# How Do Investment Companies Fare Under Obama and Trump Fiduciary Rules?

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In 2015 President Obama urged the Department of Labor (DOL) to update its fiduciary regulation. A major factor driving this decision was a White House Council of Economic Advisers report showing that investment companies collect \$17 billion annually in conflict-of-interest fees from American workers. Using an event study methodology, we find investment companies, on average, experience a large decrease in market capitalization from the Obama Effect. Conversely, the 2016 Trump presidential election signaled a continuation of the fees and a rollback in government regulations. The investment companies, on average, experience an astounding increase in market capitalization from the Trump Effect.

# **INTRODUCTION**

While almost fifty percent of Americans believe retirement advisors are required to put clients' interests first, loopholes in Department of Labor (DOL) regulation actually allow retirement advisors to put their own interests ahead of those of their clients. According a White House Council of Economic Advisers analysis, this conflict of interest allows investment companies to collect \$17 billion per year in additional fees from American workers contributing to retirement savings. In 2015, President Barack Obama demanded an end to this practice, leading the fight for change.

"Today, I'm calling on the Department of Labor to update the rules and requirements that retirement advisors put the best interests of their clients above their own financial interests. It's a very simple principle: You want to give financial advice, you've got to put your client's interests first." (President Barack Obama, February 23, 2015)

The "Fiduciary Rule," as it is now known, was created in 1975 when the DOL released their fiduciary standard test. The *Fiduciary Rule* requires a retirement advisor to place his or her client's interests first. However, the 1975 fiduciary regulation had loopholes exempting many retirement advisors from the fiduciary standard. These loopholes have allowed investment companies to collect billions of dollars in conflict-of-interest fees from American workers and their families. In 2010 the DOL proposed closing loopholes, but the financial industry successfully lobbied to kill the proposal. In 2011 the DOL said they would propose new language in 2012, but were unsuccessful. Thus, investment companies continued collecting conflict-of-interest fees. In 2015 President Obama decided to take on investment companies, a goliath industry with vast resources.

In February 2015, President Obama called for the DOL to close loopholes that allowed investment companies to collect an additional \$17 billion in fees annually from American workers. In April 2015 the DOL proposed a new *Fiduciary Rule*, published in the Federal Register, that would require fiduciary advice to place clients' interests first for all retirement accounts. A comment period was allowed where advocates and opponents presented their concerns through comments and hearings. In April 2016 the DOL published their final *Fiduciary Rule* in the Federal Register, which stated that retirement advisors would be held to a fiduciary standard on all retirement accounts. The new *Fiduciary Rule* would finally close the loopholes allowing investment companies to collect conflict of interest fees.

While many Republicans in the Senate and the House of Representatives opposed the new *Fiduciary Rule*, the Republicans lacked enough votes to override the President's veto of their joint resolution of disapproval. Thus, investment companies started preparing for the implementation of the three phases of the new rule. The *Fiduciary Rule* became effective on June 7, 2016. Compliance with Phase 1, the obligation to act in the client's best interest, started April 10, 2017. Phase 2 compliance (or full compliance) is required as of January 1, 2018.

When the reality of the 2016 election results set in, the nation realized that Republicans had won control of the White House, the Senate, and the House of Representatives. Many experts immediately speculated the Republicans would kill the new *Fiduciary Rule*. If the new regulation is revoked, American workers saving for retirement will continue to pay the additional \$17 billion in fees to investment companies due to conflict of interest. Anecdotal evidence supports that this action will likely take place; the stock price of many investment companies increased dramatically following the election.

This paper uses event study methodology to examine the financial impact the new *Fiduciary Rule* on investment companies. Additionally, since gains to the investment companies reflect losses to Americans saving for retirement, one can determine the impact on both groups. For example, if investment companies collect \$17 billion in conflict of interest fees, then American workers lose \$17 billion. The first three major announcements during the Obama Presidency are expected to show American workers benefited from the *Fiduciary Rule* while investment companies suffered. The fourth event, Republican nominee Donald Trump being elected President, is expected to show investment companies benefited as it became likely the *Fiduciary Rule* would be revoked.

