

6. MEASURING THE IMPACT OF THE US PRESIDENTIAL ELECTIONS ON THE STOCK MARKET USING EVENT STUDY METHODOLOGY

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Abstract

The paper analyzes the sign and statistical significance of abnormal return generated on the New York Stock Exchange as a consequence of two US presidential elections cycles in November 2016 and November 2020. The analysis involved a total of 283 companies listed on the NYSE, in five business sector. The analysis relied on standard event study methodology. The main findings showed that companies in the military, financial and energy sectors have consistent reactions: positive when the Republican candidate wins the elections, and negative when the Democratic candidate wins. Electronic industry companies did not show consistent results: after the 2016 elections, there was no statistically significant abnormal return, while after the 2020 elections they recorded statistically significant positive abnormal return. As for companies in the medical sector, there was no abnormal return after any election cycle.

Keywords: event study, abnormal return, market return, presidential elections

JEL Codes: G14, C12

1. Introduction

The effects of two presidential elections cycles in the United States, in which Donald Trump took part as the Republican candidate: the first, held on November 8, 2016, when he defeated Hillary Clinton and the second, held on November 3, 2020, when he was defeated by Joseph Biden. The research of both events will focus on 283 stocks listed on the NYSE across five business sector. To determine sign and statistical significance of abnormal return, event study methodology will be used. The aim of this paper is to determine the existence of a statistically significant effect of presidential elections on the returns of selected stocks. The secondary objective is to determine whether the observed sectors show consistent effects, i.e. whether the sectors that recorded growth in the event of Donald Trump's victory recorded a decline after his defeat and vice versa.

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Almost all polls before both election cycles favored Democratic candidates, Hillary Clinton and Joseph Biden, respectively. (McCormick, 2016; Burns, Martin and Stevens, 2020). Polls have shown that the Democratic Party candidates had a significant advantage in Electoral College, and that, judging by the number of states where they were found to be in the lead, they needed victory in only one of several "swing states" (Cohn, 2016). Nevertheless, at the 2016 elections, Donald Trump had advantage from the beginning of the vote count, which he maintained throughout election night. After winning in several key "swing states" (Florida, Ohio), as well as several states believed to certainly support Hillary Clinton (Pennsylvania, Wisconsin), it became clear that Trump would be elected president. The election night in 2020 began similarly, with Donald Trump's victories in swing states. However, key states such as Pennsylvania, Wisconsin and Michigan supported the Democratic candidate this time. Donald Trump's political stances during the campaign, but also during the presidential mandate, were extremely radical (Gupta, 2016). Therefore, in the light of his moves, but also the preferences of certain companies towards Republicans, i.e. Democrats, it will be interesting to analyze what effects on the market these elections results caused.

The first part of the paper will give a review of previous event studies on the impact of election results on trends in stock returns. Authors will formulate hypothesis based on experiences from previous researches and information on the attitudes of certain industrial sectors towards one or another political party. The second part of the paper will present event study methodology. A method of determining abnormal return will be explained, and a set of parametric and non-parametric tests for determining its significance will be selected. The third part will give the results of the analysis and conclusion on individual and overall effects of elections.

2. Literature review and hypothesis formation

The United States is the country with the most pronounced connection between politics and economics. Many academic studies showed that political events create abnormal returns on financial markets. Niederhoffer, Gibbs and Bullock (1970) showed over a long time series that the immediate market reaction depends on the Party of the winning candidate. The general conclusion is that the market expands when the Republican candidate wins and contracts when the Democratic candidate wins. Riley and Luksetich (1980) analyzed market reaction to the victory of the Republican Party with similar findings. Roberts (1990) analyzed the effect of Ronald Reagan's victory in 1980 on military sector prices of stocks, concluding that the impact was positive. According to available data, as many as 19 of the 20 largest suppliers of the U.S. Department of Defense donate primarily to the Republican Party (Brown, 2018). Based on previous sources, hypotheses will be formed that military sector companies record an abnormal return that is related to the success of the Republican candidate in the elections.

