined as day zero ($t=0$), the day following the announcement is defined as day plus one ($t=1$), and each subsequent trading day through day plus five ($t=5$) is also defined. We also number the days leading up to the announcement, where the trading day prior to the announcement is day negative one ($t=-1$) and continue to number each previous trading day through day negative five ($t=-5$). This completes our eleven-day window necessary to show the effects of Spitzer's announcement.

Next, the predicted return for each day in the eleven-day window is calculated. The predicted return is measured in this study by using the return on the S&P 500 Index. This index is a commonly used benchmark of the U.S. stock market because it is a market value weighted index of the 500 largest American corporations and represents roughly 75% of the entire U.S. market.

The daily excess return is then calculated for every firm over each day in the eleven-day window. The daily excess return signifies the stock return for each day that

is directly a result from Spitzer's lawsuit announcement. Excess return is defined as:

$$ER_{it} = R_{it} - R_{mt}$$

ER_{it} is the daily excess return of a stock (i) on day t, R_{it} is the return of stock i on day t, and R_{mt} is the return of the S&P 500 Index (e.g. the stock market) on day t.

All of the daily excess returns are then averaged to create the average excess return for the entire sample set. Because the stock returns are combined here and averaged, any individual outliers will be somewhat neutralized. This average excess return shows the effects of Spitzer's announcement for each of the eleven days and is defined as:

$$AER_t = (\sum ER_{it}) / N$$

AER_t is the average excess return for day t, N is the number of companies in the sample size, and ER_{it} is the daily excess return of stock i on day t.

Finally, the cumulative average excess return (CAER) is calculated to incorporate all of the effects of Spitzer's announcement that may affect stock prices for a few days after the event. For the period of day negative one to day plus five, CAER is defined as:

$$CAER_{-1,5} = \sum AER_t$$

$CAER_{-1,5}$ is the cumulative average excess return for the period of day negative one to day plus five (-1 to 5), and AER_t is the average excess return for day t. The $CAER_{-1,5}$ can then be multiplied by mean (or median) firm's market capitalization to determine the mean dollar impact of the event.¹

Statistical Analysis

If the market views Spitzer's announcement as negative news, then the insurance companies in the sample set should experience a $CAER_{-1,5}$ value that is significantly less than zero. The t-test is used as the statistical test of significance and is defined as:

$$t = (N)^{0.5} [CAER_{-1,5} / \delta_t]$$

where $CAER_{-1,5}$ is the cumulative average excess return, δ_t is the standard deviation of the cumulative excess returns over the interval, and N is equal to the number of companies in the sample set. The percentage of negative cumulative excess returns for a group of insurance firms should also be different than the expected 50%. The binomial t-statistic used here is defined as:

$$\tau_t = (p - 0.5) / (0.25/N)^{0.5}$$

where N is the number of companies in the sample set, and p is the proportion of negative cumulative daily excess returns.

Results

In this section, the entire sample set (N=40) of insurance companies is considered to determine the effects on the entire insurance industry. It is also essential to examine whether a certain section of the industry was more affected by the event, and so four categories of insurance companies are formed: accident and health, life, miscellaneous, and property and casualty. Each of these categories is tested independently to look for trends. The insurance companies (regardless of category) that were named

¹ Market capitalization = stock price * outstanding shares.

Market capitalization represents the collective value of a company and/or its stock.

specifically by Spitzer are also tested to determine if this group experienced different excess returns. All CAERs and percent negative cumulative excess returns are also summarized in Table 2 in the Appendix.

Entire Insurance Industry

The entire sample set of insurance companies (N=40) is tested as a group. If the financial marketplace views Spitzer's announcement of civil lawsuit as negative news for the firm and will therefore affect the value of the firm and expected future earnings, the percent of negative cumulative excess returns for time period $t=-1,5$ are expected to be larger than 50%. If the market views it as a positive announcement causing the increase in value for the firms, the percent negative cumulative excess returns for time period $t=-1,5$ are expected to be less than 50%. The data shows that 85% of the sample firms experienced a negative cumulative excess return, and the entire sample of insurance companies had a CAER of almost -8%. With an average market capitalization of \$26 billion for the entire sample set, Spitzer's announcement caused an average loss of over \$2 billion and a median loss of almost \$1.5 billion for the total industry from day minus one to day five. Both the CAER and percent positive results are significant at the one percent level.

Accident and Health Insurance Companies

Since the various types of insurance companies may have different practices from other categories of insurance companies, the complete sample set is divided into four categories to determine if the type of insurance company makes an impact on the level of returns for each company. These four categories include: (i) accident and health, (ii) life, (iii) miscellaneous, and (iv) property and casualty insurance companies.

Accident and health insurance companies presented 92% negative cumulative excess returns, which is significant at the five percent level, and a CAER of -8%, which is significant at the one percent level. The average market capitalization for the accident and health sample set is \$21 billion, and the median value is \$12 billion. This resulted in an average loss of \$1.7 billion per company, and a median loss of almost \$1 billion.

Life Insurance Companies

For life insurance companies, 75% showed negative cumulative excess returns, with a CAER of -2%. Although these values are not significant at any level, the average and median losses per company were \$900 million with average and median market capitalizations of \$40 billion and \$39 billion, respectively. Also, none of the companies specifically named by Spitzer in his October 14, 2004, announcement were listed in the life insurance category.