# **RESEARCH OBJECTIVE AND METHODOLOGY**

Event study methodology (Brown and Warner, 1985; Peterson, 1989; Schweitzer, 1989; Wells, 2004) is utilized to determine the immediate financial impact of the *Fiduciary Rule* events on the stock prices of investment companies. It is possible to isolate the immediate impact of the *Fiduciary Rule* on stock prices due to two unique stock price characteristics. First, a stock price is determined by the expected future earnings of the company. Second, stock prices react quickly and efficiently to the announcement of events that impact a company's future earnings. Thus, if investors conclude the *Fiduciary Rule* will decrease future earnings of investment companies, investment company stock prices will decline. However if investors perceive investment companies can circumvent the *Fiduciary Rule*, investment company stock prices will not decline. Policy makers can therefore gauge the expected economic impact on Americans saving for retirement.

The event study methodology divides a stock return into two distinct components. The first component is driven by movement in the general stock market. The second component is attributed to an informational event, such as expected changes in the *Fiduciary Rule*. In this paper we examine the second component of the stock return.

# **Event Windows**

The *Fiduciary Rule* event windows are shown in Panel A of Table 1. Each of the four event windows is based on an announcement that provided significant information to the markets.

# TABLE 1FIDUCIARY RULE EVENTS AND EVENT WINDOWS

#### **Panel A: Announcement Dates and Announcements**

**Obama Effect** – Events 1, 2, and 3

Event 1 - 02/23/15: President's call to action for the DOL to update fiduciary regulation. Event 2 - 04/20/15: DOL's proposed rules published in the Federal Register.

Event 3 - 04/06/16: DOL's final rules published in the Federal Register.

**Trump Effect** – Event 4

Event 4 - 11/09/16: Republican nominee Trump elected President.

# Panel B: Timeline of the Event Windows

Event Day	-1	0	+1	+2	+3	+4
Obama Effect						
Event Window 1	02/20/15	02/23/15	02/24/15	02/25/15	02/26/15	02/27/15
Event Window 2	04/17/15	04/20/15	04/21/15	04/22/15	04/23/15	04/24/15
Event Window 3	04/05/16	04/06/16	04/07/16	04/08/16	04/11/16	04/12/16
Trump Effect						
Event Window 4	11/08/16	11/09/16	11/10/16	11/11/16	11/14/16	11/15/16

# Obama Effect

The first three events are termed the Obama Effect and indicate the *Fiduciary Rule* would likely eliminate the conflict-of-interest fees paid to investment companies. Event one is President Obama's call to action for the DOL to update fiduciary regulation. President Obama understood he could not get Congressional approval to eliminate conflict-of-interest fees so he facilitated the change through the DOL. This limited the *Fiduciary Rule* to retirement accounts. To apply the *Fiduciary Rule* to non-retirement accounts, Congressional approval would have been necessary. Event two is when the DOL's proposed rules were published in the Federal Register. At this point the public can provide feedback to the DOL and financial market participants start to calculate the impact of the *Fiduciary Rule*. Event three is the publication of the final rules, which allows the financial markets to finally calculate the true impact of the *Fiduciary Rule* on investment companies.

#### Trump Effect

The fourth event, termed the Trump Effect, is the election of President Trump. With Republican control of the White House, the Senate, and the House of Representatives, the financial markets expected a rollback of the *Fiduciary Rule* as well as a rollback on other regulation and restrictions on investments

companies. In other words, the financial markets believed investment companies would continue collecting conflict-of-interest fees of \$17 billion annually from American retirement savings.

#### Event Window

To capture how the *Fiduciary Rule* impacted stock prices, we use a six-day event window surrounding the announcement date as shown in Panel B of Table 1. Since the event window should capture the total effect on the stock price, it is common to use several days for the event window. Day zero, (t = 0), is defined as the announcement date while day minus one, (t = -1), is one trading day before the announcement date. Day plus one, (t = +1), is one trading day after the announcement date, and so forth where day plus four, (t = +4), is four trading days after the announcement date.

