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Making American industries great again?

A study on the effect of the 2016 U.S. Presidential elections and their unexpected outcome on the portfolio returns of 29 U.S. industries

Bachelor Thesis Financial Economics

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Abstract

This paper studied the portfolio returns of 29 U.S. industries during the 2016 U.S. Presidential elections. U.S. industries were classified according to the 30-industry classification of Fama and French. Value weighted portfolio returns were calculated by CRSP using all stocks on the NYSE, Nasdaq and AMEX over the period May 1st 2016 to December 31st 2016. Reactions after the three Presidential election debates and the Election Day outcome have been measured. Significant negative reactions of the healthcare, finance and oil industries were expected after the three debates and significant positive reactions of the same industries were expected after Election Day outcome based on campaign promises. However, only the healthcare industry showed results in line with the expectation, which is explained by the Affordable Care Act discussion during the campaign period. The finance and oil industry showed surprisingly fluctuating results and did not seem to favor one of the two candidates just like all other industries except for the services industry, which showed positive significant reactions after the three debates and negative significant reactions after Election Day outcome. Also, no pattern is found in industry-level campaign contributions and their effect on the abnormal returns of the industries.

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Introduction

Donald Trump being elected as the 45th President of the United States came as a surprise to the world. As Hillary Clinton even led the exit polls on Election Day and had an 85% chance to win according to the Upshot, chances for Donald Trump to win the elections did not seem big (Andrews, Katz, & Patel, 2016). Thus, the election of Donald Trump was one of the most unexpected results in U.S.' elections history. Since the whole world, and so the financial markets, thought Hillary Clinton would become the 45th President, the information of Donald Trump winning the elections could not have been incorporated in stock prices before the actual outcome. Therefore, the unexpected outcome also led to an unexpected reaction of the stock market. While many forecasters expected a significant fall in the stock markets if Trump was elected, in general the stock markets have risen significantly after his election. Among others, the S&P 500 index has gone up with 6% since Election Day (Samson, Wigglesworth, & Bullock, 2017). Next to the stock market in general, returns of specific sectors like banks and drug makers rose after Donald Trump's election as well (Kiersz, 2016).

Obviously, Donald Trump has been the ultimate winner of these elections and Hillary Clinton the loser. But a more interesting question is: which industries did win during these elections and which did lose? According to the Efficient Market Hypothesis (EMH) all information and future expectations are incorporated in stock prices, so no significant abnormal reactions should be found in the industries (Fama, 1970). However, it is already known that Presidential elections cause abnormal reactions that are not in line with Fama's theory (Nordhaus, 1975). Because Donald Trump's election was not expected at all, some studies have already been done on this topic. For example, it is found that heavy industry and banking experienced a significant rise in abnormal returns, while apparel and healthcare experienced a significant fall (Wagner, Zeckhauser, & Ziegler, 2017). However, other studies found the healthcare industry as a winner instead (Blotter, 2017) (Bouoiyour & Selmi, 2017). Also oil and gas, real estate, defense, consumer goods and services have been found among the winners (Bouoiyour & Selmi, 2017). Gobran and Bacon (2017), who studied the effect of the 2004 U.S. Presidential elections on U.S. industries, even recommend studying the effect of the U.S. 2016 Presidential elections on the U.S. industries because of their unexpected outcome.

However, the studies mentioned above only used the outcome of Election Day as a proxy for industries "winning" or "losing" the 2016 U.S. Presidential elections. Because of the unexpected outcome of the elections it is more interesting to measure the returns of U.S. industries while Hillary Clinton seemed to win compared with the outcome of Election Day. The aim of this paper is therefore to study the difference in reactions of different U.S. industries' portfolio returns on Hillary Clinton being in

the lead and on Donald Trump actually winning the elections. The U.S. industries are distributed according to the 30-industry classification of Fama and French. The outcome of the three Presidential election debates, which Hillary Clinton won, are used as a proxy for the expectation of Hillary Clinton winning and the outcome of Election Day is used as a proxy for Donald Trump actually winning. Only one paper has been written about the effect of the Presidential debates on stock prices yet and it even found significant positive results on the S&P 500 (Wolfers & Zitzewitz, 2016).

This paper expands existing literature because it does not only investigate the reaction of U.S. industries on the Election Day outcome, but also on the outcome of the three Presidential election debates. No other research to the knowledge of the author has investigated this phenomenon yet with the methodology of this paper. In fact, no research to the knowledge of the author has been done yet on stock returns after the second en third Presidential election debates at all. Also, the effect of industry-level campaign contributions on the abnormal returns of the industries is measured, as recommended by Gabron and Bacon (2017). Furthermore, this research is empirically relevant for investors and firms in specific industries as it gives guidelines on which industries will benefit more under Donald Trump and which industries do react on Presidential election debates.

To study above-mentioned subject, the following research question is set up:

What effect did the U.S. 2016 Presidential elections and their unexpected outcome of Donald Trump becoming the 45th President of the United States have on the portfolio returns of different U.S. industries?

Based on previous literature and policy promises one expectation of this paper is that the healthcare industry will show negative reactions after the three Presidential election debates and a positive reaction after Election Day outcome. This expectation exists because the Affordable Care Act and healthcare in general have been one of the main topics of the 2016 U.S. elections. Also, the finance industry is expected to show negative reactions after the three Presidential debates and a positive reaction after Election Day outcome. Because Hillary Clinton wanted to regulate the industry more and Donald Trump promised deregulation – this was also the case for the healthcare industry – these expectations are made. Lastly, the oil industry is expected to negatively react on Hillary Clinton being in the lead and positively on Donald Trump becoming President since Hillary Clinton's campaign focused on climate change and renewable energy. However, only the healthcare industry showed results in line with the expectations. The finance and oil industry both showed surprisingly fluctuating reactions and no relationship has been found between these industries favoring one of the two candidates.

The remainder of this paper is structured as follows. Section I gives a review of the relevant literature. Thereafter, Section II describes the data and the methodology. The results are presented in

Section III. Finally, Section IV closes with the conclusion, implications of the study and recommendations for further research.

I. Literature review

Political Business Cycle

It is already known for decades that presidential elections in the U.S. have an effect on stock prices and thus a lot of academic research has been done on this topic. One of the most well known phenomena is the Political Business Cycle developed by Nordhaus (1975), which is a result of the macroeconomic policy around elections. In the period prior to Election Day the up scaling of transfers and the cutting of taxes are often expanding the US economy. After Election Day the American economy is often found to be contracted (Tufte, 1978). Furthermore, most wars and recessions tend to start in the first half of the term of a new President. As a result of these two types of policies, stock prices were found to rise in the two years prior to Election Day and they were found to fall in the two years after Election Day in previous researches (Allvine & O'Neill, 1980). This study confirmed the phenomenon known as the 208-week cycle.

Also, differences are found in stock markets' reactions on a Republican or Democrat win. Snowberg, Wolfers and Zitzewitz (2007) have measured this effect on the U.S. stock market for a period from 1880 until 2007. After almost every election, the stock markets rose with about 2-3% after a republican win and fell after a democratic win in the period from election evening to post Election Day. Riley and Luksetich (1980) and Niederhoffer, Gibbs, and Bullock (1970) found similar results in the short-term event windows.

However, according to the study of Jacobsen and Stangl (2005) specific U.S. industries do not follow the rule of the Political Business Cycle nor do they follow the rule of outperformance after a Republican win. Macro-economic determinants like investors' expectation of policies of the candidates seem to be the biggest influencer of industry stock returns.

Uncertainty and stock prices

According to Dahl et al. (1963) Election Day is one of the elements of an uncertain political phenomenon. The other elements are wars, governmental processes and threats. The uncertain information hypothesis (UIH) of Brown et al. (1988) confirms this theory by stating that uncertainty is great prior to an event - in this case Election Day - but will be resolved afterwards. As a result of this uncertainty stock prices are high prior to Election Day, but will fall down on the day of the event. Eventually, they will recover after the event.

Schipper et al. (1987) and Schwert (1981) found that changes in expected value of policy decisions are reflected in stock returns, which means that unexpected outcomes of political power lead

to different expected policy decisions and thus stock returns will also change with these changes in expected decisions. Since the election of Donald Trump has been an unexpected phenomenon to the world while taking poll outcomes into account, this theory is interesting to keep in mind while reading this paper.

Corporate contributions of campaigns and stock prices

Gobran and Bacon (2017) examined if industries that had favored a specific Presidential candidate benefited from the election outcome if that candidate became President by using the 2004 U.S. Presidential elections. Fifteen firms in a specific industry have been assigned as favoring a democratic outcome and other fifteen firms in a specific industry as favoring a republican outcome based on policy promises. They found that because polling data has already been priced in to the stocks, there were no abnormal effects. Thus, because the Presidential outcome of 2004 was no surprise, both stock prices of "democrat favoring" industries as of "republican favoring" industries did not react abnormally on the election's outcome. This paper recommends researching the U.S. 2016 elections because of their surprising outcome.