Miscellaneous Insurance Companies

In the miscellaneous insurance group, 90% of companies had negative cumulative excess returns, and the CAER for the group is almost -15%. Both values tested are significant at the five percent level. This group has an average market capitalization of \$4.5 billion, but a median value of only \$2 billion. The average and median losses per company are \$700 million and \$300 million, respectively. This category included Marsh and McLennan Companies (MMC), which was the company of primary focus of Spitzer's announcement and civil suit.

Property and Casualty Insurance Companies

Of the property and casualty insurance companies, 80% showed negative cumulative excess returns, and the group experienced a CAER of nearly -5%. Both the percent negative and CAER are significant at the ten percent level. The average loss per company was \$2 billion and the median loss was \$1.3 billion for a sample set with average and median market capitalizations of \$44 billion and \$28 billion, respectively.

Spitzer-Named Companies

On day zero, six insurance companies in the total sample set were either charged with a civil suit for improper fees and bid-rigging or were issued subpoenas for possible future litigation for like offenses by Spitzer. From this select group of firms, 100% showed negative cumulative excess returns, which is significant at the ten percent level. They also had a CAER of -22%, which is significant at the five percent level. The average market capitalization is \$42 billion, and the median market capitalization is \$18 billion. On average, firms in this group had a loss of \$9.3 billion, and the median loss was \$4 billion. These average and median losses are considerably larger than those from other categories, while the differences in market capitalizations are less extreme.

Conclusions

This study explores and analyzes the effects on the insurance industry and specific companies named in an announcement made by New York Attorney General Eliot Spitzer on October 14, 2004, that he was filing a civil lawsuit against many insurance companies for price-fixing and bid-rigging. Event study methodology is employed here to find the average excess returns of these companies and quantify the effects of the announcement on the firms' stock price.

The effects of this announcement show a clear negative relationship with the stock prices of insurance firms overall, and in all four categories as well. We conclude that unethical behavior that causes a conflict of interest for insurance companies is costly for firms in the insurance industry. We also conclude that those firms specifically charged by New York Attorney General Eliot Spitzer in a civil suit or singled out to be subpoenaed have significantly larger losses than the industry as a whole.

These results provide valuable information to managers in the insurance industry because they provide decision-makers specific dollar amount losses in the billions for some insurance companies. Managers can use this information to reevaluate current insurance commission practices and their potentially unethical nature by comparing the benefits to the significantly high costs.

Appendix

Table 1: Sample Set of Insurance Companies

Company Name	Ticker	Category
ACE LTD*	ACE	Property/Casualty
AEGON ADR	AEG	Life
AETNA INC	AET	Accident and Health
AFLAC INC	AFL	Accident and Health
ALLIANZ AKTIENGESSELL	AZ	Property/Casualty
ALLSTATE CORP	ALL	Property/Casualty
AMERICAN INTL GROUP*	AIG	Property/Casualty
AON CORP*	AOC	Miscellaneous
ASSURANT INC	AIZ	Accident and Health
AXA ADS	AXA	Life
BALDWIN LYONS	BWINB	Miscellaneous
BROWN & BROWN INC	BRO	Miscellaneous
CHUBB CORP, THE	CB	Property/Casualty
CIGNA CORP	CI	Accident and Health
COVENTRY HEALTH CARE	CVH	Accident and Health
CREDIT SUISSE GROUP	CSR	Life
EVEREST RE GROUP	RE	Accident and Health
GALLAGHER ARTHUR J	AJG	Miscellaneous
HARTFORD FINANCIAL SERVICES*	HIG	Property/Casualty
HILB ROGAL HOBBS	HRH	Miscellaneous
HUB INTL LTD	HBG	Miscellaneous
HUMANA INC	HUM	Accident and Health
ING GROUP	ING	Life
LOEWS CORP	LTR	Property/Casualty
MANULIFE FINANCIAL CORP	MFC	Life
MARSH MCLENNAN CO*	MMC	Miscellaneous
METLIFE INC	MET	Life
MILLEA HLD ADR	MLEA	Property/Casualty
NATIONAL FINANCIAL PARTNERS	NFP	Miscellaneous
PRINCIPAL FINANCIAL GROUP	PFG	Accident and Health
PROGRESSIVE CORP	PGR	Property/Casualty
PRUDENTIAL FINANCIAL INC	PRU	Life
ST PAUL TRAVELERS CO	STA	Property/Casualty
SUN LIFE FINANCIAL INC	SLF	Life
TORCHMARK CORP	TMK	Accident and Health
UNITED HEALTH GROUP	UNH	Accident and Health
UNUMPROVIDENT CORP	UNM	Accident and Health
USI HOLDINGS CORP	USIH	Miscellaneous
WELLPOINT INC	WLP	Accident and Health
WILLIS GROUP HOLDING*	WSH	Miscellaneous

**Denotes companies specifically charged in a civil complaint or received subpoenas for possible future litigation, on day $t=0$.*

**Table 2: Cumulative Average Excess Returns (CAER) and
Percent Positive of Cumulative Excess Returns**

	CAER (percent)	Percent Negative
All Insurance Companies (N = 40)	-7.80 ***	85.00 ***
Insurance Companies by Category		
<i>Accident and Health (N = 12)</i>	-8.17 ***	91.67 **
<i>Life (N = 8)</i>	-2.21	75.00
<i>Miscellaneous (N = 10)</i>	-14.82 **	90.00 **
<i>Property and Casualty (N = 10)</i>	-4.81 *	80.00 *
Companies Named by Spitzer	-22.00 **	100.00 *
***, **, * Significant at the one, five, and ten percent significance levels, respectively. All significance levels are for two-tailed t-tests.		

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