#### Data

The sample is comprised of investment companies collected from *Research Insight* that meet all the requirements listed in Table 2. Requirement one is listing in *Research Insight's* active U.S. company dataset. Requirement two is trading on the NYSE, AMEX, NASDAQ, or a regional stock exchange. Requirement three is a SIC code of 6211 (brokerages), 6282 (mutual funds), or 6311 (life insurance). Requirements four and five are incorporation in the U.S. and an unqualified auditor's opinion, respectively. The sixth requirement is market capitalization of at least \$300 million, which is the minimum amount to be classified as a small cap stock (Investopedia, May 3, 2017). *Investors Business Daily (June 2, 2015)* states stocks with fewer than 400,000 shares traded daily are classified as thinly traded. Thus, requirement seven is each firm must have an average monthly trading volume of 8.8 million shares for the last two months of 2014 which equates to 22 trading days per month multiplied by 400,000 shares traded per day

TABLE 2
COMPANY REQUIREMENTS TO BE INCLUDED IN THE SAMPLE

Firms that passed
9110
6302
96
82
81
65
42
36

To isolate the stock price reaction due only to the *Fiduciary Rule*, it is crucial that firms not have any major news announcement during the event window. Thus, requirement eight is each firm must have daily stock returns and market capitalization values during the four event windows as well as having no major news announcement during any event window. *Lexis Nexis* is used to determine whether there are any other major news announcements during the event window. When there is another major

announcement affecting the company during the event window, the effect of the *Fiduciary Rule* on that company cannot be isolated and the observation must be removed from the sample.

The final sample includes thirty-six companies, including the seven brokerages, 20 mutual fund companies, and nine life insurance companies listed in Table 3. The 6211 SIC code represents brokerages described as: *Establishments primarily engaged in the purchase, sale, and brokerage of securities; and those, generally known as investment bankers, primarily engaged in originating, underwriting, and distributing issues of securities* (United States Department of Labor, OSHA, <u>https://www.osha.gov/oshstats/</u>). The 6282 SIC code represents mutual funds described as: *Establishments primarily engaged in furnishing investment information and advice to companies and individuals concerning securities and commodities on a contract or fee basis.* The 6311 SIC code represents the life insurance industry described by the U.S. Department of Labor as: *Establishments primarily engaged in underwriting life insurance. These establishments are operated by enterprises that may be owned by stock-holders, policy holders, or other carriers.* 

N	Iarket Cap		Market Cap
Brokerage Companies		Mutual Fund Companies	
1. E Trade Financial Corp	\$7,024	1. Affiliated Managers Grp Inc	\$11,927
2. Goldman Sachs Group Inc	\$75,199	2. Artisan Partners Asset Mgmt	\$1,996
3. Interactive Brokers Group	\$2,192	3. Blackrock Inc	\$61,596
4. KCG Holdings Inc	\$850	4. Blackstone Group LP	\$24,569
5. Morgan Stanley	\$67,283	5. Carlyle Group LP	\$2,285
6. Raymond James Financial Corp	\$8,044	6. Eaton Vance Corp	\$4,879
7. TD Ameritrade Holding Corp	\$18,949	7. Federated Investors Inc	\$3,572
Mean Brokerage Company	\$25,649	8. Fortress Investment Grp LLC	\$1,709
Median Brokerage Company	\$8,044	9. Franklin Resources Inc	\$30,469
	,	10. Janus Capital Group Inc	\$3,157
Life Insurance Companies		11. KKR & Co LP	\$10,879
1. American Eqty Invt Life Hldg	\$2,588	12. Legg Mason Inc	\$5,903
2. Genworth Financial Inc	\$4,032	13. MSCI Inc	\$5,440
3. Lincoln National Corp	\$13,293	14. Och-Ziff Capital Mgmt LLC	\$2,248
4. Metlife Inc	\$56,166	15. Price (T. Rowe) Group	\$20,198
5. Primerica Inc	\$2,464	16. Principal Financial Grp Inc	\$14,845
6. Prudential Financial Inc	\$34,529	17. Schwab (Charles) Corp	\$38,816
7. Reinsurance Group Amer Inc	\$5,755	18. SEI Investments Co	\$6,807
8. Torchmark Corp	\$6,387	19. Waddell & Reed Finl Inc -Cl A	\$4,255
9. Voya Financial Inc	\$8,450	20. WisdomTree Investments Inc	\$2,579
Mean Mutual Fund Company	\$14,852	Mean Mutual Fund Company	\$12,906
Median Mutual Fund Company	\$6,387	Median Mutual Fund Company	\$5,672
Mean Investment Company	\$14,852	1	
Median Investment Company	\$6,387		

TABLE 3 BROKERAGES COMPANIES, MUTUAL FUND COMPANIES, LIFE INSURANCE COMPANIES, AND MARKET CAPITALIZATION (MILLIONS), AS OF 02/15/2015

# **Research Questions and Hypotheses**

The research question is whether investment companies collecting conflict-of-interest fees experienced a significant stock price change during the various *Fiduciary Rule* event windows. To answer this question, the following hypotheses are considered in the alternative form.