Furthermore, studies have been done on the correlation between campaign donations by firms and their future abnormal returns. Cooper, Gulen and Ovtchinnikov (2010) found that firms that make donations for Democrat candidates showed the strongest effect in future returns based on U.S. campaigns from 1979 to 2004. Furthermore, a significant relationship has been found between the future abnormal returns of firms and the number of candidates they sponsor. The ability of the candidate to help the specific firm even strengthens this relationship. The conclusion of this study is that investors should invest in firms that support the most candidates, since the market can be arbitraged this way. Also, a positive effect between campaign contributions and stock returns is found in the study of Shon (2010), who measured the effect in the 37-day election recount period during the 2000 elections between Bush and Gore.

Another study on the 2000 Presidential elections and campaign sponsoring is done by Knight (2006), who tested 70 politically sensitive firms from the Iowa Electronic Market during the six months leading up to Election Day. The firms were either favored under Bush or Gore. One of the most sensitive sectors was the tobacco sector, which was worth 13% more when Bush was leading the polls. Microsoft competitors and alternative energy companies were respectively worth 15% and 16% less when Bush was leading the polls. This supported both the campaign contributions as the policy promises; Bush did not want to regulate the tobacco sector, Bush was more pro-Microsoft than Gore and Gore promoted alternative energy sources.

Political speeches and stock prices

Another topic interesting for this paper is the effect of political speeches on stock returns. Political speeches provide investors with information about the candidates' view on policy issues and possible changes they would start if elected. If a political speech is informative and thus comes with new information, it should affect stock prices (Campbell and Shiller, 1987). Also, linguistic tone seems to affect investor sentiment and thus market returns (Durnev et al., 2014). Candidates seem to speak more negatively about their opponents at the end of their campaigns (Lau and Promper, 2002).

Maligkris (2017) examined the effect of political speeches on stock returns by using industry-level data and transcripts of presidential candidate speeches during the 2004-2016 period. It is found that political speeches do have an impact on the stock returns, but the magnitude depends on the content of the speeches. Informative speeches affect stock returns and trading volume in a positive way and decrease volatility. However, speeches with a negative linguistic tone have the exact opposite effect. Since during the first half of the candidates' campaigns monetary policy and national security is more discussed than in the second half, the impact of speeches in the first half is bigger than in the second half. Furthermore, high politically sensitive industries have been found to react significantly on speeches that mention government spending for these industries. Low politically sensitive industries did not show any significant results. High politically sensitive industries consisted of defense, shipbuilding and railroad equipment, aircraft, petroleum and natural gas and entertainment. Low politically sensitive industries consisted of insurance, healthcare, retail, beer and liquor and tobacco products.

Previous studies on the U.S. 2016 Presidential elections and stock prices

Since the studies mentioned above are all about the effect of presidential elections on stocks in general, it is also interesting to read which studies have been done on the 2016 U.S. Presidential elections. The paper of Wagner, Zeckhauser and Ziegler (2017) has studied the short-term and longer-term abnormal returns of S&P 500 stocks after the election of Donald Trump. Industries have been distributed based on the 30-industry classification of Fama & French. It has been found that the winners of this election were heavy industry and banking, which is explained by the authors by the promise of Trump to resurrect heavy industry and to deregulate the financial sector. The healthcare and apparel industry seemed to be among the losers. The Affordable Care Act (Obamacare) that Trump would probably change or even dismiss explains the negative abnormal returns of healthcare. Donald Trump's discourage of imports has more likely affected the apparel industry.

Bouiyour and Selmi (2017) studied the effect of Donald Trump's election on eight U.S. industry sectors based on data from the S&P 500 Composite Stock Price Index, the Dow Jones Industrial Average

and the Nasdaq Composite. Health care, oil and gas, real estate, defense, financials and consumer goods and services have been found to be winners. It has to be noted that the above-mentioned study of Wagner, Zeckhauser and Ziegler (2017) presented the health care industry as a loser instead. Utilities and technology have been found to be losers in the ten days after the election.

A separate study on the impact of Donald Trump's election on the major healthcare companies has been done by Blotter (2017). Four subsets of healthcare companies have been taken into account: pharmaceutical companies, health care providers, health insurers and medical device producers. Significant positive abnormal returns have been found for the pharmaceutical, health care and medical devices industries, which implies that the healthcare industry reacted positively on the possible dismissal of the Affordable Care Act. Thus, the outcome of this study is consistent with the study of Bouiyour and Selmi (2017).

Finally, an interesting paper has been written by Wolfers and Zitzewitz (2016), who measured the effect of the first Presidential election debate on stock market prices. Hillary Clinton was the winner of this debate, based on polls that have been taken immediately after the debate. An interesting finding was that the price of S&P 500 December 2016 futures rose with 0.71% in the time during the debate, while Clinton's chances of becoming the 45th President rose with 6% during the same time window. Also energy prices have risen during the debate, but only crude oil and unleaded gasoline were statistically significant. Gold and Silver prices have been found to fall during the debate. Other metals and agricultural commodities did not change.

II. Data and methodology

Data

The different U.S. industries are classified according to the Fama and French 30-industry classification, in which each industry consists of a set of specific four-digit SIC-codes. This classification is obtained from the website of Kenneth R. French (Fama & French, 2017).

The industries are as follows: food (food products); beer (beer and liquor); smoke (tobacco products); games (recreation); books (printing and publishing); household (consumer goods); clothes (apparel); health (healthcare, medical equipment and pharmaceutical products); chemicals; textiles; construction (construction and construction materials); steel (steel works); fabricated products (fabricated products and machinery); electrical equipment; autos (automobiles and trucks); carry (aircraft, ships and railroad equipment); mines (precious metals, non-metallic, and industrial metal mining); coal; oil (petroleum and natural gas); utilities; telecom (communication); services (personal and business services); business equipment; paper (business supplies and shipping containers); transportation; wholesale; retail; meals (restaurants, hotels and motels); finance (banking, insurance, real estate and trading); everything else. The classification "everything else" is excluded from this research.

Financial data is obtained from the Center for Research on Security Prices (CRSP). Lists of all companies at the NYSE/AMEX/NASDAQ including their four-digit SIC-codes were downloaded from this database. The companies are assigned to one of the industries as classified by the 30-industry classification of Fama and French. After distributing the companies over the industries, CRSP calculated the daily portfolio returns for each of the industries, both equal as value weighted. The period chosen is from the 1st of May 2016 until the 31st of December 2016, because CRSP was only able to calculate the portfolio returns until December 2016. The daily return of the S&P500 index and the NYSE/AMEX/NASDAQ value weighted index is also obtained for this period.

Descriptive statistic of the data can be found in Table 1.

Table 1: descriptive statistics of U.S. Industries' returns over the period May 1st and December 31st 2016 based on 170 observations.					
	Autos	**Beer**	**Books**	**Business Equipment**	**Carry**
Mean	0.0005	-0.000579	0.0001	0.001181	0.000741
Median	0.001	-0.00125	-0.0003	0.00135	0.00075
Maximum	0.0313	0.0413	0.0247	0.0234	0.331
Minimum	-0.06	-0.0495	-0.056	-0.0442	-0.0319
Std. Dev.	0.0111	0.012542	0.009557	0.008729	0.008132
Skewness	-1.009447	-0.442259	-1.32602	-0.89594	-0.042442
	Chemicals	**Clothes**	**Coal**	**Construction**	**Electrical Equipment**
Mean	0.000586	-0.000902	0.002081	0.000581	0.000622
Median	0.0008	-0.00045	0.0018	0.0011	0.0007
Maximum	0.0255	0.0244	0.084	0.0243	0.027
Minimum	-0.0436	-0.0424	-0.0553	-0.0449	-0.0465
Std. Dev.	0.00879	0.009428	0.020646	0.009507	0.008557
Skewness	-1.001286	-0.683203	0.184532	-0.885874	-1.004262
	Fabricated Products	**Finance**	**Food**	**Games**	**Health**
Mean	0.000826	0.00077	0.000312	0.00079	0.0001
Median	0.0009	0.00115	0.000650	0.00095	0.0005
Maximum	0.0255	0.0206	0.0289	0.0207	0.0397
Minimum	-0.0512	-0.0409	-0.0314	-0.0436	-0.0285
Std. Dev.	0.009773	0.007569	0.007622	0.008179	0.008591
Skewness	-0.939613	-1.018145	-0.61226	-1.067071	0.275534
	Household	**Meals**	**Mines**	**Oil**	**Paper**
Mean	0.0001	0.000598	0.000392	0.000669	0.000461
Median	0.0001	0.0012	0.00145	0.0003	0.00095
Maximum	0.0233	0.025	0.0497	0.0527	0.0218
Minimum	-0.373	-0.0391	-0.428	-0.037	-0.0419
Std. Dev.	0.007259	0.008085	0.014715	0.012606	0.008076
Skewness	-0.716961	-0.882471	-0.29845	0.26657	-1.100549
	Retail	**Services**	**Smoke**	**Steel**	**Telecom**
Mean	0.000162	0.000636	0.000384	0.000963	0.000495
Median	0.00075	0.0008	0.0005	0.0012	0.0006
Maximum	0.0191	0.0254	0.0385	0.0375	0.0197
Minimum	-0.237	-0.439	-0.041	-0.0525	-0.0314
Std. Dev.	0.007086	0.00847	0.009169	0.012313	0.007126
Skewness	-0.374312	-0.775231	-0.53349	-0.485285	-0.686446
	Textiles	**Transportation**	**Utilities**	**Wholesale**	**S&P 500**
Mean	-0.00023	0.000804	0.000582	0.00029	0.000581
Median	0.0009	0.0015	0.0013	0.0003	0.0002
Maximum	0.0359	0.0277	0.0205	0.0171	0.0222
Minimum	-0.0575	-0.0507	-0.0334	-0.0309	-0.0357
Std. Dev.	0.012731	0.009659	0.008372	0.006296	0.006902
Skewness	-0.925186	-1.05725	-0.5932	-0.764685	-0.76165