H_{1a}: Stocks of the military sector recorded a positive abnormal return after Donald Trump's victory in the 2016 elections.

H_{1b}: Stocks of the military sector recorded a negative abnormal return after the defeat of Donald Trump in the 2020 elections.

Obradović and Tomić (2017) analyzed the impact of Barack Obama's victory in the 2012 elections on financial sector stock prices, concluding that there was a statistically significant negative effect. As Eggen and Murakami Tse (2010) state, the financial sector has traditionally supported Republican candidates. Based on previous sources, hypotheses will be formed that financial sector companies record an abnormal return that is related to the success of the Republican candidate in the elections.

H_{2a}: Stocks of the financial sector recorded a positive abnormal return after Donald Trump's victory in the 2016 elections.

H_{2b}: Stocks of the financial sector recorded a negative abnormal return after the defeat of Donald Trump in the 2020 elections.

Herron, et al. (1999) carried out extensive research on effects of elections in the US in 1992 on a wide variety of 74 sectors to conclude that there was a significant effect in 15 sectors. Among the sectors with a significant effect, there was the medical industry sector. Companies in this sector have donated significantly more funds to the Democratic Party than to Republicans in the previous decade (Cain, 2018). Also, medical sector companies generated significant results through medical programs launched by the Democratic Party during the first decade of the 21st century, such as Obamacare. Therefore, hypotheses will be formed that medical sector companies record an abnormal return that is related to the success of the Democratic candidate in the elections.

H_{3a}: Stocks of the medical sector recorded a negative abnormal return after the defeat of Hilary Clinton in the 2016 elections.

H_{3b}: Stocks of the medical sector recorded a positive abnormal return after Joseph Biden's victory in the 2020 elections.

The energy sector is traditionally the strongest pillar of corporate support for Republicans. Large fossil fuel companies have strongly supported Republicans in all election cycles since World War II (Goldenberg and Bengtsson, 2016). In addition, a large number of former and current Republican Party leaders are personally associated with companies in the sector, such as the Bush family. Therefore, hypotheses will be formed that energy sector companies record an abnormal return that is related to the success of the Republican candidate in the elections.

H_{4a}: Stocks of the energy sector recorded a positive abnormal return after Donald Trump's victory in the 2016 elections.

H_{4b}: Stocks of the energy sector recorded a negative abnormal return after the defeat of Donald Trump in the 2020 elections.

Electronic industry companies traditionally make larger donations to the Democratic Party. This is also true for traditionally dominant companies, such as IBM, Microsoft and Intel, as well as for relatively new players such as Facebook. Accordingly, hypotheses will be formed that electronic industry companies record an abnormal return that is related to the success of the Democratic candidate in the elections. However, it should be borne in mind that Donald Trump's policy during his presidential term was protective towards these companies, with especially harsh attitude regarding the competition from the People's Republic of China. Therefore, it may happen that the results after the 2020 elections deviate from expectations.

H_{5a}: Stocks of the electronic industry recorded a negative abnormal return after the defeat of Hilary Clinton in the 2016 elections.

H_{5b}: Stocks of the electronic industry recorded a positive abnormal return after Joseph Biden's victory in the 2020 elections.

3. Methodology

The foundations of methodology were laid by Nobel Prize laureate, Fama (Fama, et al. 1969). Dodd and Warner (1983), Brown and Warner (1985) and Corrado (1989) dealt with the formulation of the methodology. It is based on regression, parametric and non-parametric statistical tests. The purpose is to prove the existence of abnormal return during the event period. Therefore, for research purposes, it is important to irrevocably define the event, determine whether it was expected or unexpected, and select stocks to observe and tests to perform.