H<sub>a1</sub>: The stock returns (cumulative abnormal returns) of the investment companies attributed the Obama Effect are different from zero.

- H<sub>a2</sub>: The percent of positive stock returns (cumulative abnormal returns) of the investment companies attributed to the Obama Effect are different than fifty percent.
- H<sub>a3</sub>: The stock returns (cumulative abnormal returns) of the investment companies attributed the Trump Effect are different from zero.
- H<sub>a4</sub>: The percent of positive stock returns (cumulative abnormal returns) of the investment companies attributed to the Trump Effect are different than fifty percent.
- H<sub>a5</sub>: The stock returns (cumulative abnormal returns) of the investment companies attributed the Net Effect are different from zero.
- H<sub>a6</sub>: The percent of positive stock returns (cumulative abnormal returns) of the investment companies attributed to the Net Effect are different than fifty percent.

To test the odd numbered hypotheses, that the cumulative abnormal returns are different from zero, both a parametric t-test and non-parametric Wilcoxon signed rank test are used. To test the even numbered hypotheses, that the number of positive and negative cumulative abnormal returns are not equal (50%), non-parametric sign tests are used. The non-parametric tests address concerns related to small sample sizes and possible violations of the assumption that the data are normally distributed.

## Methodology

The predicted (or normal) return is calculated for each day in the event window for each investment company. The predicted return is what one would expect if there were no *Fiduciary Rule* event. Since the return on the market index is commonly used as the predicted return, we will use the daily market return of the S&P 500 Index as the predicted return. The S&P 500 represents America's 500 largest companies and accounts for approximately 75% of the U.S. stock market's value. Hence, the S&P 500 return is an excellent proxy for the market return.

The daily abnormal return is calculated for each investment company for each day over the six-day event window. The daily abnormal return represents the return not predicted by the market index and is an estimate of the change in the stock price on that day due to the *Fiduciary Rule* event. The daily abnormal return, AR<sub>it</sub>, for each investment company i on day t is defined as:

$$AR_{it} = R_{it} - R_{mt}$$
(1)

where  $R_{it}$  is the return on the common stock of investment company i on day t and  $R_{mt}$  is the return on the market index (S&P 500 Index) on day t.

The cumulative abnormal return is calculated for each investment company because in many cases the market reaction to the announcement of an event may linger for days. For example, it may take financial analysts and investors several days to determine the impact of the *Fiduciary Rule* event upon a company's expected future earnings captured by the stock price. The stock market may continue to make stock price adjustments over several days. Thus, the cumulative abnormal return is an estimate of the stock return caused by the event over the six-day event window. The cumulative abnormal return, CAR<sub>i</sub>, for each investment company i for the six-day event window beginning with day -1 through day +4 is defined as:

$$CAR_{i} = \sum_{t=1}^{+4} AR_{it}$$
(2)

where AR<sub>it</sub> is the daily abnormal return for investment company i on day t.

Lastly, the mean and median cumulative abnormal returns are calculated for the investment companies in the sample. The mean cumulative abnormal return can be viewed as a diversified portfolio which eliminates unique individual stock returns by offsetting random positive stock returns with random negative stock returns. Thus, we have a mean cumulative abnormal return which only captures the characteristics of the *Fiduciary Rule* event. Furthermore, if the *Fiduciary Rule* event did not impact the future earnings of investment companies, then the mean cumulative abnormal return should not be significantly different from zero. Likewise, the median cumulative abnormal return should not be

significantly different from zero if the *Fiduciary Rule* event did not impact future earnings of investment companies. Finally, we examine the percent of cumulative abnormal returns that are positive for each event window. If the *Fiduciary Rule* event did not impact the future earnings of investment companies, then the percent of cumulative abnormal returns that are positive should not be significantly different from fifty percent.