Furthermore, information about the general policy promises of Hillary Clinton is obtained from her campaign website (Clinton, 2015). Since Donald Trump's policy promises cannot be found on his website, an article about his 76 promises of the Washington Post is used (Johnson, 2016). The transcripts and videos of the three Presidential election debates were found on respectively the website of the Washington Post (Blake, 2016), the New York Times (Unknown, 2016) and Politico (Staff, 2016). The first Presidential election debate took place on September 26th, the second on October 9th, the third on October 19th and Election Day took place on November 8th.

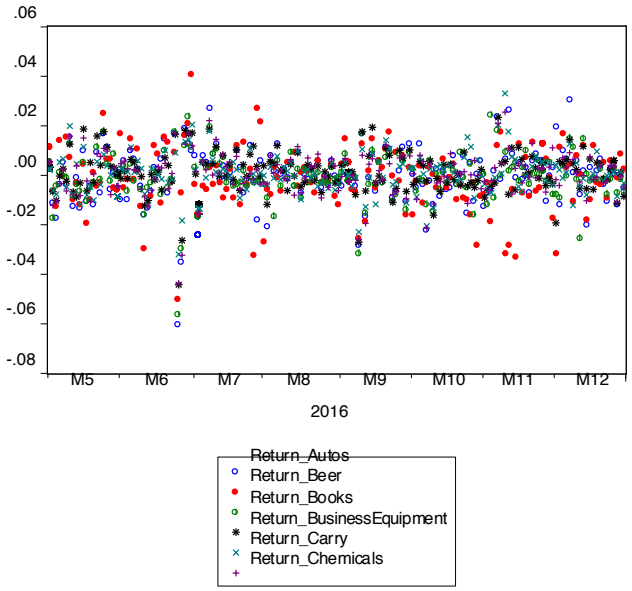
Data on who led the polls through the period September 28th to November 8th, , which includes polls after the three debates as well, is obtained from the CBS News/New York Times, CNN/ORC and ABC News/Washington Post polls. All polls suggested Hillary Clinton being in the lead over the whole period. See Appendix A for an overview of the chances of both candidates based on these polls.

Also, the amounts of industry campaign contributions for each candidate have been used in this paper. The data is found on the website of Open Secrets and can be viewed in Appendix B. It has to be noted that Hillary Clinton received more than six times the amount of donations than Donald Trump received. As some of the industries are not distributed according to the 30-industry classification, it is chosen to use the food industry as proxy for the agribusiness sector, the services industry as proxy for the lawyers and lobbyists industry, the utilities industry for the energy and natural resources industry and the equal weighted average of the electrical equipment and telecom industry for the communications/electronics industry.

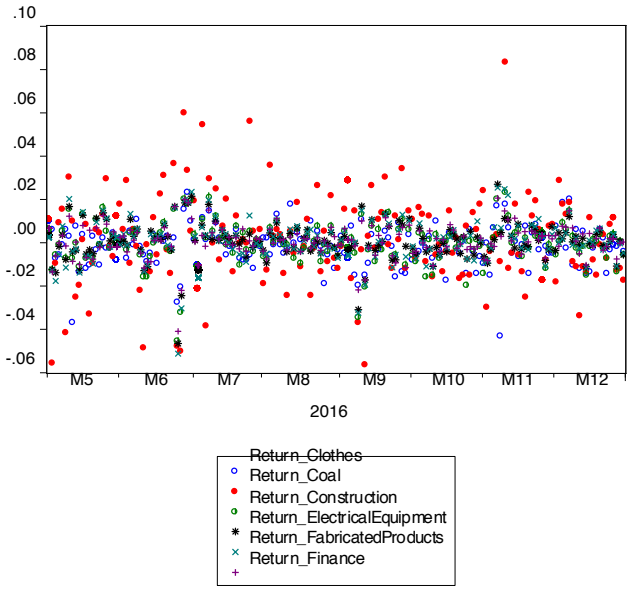
Methodology

Firstly, the data has been tested on outliers by creating dot plots. No outliers have been found in the data. A notable phenomenon while looking at the dot plots is the value of the returns on the 24th of June, which are quite lower than on the other days of the period for most of the industries. This date marks the day after the outcome of the Brexit Referendum in Great Britain, which explains the low returns in most of the industries. Because the values are not extraordinary low, it has been chosen to not exclude these values in this research. Graph 1, 2, 3, 4 and 5 show the dot plots of the value weighted returns of the industries.

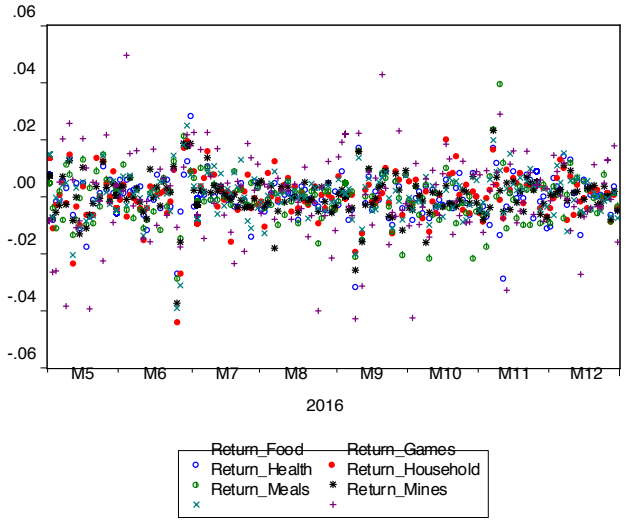
Graph 1: dot plot of the auto, beer, books, business equipment, carry and chemicals industry.



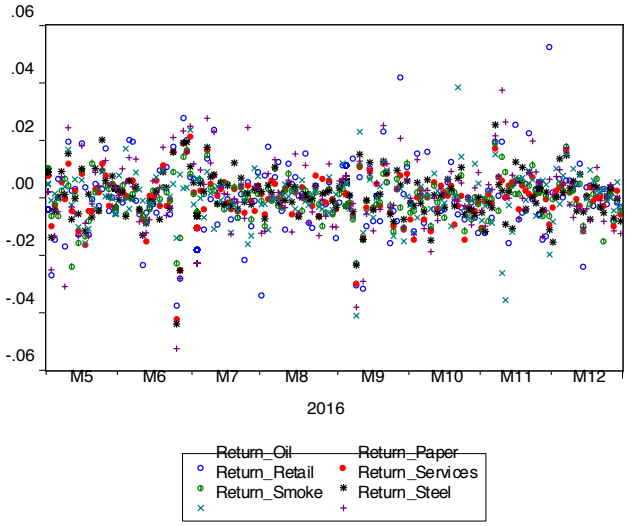
Graph 2: dot plot of the clothes, coal, construction, electrical equipment, fabricated products and finance industry.



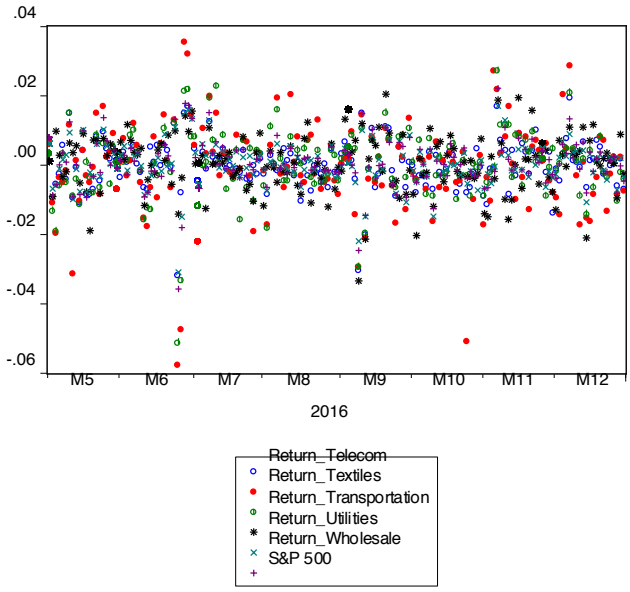
Graph 3: dot plot of the food, health, meals, games, household and mine industry.