After identifying the events and defining the sample, one should define the estimation window and the event window to calculate the normal and abnormal return. Determining these categories requires market data on selected stocks during and just before the event window. The normal return is determined using linear regression for each stock during estimation window. It lasts from 2 to 8 months before the day of the event. The longer the period, the better it offsets side-events that affect stocks of individual companies – Serra (2002, p. 2).

The event window has a central place in the analysis. It is set asymmetrically with respect to the event day. If the event was expected, the event window would start before the event day and end shortly after. If the event was unexpected, the event window would start a day or two before the day of the event and last several days after, as surprise events tend to show effects later.

Given a long estimation window, it is possible to calculate the market trend for each stock. Normal return can be both positive and negative. Just as the estimation window determines normal return, the event window determines abnormal return. The abnormal return can also be positive and negative – if the event lowers the stock price, the abnormal return will be negative. It represents the difference between the the historic return during event window and the normal return calculated for the same period (Corrado, 2010).

To determine the abnormal return, the normal return must first be calculated. MacKinlay (1997, pp. 17-19) provides different models to determine the normal return. Cable and Holland (1999) performed a comprehensive analysis of the potential of each of these models. We applied the market model as the one that most often used in practice. For any stock i , market model is:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

where R_{it} is i the stock return at time t in estimation window, R_{mt} is the market indicator (an index) return at the same time, and ε_{it} is the random error, having an expected value $E(\varepsilon_{it}) = 0$ and variance $var(\varepsilon_{it}) = \sigma_i^2$, i.e. normal distribution. Parameters α_i and β_i are constant and market model coefficient, and are calculated by regression of market return of each stock and the return of market indicator.

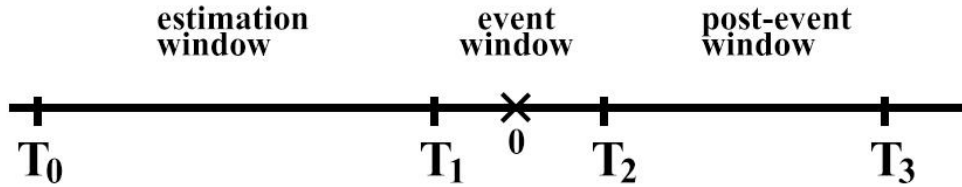
To determine the abnormal return, Serra (2002) states that, first, the expected return for each stock in the event window period should be calculated using market model methodology. The expected return $E(R_i)$ is then applied to determine the abnormal return.

$$AR_{it} = R_{it} - E(R_{it}) \quad (2)$$

$$Var(AR_{it}) = \sigma_{\varepsilon_i}^2 \quad (3)$$

where AR_{it} is the abnormal i stock return on day t in the event window, R_{it} is the return (historic value) on stock i on that day, and $E(R_{it})$ the expected return on that stock on that day. In practice, the abnormal return will always exist, but there is a question of its statistical significance. According to Diagram 1, t is in (1) between T_0 and T_1 (this period will be denoted by L_1), and in (2) between T_1 and T_2 (this period will be denoted by L_2), 0 denoting event day.

Diagram 1: Time dimension of event study



Source: Campbell, Lo, MacKinlay (1989)

For analysis purposes, the aggregate abnormal return is used. Aggregation may be carried out in several ways: the first is for each event window day, making it possible to determine average abnormal return on day t , \overline{AR}_t :

$$\overline{AR}_t = \frac{1}{N} \sum_{i=1}^N AR_{it} \quad (4)$$

$$Var(\overline{AR}_t) = \frac{1}{N^2} \sum_{i=1}^N \sigma_{\varepsilon_i}^2 \quad (5)$$

Aggregation can also be done for individual stocks over several days of the event window, preferably all days, giving a cumulative abnormal return of i stock, CAR_i :

$$CAR_{i(t_1, t_2)} = \sum_{t=t_1}^{t_2} AR_{it}, \quad T_1 \leq t_1 < t_2 \leq T_2 \quad (6)$$

$$Var(CAR_{i(t_1, t_2)}) = \sigma_{i(t_1, t_2)}^2 = (t_2 - t_1 + 1) \sigma_{\varepsilon_i}^2 \quad (7)$$