We employ three tests to examine the data. T-tests and Wilcoxon signed rank (WSR) tests are employed to determine whether the cumulative abnormal returns are significantly different from zero. The t-tests examine the mean return while the Wilcoxon signed rank (WSR) tests, which do not assume normally distributed data, examine the difference in median returns. Sign tests are used to determine whether the proportion of positive cumulative abnormal returns is significantly greater than 50 percent under the assumption of no reaction to the event. According to the efficient market hypothesis, the likelihood of a rise or fall in stock price should be, on average, a flip of the coin. The sign test requires neither a normally distributed sample nor that the population be symmetric. Thus, the sign test is appropriate for small samples with non-normal distributions.

# RESULTS

Below we discuss the results of the Obama Effect, the Trump Effect, and the Net Effect. We also discuss Industry Effect results and Size Effect results.

### **Obama Effect**

We evaluate the Obama Effect the first three events cumulatively, and find the investment companies suffered tremendous losses. As shown in Table 4 the investment companies' mean and median CAR are - 2.78% and -2.22%, respectively, while 78% of the companies experience a negative CAR. When we calculate the absolute dollar impact on the investment companies, we find the mean and median market capitalization losses to be \$385 million and \$114 million, respectively. Cumulatively, the thirty-six investment companies lost \$14 billion in market capitalization. Our results imply that since these firms will no longer collect conflict-of-interest fees, the revenue stream and, ultimately profits, are reduced until the firm is less valuable to investors. All three of our test results, which are both statistically and economically significant, clearly show investment companies have much to lose with the implementation of the *Fiduciary Rule*.

IABLE 4
INVESTMENT COMPANIES: CUMULATIVE ABNORMAL RETURNS (CAR) FOR THE
OBAMA EFFECT, TRUMP EFFECT, AND NET EFFECT

Investment Companies (n=36)	<b>Obama Effect</b>	Trump Effect	Net Effect
Mean CAR	-2.78%***	9.77%***	6.98%***
t-statistic	-3.19	9.48	6.18
(p-value)	(.003)	(<.001)	(<.001)
Median CAR	-2.22%***	9.45%***	7.26%***
Wilcoxon signed rank test	-212	322	273
(p-value)	(<.001)	(<.001)	(<.001)
Percent positive CARs	22%***	97%***	86%***
Sign test	-10	17	13
(p-value)	(.001)	(<.001)	(<.001)
Shapiro-Wilk test for normality	Not normal***	Not normal	Not normal
(p-value)	(0.001)	(0.248)	(0.340)
***, **, and * denote one, five, and t	en percent significand	e levels, respectively.	

We also test if there is an industry effect (SIC code) by examining brokerages (SIC code 6211), mutual fund companies (SIC code 6282), and life insurance companies (SIC code 6311). As shown in Table 5 we find no industry effect as the results of each industry are similar to the full-sample results, with all industries suffering losses from the Obama Effect.

We then test if there is a size effect (market capitalization) by examining the large firms (market cap >\$10 billion) and small firms (market cap <\$10 billion). As shown in Table 5, we find no size effect as the results of both the large and small firms are similar to the full-sample results, with both groups suffering losses from the Obama Effect.

# **Trump Effect**

We evaluate the Trump Effect, the presidential election, and find the investment companies experience tremendous gains. As shown in Table 4 the investment companies' mean and median CAR are 9.77% and 9.45%, respectively, while 97% of the companies experience a positive CAR. When we calculate the absolute dollar impact on the investment companies, we find the mean and median market capitalization gains to be \$1.56 billion and \$595 million, respectively. Cumulatively, the thirty-six investment companies gained \$56 billion in market capitalization. Since it is anticipated these firms will be able to collect conflict-of-interest fees, the revenue stream and profits will be greater and the firm is more valuable to investors. Again, all three test results, which are both statistically and economically significant, clearly show investment companies have much to gain with the Trump Administration killing the *Fiduciary Rule*.