Graph 4: dot plot of the oil, retail, smoke, paper, services and steel industry.



Graph 5: dot plot of the telecom, textiles, transportation, utilities and wholesale industry and the S&P500.



Furthermore, dummy variables were created for the following events in Eviews: first Presidential election debate, second Presidential election debate, third Presidential election debate and Election Day. As mentioned in the data section, the first Presidential election debate took place on September 26th, the second Presidential election debate took place on October 9th and the third Presidential election debate took place on October 19th. Election Day took place on November 8th. The dummy variables were created for the period of one trading day after the events and for the period of three trading days after the events since all of the events took place in the evening and thus the stock markets were closed during the event. Each dummy variable had the value of 1 during the event window and 0 otherwise.

Table 2 gives an overview of the dummy variables and their time windows.

Table 2: overview of dummy variables and their time windows.				
	First Presidential election debate	**Second Presidential election debate**	**Third Presidential election debate**	**Election Day**
Time window 1: [0,+3]	September 27th - September 29th	October 10th - October 12th	October 20th - October 24th	November 9th - November 13th
Time window 2: [0,+1]	September 27th	October 10th	October 20th	November 9th

After creating the dummy variables the value-weighted returns of the industries were regressed over the dummy variables with a constant and the return of the S&P 500 included as control variable. This has been done for both the one-day event window and the three-day event window. Thus, per industry two regressions were made:

return_industry *[0,+3] = c(1) + c(2)****S&P_500*** *+ c(3)****dummy_firstdebate*** *+ c(4)****dummy_seconddebate*** *+ c(5)****dummy_thirddebate*** *+ c(6)****dummy_electionday***

return_industry *[0,+1] = c(1) + c(2)****S&P_500*** *+ c(3)****dummy_firstdebate*** *+ c(4)****dummy_seconddebate*** *+ c(5)****dummy_thirddebate*** *+ c(6)****dummy_electionday***

Also, the effect of industry-level campaign contributions on the abnormal returns (AR) of the industry is measured. Abnormal returns are calculated using the CAPM model with the one-year Treasury bill rate as proxy for the risk-free rate. Campaign contributions are defined as the percentage of the total campaign contributions of a specific industry to Donald Trump. A dummy is made for the three days before and the three days after Election Day. This led to the following regressions per industry:

AR_industry *[0,+3] = c(1) + c(2)****S&P_500*** *+ c(3)****donation%_Trump*dummy_afterelection***

AR_industry *[-3,0] = c(1) + c(2)****S&P_500*** *+ c(3)****donation%_Trump*dummy_beforeelection***

A correlogram for each variable tested the data for autocorrelation on 5% significance level. Also, all regressions have been tested for heteroskedasticity on 5% significance level by performing a White test. If hetereoskedasticity and/or autocorrelation were found in a regression, it has been corrected by using the HAC Newey West method for the specific regression instead of the Ordinary Least Squares method.

After regressing the returns of each industry on the mentioned dummies, explanations for the significant results were tried to give by linking the policy promises of the candidates, the corporate campaign contributions and the topics mentioned during the debates to the significant results.

III. Results

The results per time window and per coefficient will be discussed in this section.

First Presidential election debate

The first Presidential election debate took place on September 26th 2016. The topics discussed during this debate were focused on economy and job creation, trade, federal deficit, race relations and policing, war on terror and foreign policy of the United States. According to several polls, Hillary Clinton came out as the winner of this debate.

Refer to table 3 for an overview of the results of the first Presidential election debate. A summary of the results and explanation about the most important findings will be given here below.

Time window 1: [0,+3]

The first presidential election debate had a significant effect on only a few industries in the [0,+3] time window: coal, electrical equipment, games, business equipment oil, services, smoke and health. Fifteen out of the 29 industries reacted positively on the first Presidential election debate, fourteen of them reacted negatively on the same debate. Out of the significant results coal, electrical equipment, games, business equipment, oil and services reacted positively on the first Presidential election debate. Smoke and health reacted negatively on the same debate. The industry that experienced the biggest significant positive effect is the coal industry with a follow up of electrical equipment. The return in the three days after the first Presidential election debate was 0.0064 higher for the coal industry and 0.0047 for the electrical equipment industry than at all the other days in the measured period. The biggest significant negative effect was experienced by the health industry followed by the smoke industry. The health industry experienced a 0.005 lower return and the smoke industry a 0.0037 lower return in the three days after the first Presidential election debate than at all the other days in the measured period.

Time window 2: [0,+1]

On the first day after the first Presidential election debate only the utilities industry has experienced a significant effect on the returns. The returns were 0.015 lower than at all the other days of the measured period. The two winners of the [0,+3] time window still had positive returns, but the returns were not significant. The biggest loser of the [0,+3] period, health, even experienced a positive return on the day of the first Presidential election debate. The smoke industry had negative returns, but the negative returns were smaller than in the [0,+3] window and not significant.

Possible explanations

One of the most significant findings after the first Presidential election debate is the negative return in the health industry. This can possibly be explained by Clinton's criticism on the high prices in the pharmaceutical industry. She called for governmental price changing regulation for pharmaceutical goods. While keeping in mind that drug prices have more than doubled in price since 2009, this could explain the negative reaction in this sector on Clinton's win in this debate and on the increased possibility of Clinton's win during the elections. Also, this result is in line with the studies of Bouiyour and Selmi (2017) and Blotter (2017), who both found significant positive results for the health industry after Trump's win.

A more interesting finding is the fact that oil reacted significantly positive on the outcome of the debate, while utilities reacted significantly negative. Since Clinton mentioned increasing investment in renewable energy and reducing carbon emissions as one of her policy subjects during the debate, it was not expected that the oil industry would react positively on the debate outcome. However, the positive significant reaction of oil is in line with the study of Wolfers and Zitzewitz (2016), who also found a significant rise in oil prices after the first Presidential election debate. Hillary Clinton mentioning investing renewable energy as one of her policy promises could explain the positive reaction of the electrical equipment. Clinton mentioned investing in modern electric grids, which creates a lot of jobs and thus a new economic activity. This explanation seems legit, since Knight (2006) also found a positive reaction in renewable energy sources as Gore led the polls during the 2000 U.S. Presidential elections.

One of the biggest contributors of Hillary Clinton's campaign is the electronics sector, which can explain the significant positive reaction of the electrical equipment industry on this debate's outcome. As learned by the studies of Cooper, Gulen and Ovtchinnikov (2010) and Shon (2010), corporate contributions do have an effect on stock prices. Also, later in this paper it is showed that the campaign contributions of the electrical equipment industry led to a positive effect on the abnormal returns of that industry in the three days before Election Day.

Table 3: Average difference of U.S. Industries' portfolio returns in the three days and one day after the first Presidential election debate compared with the average of other days of the measured period. The dummy variable had a value of 1 in the three days or one day after the debate and a value of 0 on all the other days between May 1st and December 31st 2016.