Finally, one can calculate the average cumulative abnormal return, \overline{CAR} . Both CAR and \overline{CAR} can be calculated for any two or more consecutive days. In this paper, these values will be calculated for the entire event window.

$$\overline{CAR}_{(t_1, t_2)} = \frac{1}{N} \sum_{i=1}^N CAR_{i(t_1, t_2)} \quad (8)$$

$$Var(\overline{CAR}_{(t_1, t_2)}) = \frac{1}{N^2} \sum_{i=1}^N \sigma_{i(t_1, t_2)}^2 \quad (9)$$

The condition for (3), (5), (7) and (9) is a high value of L_1 , where the variance formulas are reduced to a form given – MacKinlay (1997, p. 21). In this paper, a standardized cumulative abnormal return – $SCAR_i$ is also applied in tests. It is standardized for each individual stock and calculated as a quotient of CAR_i value and the standard deviation of the given stock:

$$SCAR_{i(t_1, t_2)} = \frac{CAR_{i(t_1, t_2)}}{\sigma_i} \quad (10)$$

The next stage is to test hypothesis on statistical significance. It should be noted that two types of tests are most commonly used – parametric and non-parametric. Of parametric tests, t-test, J_1 and J_2 test will be applied in this paper, and of non-parametric tests, authors decided to apply J_3 (Sign test).

One of mostly applied statistical tests is t-test, which tests the differences of the realized and hypothetical value of a statistic. T-test statistics is:

$$t = \frac{\overline{AR}_t - AR_0}{s/\sqrt{N}} \quad (11)$$

The hypothetical value $AR_0 = 0$ indicates the absence of abnormal return. Therefore, t-statistics is calculated by dividing the average abnormal return on a given day by the quotient of standard deviation of the whole sample during the estimation window and the square root of the number of observations (Samitas and Kenourgios, 2004, p. 9). The critical value for a two-sided test is ± 1.96 with a confidence level of 95%.

The other two parametric tests, J_1 and J_2 , provide a single value for the whole event window. They test \overline{CAR} and $J_2 \overline{SCAR}$ respectively, where the \overline{SCAR} is obtained as the average of all $SCAR$ values for observed stocks.

$$J_1 = \frac{\overline{CAR}_{(t_1, t_2)}}{\sqrt{\sigma_{i(t_1, t_2)}^2}} \quad (12)$$

$$J_2 = \sqrt{\left(\frac{N(L_1 - 4)}{L_1 - 2}\right)} \overline{SCAR}_{(t_1, t_2)} \quad (13)$$

where values of t_1 and t_2 in (14) and (15) may be any days during event window. The critical values for these tests are also ± 1.96 with a confidence level of 95%, because these are two-sided tests.

Of non-parametric tests, the work will apply sign test and Corrado test, which studies refer to as J_3 and J_4 tests. Sign test, or J_3 , according to Luoma (2011), examines distribution of observed variable around median value. It tests the sign of CAR. The formula for calculating J_3 is:

$$J_3 = \left(\frac{N^{+(-)}}{N} - 0.5 \right) \frac{\sqrt{N}}{0.5} \quad (14)$$

N is the total number of observed stocks, and $N^{+(-)}$ the number of positive or negative values of statistic (depending on what is examined). Usually a number of positive values is taken, except in the case of one-sided tests when examining whether the observed event leads to a negative abnormal return. The critical value of the test is ± 1.64 in the case of two-sided test, which will be applied in this paper.