#### TABLE 5

# INDUSTRY EFFECT AND SIZE EFFECT: CUMULATIVE ABNORMAL RETURNS (CAR) FOR THE OBAMA EFFECT, TRUMP EFFECT, AND NET EFFECT

Panel A: Industry Effect				
	<b>Obama Effect</b>	Trump Effect	Net Effect	
Brokerages, n=7				
Mean CAR	-1.95%*	11.42%***	9.47%***	
Median CAR	-2.72*	13.19%**	10.40%**	
Percent positive CARs	29%	100%**	100%**	
Shapiro-Wilk test for normality	Not normal	Not normal*	Not normal	
Mutual funds, n=20				
Mean CAR	-2.60*	7.69***	5.09***	
Median CAR	-1.82%**	7.28%***	5.50%**	
Shapiro-Wilk test for normality	Not normal**	Not normal	Not normal	
Life insurance, n=9				
Mean CAR	-3.83*	13.09***	9.26**	
Median CAR	-2.58%**	10.79%***	8.91%**	
Percent positive CARs	11%**	100%***	89%**	
Shapiro-Wilk test for normality	Not normal	Not normal	Not normal	
	Panel B: Size Effe	et		
Large firms, n=14				
Mean CAR	-2.28**	9.10***	6.82***	
Median CAR	-1.65%	9.46%***	5.87%**	
Percent positive CARs	29%	100%***	86%**	
Shapiro-Wilk test for normality	Not normal	Not normal	Not normal	
Small firms, n=22				
Mean CAR	-3.10**	10.19***	7.09***	
Median CAR	-2.81%***	9.66%***	7.52***	
Percent positive CARs	18%***	95%***	86%***	
Shapiro-Wilk test for normality	Not normal**	Not normal	Not normal	

\*\*\*, \*\*, and \* denote one, five, and ten percent significance levels, respectively.

T-test, Wilcoxon signed rank test, and sign test are used to examine mean CAR, median CAR, and percent positive CARs, respectively.

Test values and p-values are available from the authors.

As shown in Table 5 and consistent with the Obama Effect, we find no industry or size effects within the Trump Effect. All three industries have results similar to the full-sample results whereby they experience tremendous gains from the Trump Effect. Likewise, both large and small firms have results similar to the full-sample with large and small firms gaining tremendously from the Trump Effect.

#### Net Effect

The Net Effect is the cumulative result of the Obama Effect and Trump Effect. We find the Trump Effect to be much greater than the Obama Effect. With the election of Trump, investment companies recovered all the losses from the Obama Effect and more. In other words, investment companies expect not only to benefit from the "Fiduciary Rule" rollback, but also from other rollbacks in other regulation and restrictions.

When the Net Effect is evaluated we find the investment companies experience tremendous gains. As shown in Table 4, the investment companies' mean and median CAR are 6.98% and 7.26%, respectively, while 86% of the companies experience a positive CAR. When we calculate the absolute dollar impact on the investment companies, we find the mean and median increase in market capitalization to be \$1.18 billion and \$522 million, respectively. Cumulatively, the thirty-six investment companies gained \$42 billion in market capitalization. Since it is anticipated these firms will experience fewer regulations and restrictions, their future profits are favorable and more valuable to investors. The Net Effect results clearly show investment companies gained with Trump being elected President. Lastly, similar to both the Obama Effect and Trump Effect results, we find no industry or size effects as shown in Table 5.

# CONCLUSIONS

President Obama called for the elimination of the \$17 billion of conflict of interest fees paid each year to investment companies by Americans saving for retirement. He urged for investment advisors to put their clients' interests first. Since President Obama lacked the support of the Republican controlled Congress, he facilitated the change through the DOL, a regulatory body for retirement accounts. We find a large Obama Effect whereby investment companies experience a mean and median loss in market capitalization of \$385 million and \$114 million, respectively. This result is not surprising, since the profitability and value of investment firms is reduced by the inability to collect conflict-of-interest fees. However, the Trump Effect completely returned those losses and more to the investment companies. Under the Trump Effect, investment companies experience an astonishing mean and median increase in market capitalization of \$1.56 billion and \$595 million, respectively. Collectively, these thirty-six firms gained \$56 billion in market capitalization when Trump was elected President. Given that Americans saving for retirement will likely continue to pay conflict-of-interest fees, the financial markets are optimistic about the future revenue streams of these investment companies.

#### REFERENCES

- Brown, S.J., & J.B Warner (1985). Using daily stock returns: the case of event studies. *Journal of Financial Economics*, 14, 3-32.
- Peterson, P.P. (1989). Event studies: a review of issues and methodology. *Quarterly Journal of Business and Economics*, 28, 36-66.
- Schweitzer, R. (1989). How do stock returns react to special events? *Business Review Federal Reserve Bank of Philadelphia*, July/August: 17-29.

Wells, W. (2004). A beginner's guide to event studies. Journal of Insurance Regulation, 22: 61-70.