=10% significance, **=5% significance, ***=1% significance

	[0,+3]		[0,+1]	
	Value	Probability	Value	Probability
Auto	0,0005	0.7173 (0.3626)	-0,0064	0.2990 (-1.0419)
Beer	-0,003	0.6045 (-0.5190)	-0,0079	0.4242 (-0.8011)
Book	0,0004	0.9019 (0.1235)	0,0019	0.7177 (0.3621)
Business Equipment	**0,0019**	**0.0000(4.2095)*** **	0,002	0.6040 (0.5197)
Carry	-0,0018	0.5120 (-0.6572)	-0,00244	0.6110 (-0.5096)
Chemicals	0,0011	0.6878 (0.4026)	0	0.9945 (0.007)
Clothes	-0,0045	0.3038 (-1.0317)	0,0061	0.4185 (0.8110)
Coal	**0,0064**	**0.0865 (1.7242)***	-0,0092	0.5837 (-0.5491)
Construction	0,0022	0.3149 (-1.0081)	-0,001	0.7937 (-0.262)
Electrical Equipment	**0,0047**	**0.0094 (2.6266)*** **	0,0026	0.4108 (0.8246)
Fabricated Products	0,0032	0.2062 (1.2692)	-0,0022	0.6320 (-0.4799)
Finance	-0,0012	0.3793 (-0.8815)	-0,0031	0.2120 (-1.2531)
Food	0,0012	0.1325 (1.51194)	0	0.9962 (-0.0047)
Games	**0,0022**	**0.0000 (5.4821)*** **	0,0025	0.5815 (0.5523)
Health	**-0,005**	**0.0047 (-2.8688)*** **	0,0006	0.9043 (0.1204)
Household	-0,0009	0.6818 (-0.4108)	0,0024	0.5015 (0.6736)
Meals	-0,0034	0.2048 (-1.2731)	-0,0043	0.3498 (-0.9377)
Mines	0,0031	0.6925 (0.3962)	-0,013	0.3284 (-0.9803)
Oil	**0,00112**	**0.0465 (2.0064)** **	-0,0156	0.1077 (-1.6175)
Paper	-0,0005	0.8002 (-0.2536)	-0,0035	0.3171 (-1.0036)
Retail	-0,0026	0.2278 (-1.2106)	0,0014	0.7172 (0.3629)
Services	**0,0011**	**0.0316 (2.1675)** **	0,0019	0.5081 (0.6632)
Smoke	**-0,0037**	**0.0056 (-2.8063)*** **	-0,0014	0.8596 (-0.1772)
Steel	0,0033	0.4176 (0.8126)	-0,0066	0.3561 (-0.9254)
Telecom	-0,0002	0.7747 (-0.2867)	-0,0002	0.9517 (-0.0607)
Textiles	-0,0016	0.7309 (-0.3446)	-0,0031	0.6989 (-0.3874)
Transportation	0,0036	0.1850 (1.3312)	0,0002	0.9692 (0.0387)
Utilities	-0,0042	0.1022 (-1.6434)	**-0,015**	**0.0000 (-20.0097)*** **
Wholesale	-0,0001	0.3259 (-0.9854)	0,0014	0.3862 (0.8688)

Second Presidential election debate

The second Presidential election debate took place on October 9th 2016. Topics discussed during this debate included the Affordable Care Act, Islamophobia and Syrian refugees, Wikilieaks and taxes, war in Syria, leadership, Supreme Court and energy policy. Again, Hillary Clinton came out as the winner of this debate.

Refer to table 4 for an overview of the results of the second Presidential election debate. A summary of the results and explanation about the most important findings will be given here below.

Time window 1: [0,+3]

The second Presidential election debate had a significant effect on only a few industries in the [0,+3] time window: business equipment, food, games, health, household, smoke, telecom and utilities. Seventeen out of the 29 industries reacted positively on the second Presidential election debate; twelve of them reacted negatively on the same debate. Out of the significant results food, smoke, telecom and utilities reacted positively on the second Presidential election debate. Business equipment, games, health and household reacted negatively on the same debate. The industry that experienced the biggest significant positive effect is the smoke industry with a follow up of utilities and telecom. The return in the three days after the first Presidential election debate was 0.003 higher for the smoke industry, 0.0026 for the utilities industry and 0.0022 for the telecom industry than at all the other days in the measured period. The biggest significant negative effect was experienced by the health industry followed by the household industry. The health industry experienced a 0.0049 lower return and the household industry a 0.0047 lower return in the three days after the first Presidential election debate than at all the other days in the measured period.

Time window 2: [0,+1]

On the first day after the first Presidential election debate only the electrical equipment, fabricated products, household and utilities have experienced a significant effect on the returns. The biggest loser in this period was the household industry, with returns 0.02 lower than usually. The returns of fabricated products were 0.0086 lower than at all the other days of the measured period with a close follow up of electrical equipment with 0.0081 lower returns. Also in this period the utilities industry was a winner, with 00067 higher returns on the day after the second Presidential election debate. The biggest winner of the [0,+3] period, the smoke industry, experienced 0.0028 lower returns on the day after the debate, which is quite strange. However, this variable is not significant in the [0,+1] time window, thus there should be another reason for the low returns.

Possible explanations

Again, a significant negative reaction is found in the health industry. This can be explained by the same arguments given earlier in this paper. Also, a part of the debate discussion was about the healthcare sector, where Clinton promised once again to not give back the health insurance to the insurance and drug companies but to regulate it by the government. Since both of the first debates result in a significant negative reaction of the health industry, this study is not in line with the statement of Maligkris (2017), who defined the healthcare industry as a low politically sensitive sector and thus a sector that should not react on political speeches. However, the healthcare industry was an important topic during the U.S. 2016 elections, which can explain the difference in findings.

Hillary Clinton also mentioned the utilities industry during the debate. Keeping the energy-independence of the U.S. upon the Middle East has been an important point for her, which would create new jobs and businesses in the U.S.' utilities industry. The importance of the transition of producing own natural gas, which leads to more renewable fuels, has been one of her key policy points. These points could explain the significant positive reaction of the utilities industry after the debate.

Table 4: Average difference of U.S. Industries' portfolio returns in the three days and one day after the second Presidential election debate compared with the average of other days of the measured period. The dummy variable had a value of 1 in the three days or one day after the debate and a value of 0 on all the other days between May 1st and December 31st 2016.

=10% significance, **=5% significance, ***=1% significance

	[0,+3]		[0,+1]	
	Value	Probability	Value	Probability
Auto	-0,0001	0.9744 (-0.0321)	-0,0079	0.2010 (-1.294)
Beer	0,0032	0.5742 (0.5644)	-0,0005	0.9637 (-0.0457)
Book	0,0012	0.6924 (0.3963)	0,0021	0.7005 (0.3854)
Business Equipment	**-0,0019**	**0.0019 (-3.1584)*** **	0	0.9990 (-0.0013)
Carry	-0,0004	0.8934 (-0.1342)	0,0017	0.7314 (-0.3438)
Chemicals	-0,0001	0.7594 (-0.3068)	-0,0003	0.9436 (-0.0709)
Clothes	0,0061	0.1631 (1.4009)	0,0016	0.8283 (0.2172)
Coal	0,0006	0.8028 (0.2502)	0,0052	0.7580 (0.3087)
Construction	0,0006	0.7858 (0.2722)	-0,0035	0.3545 (-0.9284)
Electrical Equipment	-0,0026	0.1492 (-1.4491)	**-0,0081**	**0.0109 (-2.5745)****
Fabricated Products	-0,001	0.6910 (-0.3982)	**-0,0086**	**0.0609 (-1.8872)***
Finance	-0,0026	0.3883 (0.8651)	0,0006	0.8193 (0.2288)
Food	**0,0019**	**0.0005 (3.5535)*** **	0,0003	0.9515 (0.061)
Games	**-0,0014**	**0.0096 (-2.6210)*** **	-0,0024	0.5924 (-0.5364)
Health	**-0,0049**	**0.0003 (-3.6763)*** **	0,001	0.8368 (0.2064)
Household	**-0,0044**	**0.0536 (-1.9440)***	**-0,02**	**0.0000 (-5.5769)*** **
Meals	0,0025	0.3484 (0.9405)	0,0025	0.5934 (0.535)
Mines	0,0028	0.7211 (0.3576)	0,0021	0.8766 (0.1555)
Oil	0,0034	0.5394 (0.6150)	0,0107	0.2691 (1.109)
Paper	0,0008	0.7016 (0.3838)	-0,0042	0.2324 (-1.1986)
Retail	0,0011	0.6164 (0.5020)	-0,0027	0.4760 (-0.7144)
Services	0,0001	0.8358 (0.2075)	0,001	0.7443 (0.3268)
Smoke	**0,003**	**0.0856 (1.7293)***	-0,0028	0.7520 (-0.3524)
Steel	-0,0021	0.6103 (-0.5106)	-0,004	0.5776 (-0.5580)
Telecom	**0,0022**	**0.0002 (3.8242)*** **	-0,0001	0.9766 (-0.0294)
Textiles	0,0024	0.5972 (0.5294)	-0,0032	0.6850 (-0.4064)
Transportation	0,0015	0.5795 (0.5552)	0,0021	0.6511 (0.5631)
Utilities	**0,0026**	**0.0228 (2.2977)****	**0,0067**	**0.0000 (11.5121)*** **
Wholesale	-0,0007	0.4590 (-0.7409)	0,0004	0.7871 (0.2705)

Third Presidential election debate

Refer to table 5 for an overview of the results of the third Presidential election debate. An explanation about the results will be given here below.

Time window 1: [0,+3]

Twelve out of 29 industries experienced higher returns in the three days after the third Presidential election debate and seventeen industries experienced lower returns. Only eight industries had a significant difference in returns in the three days after the debate in comparison with all the other days of the measured period. Out of the significant results the third Presidential election debate had a positive effect on the games, services and smoke industry and a negative effect on the coal, paper, telecom and utilities industry. The biggest significant winner was the smoke industry and the biggest loser the coal industry with a close follow up of telecom and paper. The returns were on average respectively 0.064, 0.0059 and 00.005 lower than on all the other days of the measured period.