4. Results

A six-month estimation window was used to assess market developments for both events. In order to test the robustness of parametric tests, Bechetti and Ciciretti (2011) propose a control repetition of the analysis with estimation windows of different lengths. Therefore, the study was repeated for a 8-month estimation window and a 4-month estimation window. Market indicator was SP 500 index, because it covers a broader market segment than the Dow Jones (500 companies compared to just 30 with DJ). The analysis for both events involved a total of 283 corporate stocks, divided into 5 samples according to the business sector. Detailed overview of the number of stocks per sector can be seen in Table 1 and Table 2. Historical data has been downloaded from *Yahoo! Finance* website, with all statistical calculations made using the *IBM SPSS 22* statistical package. The period in which the effects were observed is $T_{-3} - T_{+3}$, where T_0 is the day of the event - November 8, 2016 in the first case, and November 3, 2020 in the second case. The aggregation of cumulative indicators was performed at the levels of CAR (-3; 0) and CAR (0; +3). This should determine whether the day of the event leads to a change in the sign of abnormal return, or whether it is a consequence of a longer-term trend.

With reference to abnormal return in the event window, the following statistical tests have been performed: t-test, J_1 and J_2 of parametric tests, and J_3 and J_4 of non-parametric tests. The values of all test statistics for 2016 elections are given by sector in Table 1. The values of all test statistics for 2020 elections are given by sector in Table 2. The underlined values are values with statistical significance. T-test values are calculated for each observed day of the event window, while other tests are cumulative and are performed at two levels of aggregation mentioned before.

Table 1. Values of test statistics and sample sizes by sectors, for the 2016 elections. T_0 = November 8, 2016.

Sectors	Obs.	Period	t-test	J_1	J_2	J_3
Defense sector	27	T-3	-0.71186	$J_1 (-3;0)$ 1.369368	$J_2 (-3;0)$ <u>4.22096</u>	$J_3 (-3;0)$ 1.176697
		T-2	<u>2.03971</u>			
		T-1	-1.7885			
		T_0	-0.13255			
		T+1	<u>5.927868</u>	$J_1 (0;+3)$ 14.81905	$J_2 (0;+3)$ <u>17.34212</u>	$J_3 (0;+3)$ <u>4.314555</u>
		T+2	<u>4.192074</u>			
		T+3	<u>4.782833</u>			
Financial sector	85	T-3	1.345787	$J_1 (-3;0)$ -1.85608	$J_2 (-3;0)$ <u>-4.52046</u>	$J_3 (-3;0)$ -1.62698
		T-2	<u>2.51343</u>			
		T-1	<u>-4.28417</u>			
		T_0	<u>-6.19494</u>			
		T+1	<u>5.360137</u>	$J_1 (0;+3)$ <u>16.75483</u>	$J_2 (0;+3)$ <u>15.34164</u>	$J_3 (0;+3)$ <u>4.880935</u>
		T+2	<u>6.488847</u>			
		T+3	<u>7.50632</u>			
Energy sector	52	T-3	<u>-2.44031</u>	$J_1 (-3;0)$ <u>-4.99175</u>	$J_2 (-3;0)$ <u>-12.2668</u>	$J_3 (-3;0)$ <u>-1.94145</u>
		T-2	-1.61854			
		T-1	0.690424			
		T_0	-1.73991			
		T+1	<u>3.782433</u>	$J_1 (0;+3)$ 1.774752	$J_2 (0;+3)$ <u>2.675585</u>	$J_3 (0;+3)$ <u>1.664101</u>
		T+2	-1.42652			
		T+3	0.104933			
Medical sector	68	T-3	<u>-2.96311</u>	$J_1 (-3;0)$ -1.89804	$J_2 (-3;0)$ <u>4.725147</u>	$J_3 (-3;0)$ -0.61085
		T-2	<u>4.386592</u>			
		T-1	-0.82199			
		T_0	-0.79715			
		T+1	-1.06331	$J_1 (0;+3)$ -1.36339	$J_2 (0;+3)$ -0.22009	$J_3 (0;+3)$ -0.61085
		T+2	0.920793			
		T+3	0.677813			
Electronic	51	T-3	-1.0556			