Time window 2: [0,+1]

Only four significant results have been found on the first day after the third Presidential election debate. The games, telecom, transportation and utilities industries showed significant results, with games showing a positive effect and telecom, transportation and utilities showing a negative effect. The average returns of the game industry were 0.001 higher on this day. The biggest loser was the transportation industry, with 0.0078 lower returns than usually. Telecom showed 0.0066 and utilities 0.0011 lower returns after the debate than on the other days of the measured period.

Possible explanations

During the discussion about the economy of the U.S. Hillary Clinton again promised new jobs in clean energy, not only to fight climate change but also to create new opportunities and businesses. This can again explain the significant negative reactions of the utilities and coal industry. Again, this is in line with the study of the 2000 U.S. Presidential elections, where alternative energy companies performed much better with Gore in the leading since Gore publicly supported alternative energy sources (Knight, 2006).

The negative reactions of the paper and telecom industries are hard to explain. The same applies to the significant positive reactions of the games, services and smoke industries.

Table 5: Average difference of U.S. Industries' portfolio returns in the three days and one day after the third Presidential election debate compared with the average of other days of the measured period. The dummy variable had a value of 1 in the three days or one day after the debate and a value of 0 on all the other days between May 1st and December 31st 2016.

=10% significance, **=5% significance, ***=1% significance

	[0,+3]		[0,+1]	
	Value	**Probability**	**Value**	**Probability**
Auto	0,0001	0.8506 (0.1886)	-0,0015	0.8087 (-0.2425)
Beer	-0,0047	0.4978 (-0.6795)	-0,0067	0.4984 (-0.6785)
Book	0,0047	0.2082 (1.2634)	-0.0008	0.8789 (-0.1526)
Business Equipment	-0,0016	0.1449 (-1.4647)	0,0017	0.6687 (0.4287)
Carry	-0,0015	0.6514 (-0.4526)	-0,0012	0.8112 (-0.2393)
Chemicals	0,0016	0.6261 (0.4882)	0,0027	0.5405 (0.6134)
Clothes	0,0014	0.7978 (0.2566)	0,0057	0.4464 (0.7633)
Coal	**-0,0064**	**0.0819 (-1.7507)***	0,0041	0.8076 (0.244)
Construction	0,0003	0.9127 (0.1100)	0,0002	0.9545 (0.0572)
Electrical Equipment	-0,0008	0.7057 (-0.3783)	0,0032	0.3049 (1.0291)
Fabricated Products	-0,0008	0.7876 (-0.2699)	-0,0012	0.7928 (-0.2632)
Finance	-0,0008	0.5073 (-0.6646)	-0,0014	0.5642 (-0.5778)
Food	0,0003	0.7443 (0.3267)	-0,0027	0.5831 (-0.55)
Games	**0,0121**	**0.0000 (15.3827)*****	**0,001**	**0.0278 (2.2197)****
Health	-0,0009	0.7122 (-0.3696)	0,007	0.1707 (1.3761)
Household	-0,0022	0.4269 (-0.7965)	-0,001	0.7746 (-0.2868)
Meals	0,0014	0.6696 (0.4274)	-0,0025	0.5858 (-0.5459)
Mines	-0,0067	0.4749 (-0.7161)	-0,0118	0.3712 (-0.8966)
Oil	-0,0024	0.7212 (-0.3574)	0,0002	0.9856 (0.0181)
Paper	**-0,005**	**0.0456 (-2.014)****	-0,0076	0.0302 (-2.187)
Retail	0,0021	0.4310 (0.7894)	0,0035	0.3532 (0.931)
Services	**0,0026**	**0.0432 (2.0378)****	-0,0013	0.6535 (-0.4497)
Smoke	**0,02**	**0.0009 (3.3715)*****	0,0016	0.8434 (0.1978)
Steel	0,0002	0.9760 (0.0302)	0,0013	0.8580 (0.1792)
Telecom	**-0,0059**	**0.0000 (-14.367)*****	**-0,0066**	**0.0625 (-1.8752)***
Textiles	-0,0024	0.6732 (-0.4225)	-0,0015	0.8511 (-0.1880)
Transportation	-0,0053	0.1148 (-1.5853)	**-0,0078**	**0.0972 (-1.6682)***
Utilities	**-0,0024**	**0.0002 (-3.7773)*****	**-0,0011**	**0.0589 (-1.902)***
Wholesale	-0,0005	0.6584 (-0.443)	0,0018	0.2543 (1.1439)

Election Day

Refer to table 6 for an overview of the results of Election Day. An explanation about the results will be given here below.

Time window 1: [0,+3]

Election Day had a significant effect on a lot of the industries in the three days after the election outcome. Sixteen industries showed positive returns during this time period and thirteen industries showed negative returns. The following industries showed significant results: auto, beer, carry, chemicals, construction, electrical equipment, fabricated products, finance, food, health, retail, services, smoke, steel, utilities and wholesale. Out of the significant results steel and carry were the biggest winners, with returns respectively 0.0161 and 0.016 higher than on average during the measured period. Other significant winners were the auto, chemicals, construction, electrical equipment, fabricated products, finance, health, retail and wholesale industries. In contrast, smoke and beer were the biggest significant losers, with returns respectively 0.0248 and 0.0241 lower than on average. Other significant losers were the food, services and utilities industries.

It has to be noted that one of the significant biggest winners in the three days after Election Day, the carry industry, showed negative returns in the three days after each Presidential election debate. Also the finance industry and the wholesale industry showed positive returns after Election Day and negative returns after all of the Election Debates. The same is found for the health industry, with even significant negative returns after the first and the second Presidential election debate. One of the biggest losers, the smoke industry, showed significant positive returns in the three days after the second and third Presidential election debate. The food industry also shows negative returns after Election Day and positive returns, with a significant one after second debate, in the days after the election debates. The same is found for the services industry, with significant negative returns after the first and third Presidential election debate.

Time window: [0,+1]

Out of the 29 industries thirteen got positive returns on the day after the election outcome and sixteen got negative returns. Positive significant returns are obtained by the carry, chemicals, coal, construction, fabricated products, health, steel and wholesale industries. Negative significant returns are obtained by the beer, business equipment, food, games, household, services, smoke and utilities industries. The biggest significant winner on the day after the election outcome was the coal industry, with on average returns 0.066 higher than on the other days of the measured period. The biggest significant loser was the smoke industry with 0.0337 lower returns on the day after the election outcome.

Business equipment showed positive returns on the day after each election debate. However, on the day after Election Day it showed significant negative returns. The exact opposite pattern can be found in the fabricated products that show significant positive returns on the day after Election Day and negative returns in the days after the Election Debates. After the second debate the returns were even significant negative.

Possible explanations

One of the policy promises of Hillary Clinton was introducing a fair tax system that would make sure that corporations, wealthy citizens and Wall Street would pay their fair share of taxes. While Donald Trump promised to cut taxes where the top 0.1 percent would receive more tax benefits than the bottom 60 percent of taxpayers combined, it is no surprise that the finance industry reacted significantly positive on the election outcome. This can also explain the not significant negative reaction after the three Presidential election debates after which Hillary Clinton came out as a winner, even if the finance industry was one of her main campaign donators. This is also the finding and explanation that is given in the paper of Wagner, Zeckhauser and Ziegler (2017).

Since Donald Trump promised to repeal Affordable Care Act and replace it with a marketwise alternative where insurance companies will have the power in the health industry, the significant positive reaction of the health industry can be explained. Hillary Clinton promised the exact opposite by installing more governmental regulation and thus significant negative reactions have been found after the Presidential debates. The fact that healthcare was one of the main topic issues during the 2016 U.S. elections also helps in the explanation. It is interesting that Wagner, Zeckhauser and Ziegler (2017) found a negative reaction of the health industry, while previous research of Blotter (2017) and Bouiyour and Selmi (2017) found a positive effect like in this paper.

Another promise Donald Trump made was creating more American manufacturing jobs by for example renegotiating NAFTA. This can explain the significant positive reaction of the construction and fabricated products industry, which is in line with the findings and explanations of Wagner, Zeckhauser and Ziegler (2017). The fact that Hillary Clinton's climate change promise would not make it through could have also helped these industries and the chemicals and electrical equipment industry.

Wholesale and retail are found to have reacted positively on the election outcome, which is in line with the findings of Bouiyour and Selmi (2017) seeing a positive reaction in the consumer goods industry.

Table 6: Average difference of U.S. Industries' portfolio returns in the three days and one day after Election Day compared with the average of other days of the measured period. The dummy variable had a value of 1 in the three days or one day after the debate and a value of 0 on all the other days between May 1st and December 31st 2016.

=10% significance, **=5% significance, ***=1% significance

	[0,+3]		[0,+1]	
	Value	**Probability**	**Value**	**Probability**
Auto	**0,001**	**0.0083 (2.6702)*** **	-0,0078	0.2116 (-1.254)
Beer	**-0,0248**	**0.0000 (-4.3454)*** **	**-0,0427**	**0.0000 (-4.3195)*** **
Book	0,0017	0.5830 (0.5501)	-0.0021	0.6991 (-0.3872)
Business Equipment	-0,0018	0.5750 (-0.5619)	**-0,0074**	**0.0573 (-1.9142)***
Carry	**0,016**	**0.0000 (5.9439)*** **	**0,0232**	**0.0000 (4.8131)*** **
Chemicals	**0,0057**	**0.0313 (2.1721)** **	**0,0139**	**0.0023 (3.0991)*** **
Clothes	0,0057	0.1884 (1.3209)	0,011	0.1448 (1.4653)
Coal	0,016	0.1649 (1.3950)	**0,066**	**0.0001 (3.925)*** **
Construction	**0,0083**	**0.0001(3.8822)*** **	**0,0108**	**0.0046 (2.8756)*** **
Electrical Equipment	**0,0041**	**0.0236 (2.2843)** **	-0,0014	0.6634 (-0.436)
Fabricated Products	**0,0123**	**0.0000 (4.8182)*** **	**0,0112**	**0.0160 (2.4346)** **
Finance	**0,0041**	**0.0007 (3.4461)*** **	0,0033	0.1938 (1.3048)
Food	**-0,0181**	**0.0000 (-4.9388)*** **	**-0,0225**	**0.0000 (-4.6501)*** **
Games	-0,003	0.3978 (-0.8477)	**-0,0116**	**0.0112 (-2.5646)** **
Health	**0,0109**	**0.0660 (1.8510)***	**0,0305**	**0.0000 (5.988)*** **
Household	-0,0024	0.2863 (-1.0697)	**-0,0074**	**0.0406 (-2.0644)** **
Meals	-0,0015	0.5714 (-0.5671)	-0,0014	0.7629 (-0.3022)
Mines	-0,0074	0.3399 (-0.9572)	0,0188	0.1598 (1.4123)
Oil	-0,0026	0.6409 (-0.4673)	0,0069	0.4767 (0.7133)
Paper	0,0001	0.9758 (0.0304)	-0,0051	0.1488 (-1.4508)
Retail	**0,006**	**0.0059 (2.7914)*** **	0,0055	0.1532 (1.4351)
Services	**-0,0059**	**0.0088 (-2.6523)*** **	**-0,0102**	**0.0006 (-3.4834)*** **
Smoke	**-0,0241**	**0.0000 (-4.6181)*** **	**-0,0337**	**0.0000 (-4.2634)*** **
Steel	**0,0161**	**0.0001 (3.9361)*** **	**0,022**	**0.0027 (0.022)*** **
Telecom	-0,0028	0.1527 (-1.4368)	-0,0051	0.1494 (-1.4485)
Textiles	0,0046	0.3121 (1.0139)	-0,0066	0.4047 (-0.8354)
Transportation	0,0024	0.3758 (0.8882)	-0,0016	0.7383 (-0.3347)
Utilities	**-0,0151**	**0.0000 (-9.9175)*** **	**-0,0186**	**0.0000 (-15.7653)*** **
Wholesale	**0,0017**	**0.0624 (1.8765)***	**0,0037**	**0.0209 (2.3321)** **

Campaign contributions

Table 7 shows the results of the effect of industry-level campaign contributions on the abnormal returns of that industry. An overview of the campaign contributions can be found in Appendix B. It has to be noted that only the food industry contributed more to Donald Trump than to Hillary Clinton. However, the contribution did not have a positive effect on the abnormal returns of this industry at all. The contribution led to abnormal returns that were significantly 3.69% lower than at all the other days of the measured period. During the three days before the election outcome, the contribution even had a positive effect on the abnormal return, but this effect was not significant.

The second relative biggest contributor to Donald Trump was the transportation industry. This significant positive effect of the contribution fell after Election Day from 1.9% to 0.6%. Another industry that contributed a lot of their total contribution to Donald Trump was the construction industry, which had a significant positive effect of 2% on the abnormal returns of that industry during the three days after Election Day. Also, the utilities industry contributed a lot of their total contributions to Donald Trump. However, just like the food industry, the donations had a significant negative effect of 3.8% on the abnormal returns of the industry.

The contributions of the rest of the industries, except for the services industry, had a positive effect on the abnormal returns after the election outcome even when they contributed a lot of their total contributions to Hillary Clinton.

Even though significant results are found for the campaign contributions, there seems to be no pattern in the difference of effects before and after Election Day.

Table 7: Effect of the relative industry-level campaign contributions to the Presidential candidates on the abnormal returns of the industries in the three days before and the three days after Election Day in percentages.

**** = 10% probability, ** = 5% probability, *** = 1% probability***

		[-3,0]		[0,+3]	
Industry	**Percentage spent on Trump**	**Value**	**Probability**	**Value**	**Probability**
Finance	7.23%	-1.4358	-0.8811 (0.3795)	**1.2304**	**6.9169 (0.0000)*****
Health	15,00%	1.0374	0.3392 (0.7349)	**7.5856**	**1.8994 (0.0592)***
Construction	41.72%	-6.15E-08	-1.4261 (0.1557)	**2**	**5.263 (0.0000)*****
Food	52.79%	1.1825	1.4566 (0.1471)	**-3.69**	**-5.6667 (0.0000)*****
Services	4.38%	2.919	1.0128 (0.3126)	**-12.761**	**-2.7216 (0.0072)*****
Utilities	39,00%	1.122	0.8359 (0.4044)	**-3.7564**	**-3.6088 (0.0004)*****
Transportation	42.55%	**1.1859**	**3.3746 (0.0009)*****	**0.6313**	**2.189 (0.0300)****
Telecom/electrical equipment	2.51%	**9.8807**	**2.0229 (0.0447)****	4.435	0.9432 (0.3469)

IV. Conclusion

This paper studied the portfolio returns of 29 U.S. industries during the 2016 U.S. Presidential elections. Reactions after the three Presidential election debates and the Election Day outcome have been analyzed. The most important finding of this paper came from the healthcare industry. As the discussion about Barack Obama's Affordable Care Act was one of the most important topics during the 2016 U.S. elections, it is no surprise that this industry showed the most interesting results. The significant negative reactions of the health industry after both the first and second Presidential election debate and the significant positive reaction after Election Day were in line with the expectations and findings of existing literature. Existing literature of Blotter (2017) and Bouiyour and Selmi (2017) confirmed this finding. Since Hillary Clinton promised in each debate to keep the Affordable Care Act and promised to not give insurance and pharmaceutical companies the power in the health care industry, the negative reactions after the debates are explained. However, Maligkris (2017) assigned the healthcare industry to the low politically sensitive industries that should not react on political speeches. The importance of the healthcare discussion during last election period could explain the different finding in this paper. Furthermore, the promise of Donald Trump to deregulate the healthcare industry and to dismiss the Affordable Care Act explains the positive reactions after the Election Day outcome.

Furthermore, the services industry came out as the winner of all three the debates, while being the loser after the outcome of Election Day. This could be explained by the high corporate donations that Hillary Clinton got from the services industry, which would be in line with the findings of Cooper, Gulen and Ovtchinnikov (2010).

Another interesting finding was that no significant relationship has been found between the oil industry and the 2016 U.S. Presidential elections. Since Hillary Clinton focused on renewable energy sources and climate change, it was expected that the oil industry would react negatively on the debates and positively on the outcome of Election Day. Since Bouiyour and Selmi (2017) did find positive significant reactions of the oil industry after Election Day, it is interesting to further study why this difference between the papers occurred. A possible explanation could be the fact that Bouiyour and Selmi used an eight-industry classification.

An important conclusion for investors based on this paper is that it is possible to arbitrage the healthcare industry. This paper proves that this industry reacts positively on deregulation and negatively on regulation. Since the discussion about the Affordable Care Act is still going on, investors could still benefit from this discussion.

Unfortunately, since CRSP was only able to calculate portfolio returns until December 31st 2016, it was not possible to also study the effects after the inauguration of Donald Trump. During Donald Trump's first months as President of the U.S. some controversial statements and decisions have been made as well as the discussion about the Affordable Care Act. This can be seen as a limitation and therefore this paper recommends to include these events in further research to measure the effect of his post Election statements on the industries as well.

Finally, this paper used dummy variables and thus only studied the difference in returns after the debates and after Election Day in comparison with the returns of other days in the measured period, which is a limitation of this paper. Since previous studies discussed in the literature review all worked with abnormal (future) returns, this paper would benefit if an abnormal returns section would be included. Thus, one recommendation for further research is to expand this work by using the abnormal returns methodology to give a complete analysis of the effect of the 2016 U.S. Presidential elections. However, abnormal returns were used to calculate the effect of the campaign contributions on the abnormal returns of industries. Since no concrete pattern in the effects of industry-level campaign contributions on the abnormal returns of industries has been found, it would also be interesting to further study these results.