Sectors	Obs.	Period	t-test	J ₁	J ₂	J ₃
industry		T-2	1.420835	J ₁ (-3;0)	J ₂ (-3;0)	J ₃ (-3;0)
		T-1	-0.32796	-1.99669	-2.87147	-0.28284
		T ₀	-1.30058			
		T+1	-2.75899	J ₁ (0;+3)	J ₂ (0;+3)	J ₃ (0;+3)
		T+2	-2.08875	-1.54057	1.406447	-0.84853
		T+3	5.450244			

Source: Authors based on calculation

Table 2. Values of test statistics and sample sizes by sectors, for the 2020 elections. T₀ = November 3, 2020.

Sectors	Obs.	Period	t-test	J ₁	J ₂	J ₃
Defense sector	27	T-3	0.217701			
		T-2	3.167359			
		T-1	5.773634	J ₁ (-3;0)	J ₂ (-3;0)	J ₃ (-3;0)
		T ₀	0.551359	7.138232	18.08803	4.314555
		T+1	-2.89893			
		T+2	-3.5766	J ₁ (0;+3)	J ₂ (0;+3)	J ₃ (0;+3)
		T+3	-1.16784	-5.08522	-5.70667	-3.13786
Financial sector	85	T-3	-0.53291			
		T-2	6.063522			
		T-1	2.072498	J ₁ (-3;0)	J ₂ (-3;0)	J ₃ (-3;0)
		T ₀	-0.81554	7.316384	8.141292	3.731961
		T+1	-9.74737			
		T+2	-0.4523	J ₁ (0;+3)	J ₂ (0;+3)	J ₃ (0;+3)
		T+3	-7.31679	-15.7039	-20.0498	-6.38045
Energy sector	52	T-3	-0.76617			
		T-2	4.710913			
		T-1	0.038302	J ₁ (-3;0)	J ₂ (-3;0)	J ₃ (-3;0)
		T ₀	-2.12622	-0.93531	5.224627	2.886751
		T+1	-4.29146	J ₁ (0;+3)	J ₂ (0;+3)	J ₃ (0;+3)
		T+2	-1.95765	-20.1545	-32.6473	-5.7735
		T+3	-5.99708			
Medical sector	68	T-3	-1.80086	J ₁ (-3;0)	J ₂ (-3;0)	J ₃ (-3;0)
		T-2	-0.13413	2.753182	2.187522	1
		T-1	2.290861			
		T ₀	1.722433	J ₁ (0;+3)	J ₂ (0;+3)	J ₃ (0;+3)
		T+1	-0.29095	0.626807	-0.54246	-1.25

Sectors	Obs.	Period	t-test	J ₁	J ₂	J ₃
		T ₊₂	-0.49365			
		T ₊₃	-0.88807			
Electronic industry	51	T ₋₃	-1.52942			
		T ₋₂	-1.50856	J ₁ (-3;0)	J ₂ (-3;0)	J ₃ (-3;0)
		T ₋₁	-1.54231	<u>-2.79773</u>	<u>-3.66737</u>	-1.31278
		T ₀	1.844857			
		T ₊₁	-0.93458	J ₁ (0;+3)	J ₂ (0;+3)	J ₃ (0;+3)
		T ₊₂	<u>2.3571</u>	<u>3.983183</u>	<u>7.921119</u>	0.729325
		T ₊₃	1.266345			

Source: Authors based on calculation

It can be concluded from Table 1 that the victory of the Republican candidate has a strong positive effect on the stocks of military, financial and energy sectors. The positive effect is confirmed by statistically significant t-tests for all three days after the election, as well as all cumulative tests for the period (0; +3). Performed tests provide enough evidence to support hypotheses H_{1a}, H_{2a} and H_{4a}. Furthermore, Election Day changes the sign of abnormal return in financial and energy sector, because the cumulative tests for the pre-event period (-3; 0) are negative and statistically significant. As far as the medical sector is concerned, the tests did not provide evidence to support hypothesis H_{3a}. Only 2 out of 7 t-tests statistics have statistical significance and both belong to the pre-event period (-3; 0). In the post-event period (0; +3) no cumulative test has statistical significance, although the values are negative. The situation is similar with regard to the electronics industry. In the period (0; +3) there are two statistically significant t-tests that show a negative abnormal return and one that shows a positive abnormal return. Their effects offset at the cumulative level, so none of the cumulative tests has statistical significance. Therefore, there is no evidence to support H_{5a}.

It can be concluded from Table 2 that the loss of the Republican candidate has a strong negative effect on the stocks of military, financial and energy sectors. The negative effect is confirmed by t-tests, which are statistically significant in all three sectors on two of the three post-event days, as well as by all cumulative tests for the period (0; +3). Performed tests give enough evidence to support hypotheses H_{1b}, H_{2b} and H_{4b}. Furthermore, Election Day changes the sign of abnormal return in all three sectors, because all cumulative tests for the pre-event period (-3; 0) are positive and statistically significant. As far as the medical sector is concerned, the tests did not provide evidence to support hypothesis H_{3b}. Only t-test statistic for day T₋₁, as well as the J₁ and J₂ tests statistics for the pre-event period (-3; 0) have statistically significant positive values. After the Election Day, there are no statistically significant test statistics, and their sign often changes. Regarding the electronics industry, the t-test statistic for day T₊₂ has a statistically significant positive value, as well as J₁ and J₂ test statistics for the post-event period (0; +3). These results give needed support to hypothesis H_{5b}. Furthermore, Election Day changes the sign of abnormal return in the electronic industry, because the cumulative tests for the pre-event period (-3; 0) are negative and statistically significant.

Table 3 provides a complete overview of supported and rejected hypotheses based on the performed analysis.

Table 3: A hypotheses overview

2016 Elections	2020 Elections
H _{1a} : supported	H _{1b} : supported
H _{2a} : supported	H _{2b} : supported
H _{3a} : not supported	H _{3b} : not supported
H _{4a} : supported	H _{4b} : supported
H _{5a} : not supported	H _{5b} : supported

Conclusion

It can be stated that the paper has met both objectives. Research has shown that both events created of abnormal returns in the observed business sectors. An analysis of Donald Trump's victory confirmed the results of previous researches, which showed a positive impact of the Republican victory on companies in financial and military sectors. In line with expectations, a positive effect was also recorded among the energy companies. These three sectors show consistent results when analyzing the second event, because after the loss of Donald Trump, they recorded a statistically significant negative abnormal return. This shows that these sectors are following the results of the Republicans, regardless of whether it is an election victory or a defeat. The achieved consistency thus gives importance to the obtained results.

Contrary to expectations, the medical sector and the electronics industry do not show statistically significant abnormal returns after the 2016 elections. The results of the medical sector are also inconclusive after the 2020 elections, because even after the loss of Donald Trump, there was no statistically significant effect. Therefore, it can be concluded that the medical sector does not follow the election results of the Democrats. The change occurred in the electronics industry, as there was positive abnormal return recorded after the 2020 elections. This sector is also the only one that shows inconsistency of results.

In order to examine the robustness of the obtained results, the procedure of determining the abnormal return of individual stocks was repeated for estimation windows of 8-month and 4-month, respectively. The obtained values correspond to those determined using 6-month estimation window and no deviation was identified that would lead to substantially different test results and initiate different conclusions.

Possible limitations of this study are related to the selection of stocks for the sample. It was stated that, in at least one case, statistical significance was on the borderline, and that its value could be questionable if the sample was larger. Inclusion of additional sectors in the analysis would certainly give added value and provide new information on the total effect of elections on the entire market. Further research could go in the direction of involving J₄ non-parametric tests in the analysis, and changes in the structure of the event window, in order to obtain more extreme values for J₁ and J₂ test statistics.

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