In summary, Donald Trump's election especially rescued the portfolio returns of the healthcare industry by giving the industry hope on deregulation and market effect. Thirteen other industries showed positive reactions as well, but no difference were found with the period where Hillary Clinton seemed to win. Thus, the main conclusion of this paper is: Donald Trump, making America's healthcare industry great again!

V. References

Allvine, F. C., & O'Neill, D. E. (1980). Stock Market Returns and the Presidential Election Cycle. *Financial Analysts Journal , 36* (5), 49-56.

Andrews, W., Katz, J., & Patel, J. (2016, November 8). *Latest Election Polls 2016*. Retrieved July 12, 2017, from New York Times: https://www.nytimes.com/interactive/2016/us/elections/polls.html

Blake, A. (2016, September 26). *The first Trump-Clinton Presidential Debate Transcript, Annotated*. Retrieved June 1, 2017, from The Washington Post: https://www.washingtonpost.com/news/the-fix/wp/2016/09/26/the-first-trump-clinton-presidential-debate-transcript-annotated/?utm_term=.817245bc3e11

Blotter, J. T. (2017, May 8). *The Impact of the 2016 Election on the Financial Performance of Major Healthcare Companies.* Retrieved July 15, 2017, from DIgital Commons: http://digitalcommons.usu.edu/gradreports/937/

Bouoiyour, J., & Selmi, R. (2017, March 1). *The Price of Political Uncertainty: Evidence from the 2016 U.S. Presidential Election and the U.S. Stock Markets.* Retrieved July 15, 2017, from Cornell University Library: https://arxiv.org/abs/1612.06200

Brown, K. C., Harlow, W. V., & Seha, M. T. (1988). Risk Aversian, Uncertain Information, and Market Efficiency. *Journal of Financial Economics , 22* (2), 355-385.

Campbell, J. Y., & Shiller, R. J. (1987). Cointegration and Tests of Present Value Models. *Journal of Political Economy , 95* (5), 1062-1088.

Clinton, H. (2015, April 12). *Learn more about Hillary's vision for America*. Retrieved May 7, 2017, from Hillary Clinton Issues: https://www.hillaryclinton.com/issues/

Cooper, M. J., Gulen, H., & V., O. A. (2010). Corporate Political Contributions and Stock Returns. *The Journal of Finance , 65* (2), 687-724.

Durnev, A., Fauver, L., & Gupta, N. (2014, June 28). *When Talk isn't Cheap: The Corporate Value of Political Rhetoric.* Retrieved July 13, 2017, from CiteSeer: http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.432.1579

Fama, E., & French, K. R. (2017, May 1). *Detail for 30 Industry Portfolios.* Retrieved May 1, 2017, from Dartmouth, Kenneth R. French: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_30_ind_port_old.html

Gorban, P. M., & Bacon, F. W. (2017). Presidential Elections and Industry Stock Returns: a Test of Market Efficiency. *ASBBS Proceedings , 24* (1).

Johnson, J. (2016, January 22). *Here are 76 of Donald Trump's many campaign promises*. Retrieved May 7, 2017, from The Washington Post: https://www.washingtonpost.com/news/post-politics/wp/2016/01/22/here-are-76-of-donald-trumps-many-campaign-promises/?utm_term=.31622f31f9b0

Kiersz, A. (2016, December 12). *Here's why stocks have been on a tear since Trump's election*. Retrieved July 12, 2017, from Business Insider: https://www.businessinsider.nl/stock-markets-after-trump-election-2016-12/?international=true&r=US

Knight, B. (2006). Are Policy Platforms Capitalized into Equity Prices? Evidence from the Bush/Gore Presidential Election. *Journal of Public Economics , 90* (4), 751-773.

Lau, R. R., & Pomper, G. M. (2002). Effectiveness of Negative Campaigning in US Senate Elections. *Amerian Journal of Political Science , 46* (1), 47-66.

Maligkris, A. (2017, July 13). *Political Speeches and Stock Market Outcomes.* Retrieved July 15, 2017, from SSRN Papers: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2980475

Niederhoffer, V., Gibbs, S., & Bullock, J. (1970). Presidential Elections and the Stock Market. *Financial Analysts Journal* , 111-113.

Nordhaus, W. D. (1975). The Political Business Cycle. *The Review of Economic Studies , 42* (2), 169-190.

Riley, W. B., & Luksetich, W. A. (1980). The Market Prefers Republicans: Myth or Reality. *Journal of Financial and Quantitative Analysis , 15* (3), 541-560.

Samson, A., Wigglesworth, R., & Bullock, N. (2017, January 20). *Trump's Unexpeced Impact on Markets in Seven Charts*. Retrieved July 12, 2017, from Financial Times: https://www.ft.com/content/401d0d88-de64-11e6-9d7c-be108f1c1dce?mhq5j=e2

Schipper, K., Thompson, R., & Well, R. L. (1987). Disentangling Interrelated Effects of Regulatory Changes on Shareholder Wealth. *The Journal of Law & Economics , 30* (1), 67-100.

Schwer, G. W. (1981). Using Financial Data to Measure Effects of Regulation. *The Journal of Law & Economics , 24* (1), 121-158.

Shon, J. J. (2010). Do Stock Returns Vary with Campaign Contributions? Bush vs. Gore: The Florida Recount. *Economics & Politics , 22*, 257-281.

Snowberg, E., Wolfers, J., & Zitzewitz, E. (2007). Partisan Impacts on the Economy: Evidence from Prediction Markets and Close Elections. *The Quarterly Journal of Economics , 122* (2), 807-829.

Staff, P. (2016, October 20). *Full Transcript: Third 2016 Presidential Debate*. Retrieved June 1, 2017, from Politico: http://www.politico.com/story/2016/10/full-transcript-third-2016-presidential-debate-230063

Stangl, J. S., & Jacobsen, B. (2005, November 30). *Political Cycles in US Industry Returns.* Retrieved July 12, 2017, from SSRN Papers: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=864804

Tufte, E. (1978). *Political Control of the Economy.* Princeton: Princeton University Press.

Unknown. (2016, October 10). *Transcript of the Second Debate*. Retrieved June 1, 2017, from The New York Times: https://www.nytimes.com/2016/10/10/us/politics/transcript-second-debate.html

Wagner, A., Zeckhauser, R. J., & Ziegler, A. (2017, February 1). *Company Stock Reactions to the 2016 Election Shock: Trump, Taxes and Trade.* Retrieved July 13, 2017, from The National Bureau of Economic Research: http://www.nber.org/papers/w23152

Wolfers, J., & Zitzewitz, E. (2016, October 20). *What do Financial Markets think of the 2016 Election?* Retrieved July 15, 2017, from Brookings: https://www.brookings.edu/wp-content/uploads/2016/10/what-do-financial-markets-think-of-the-2016-election_102016_wolferszitzewitz.pdf

Appendix A: CNN/ORC, CBS/New York Times and ABC News/Washington Post Presidential election polls

Chances of Hillary Clinton and Donald Trump becoming the 45th U.S. President according to CNN/ORC, CBS/New York Times and ABC News/Washington Post election polls during the period 28-09-2016 – 08-11-2016.			
Poll	**Date taken**	**Hillary Clinton**	**Donald Trump**
CNN/ORC	08-11-16	**46%**	42%
CBS News/New York Times	08-11-16	**45.9%**	42.8%
CBS News/New York Times	02-11-2016 - 06-11-2016	**47%**	43%
ABC News/Washington Post	02-11-2016 - 05-11-2016	**49%**	45%
ABC News/Washington Post	01-11-2016 - 04-11-2016	**49%**	44%
ABC News/Washington Post	31-10-2016 - 03-11-2016	**49%**	45%
ABC News/Washington Post	30-10-2016 - 02-11-2016	**49%**	45%
ABC News/Washington Post	29-10-2016 - 01-11-2016	**49%**	47%
CBS News/New York Times	28-10-2016 - 01-11-2016	**47%**	44%
ABC News/Washington Post	28-10-2016 - 31-10-2016	**48%**	47%
ABC News/Washington Post	27-10-2016 - 30-10-2016	**48%**	47%
ABC News/Washington Post	26-10-2016 - 29-10-2016	**49%**	47%
ABC News/Washington Post	25-10-2016 - 28-10-2016	**46%**	45%
ABC News/Washington Post	24-10-2016 - 27-10-2016	**49%**	46%
ABC News/Washington Post	23-10-2016 - 26-10-2016	**50%**	45%
ABC News/Washington Post	22-10-2016 - 25-10-2016	**51%**	44%
CNN/ORC	20-10-2016 - 23-10-2016	**51%**	45%
ABC News/Washington Post	20-10-2016 - 22-10-2016	**53%**	41%
ABC News/Washington Post	10-10-2016 - 13-10-2016	**50%**	46%
CBS News/New York Times	28-09-2016 - 02-10-2016	**49%**	43%
CNN/ORC	28-09-2016 - 02-10-2016	**47%**	42%

Appendix B: industry-level campaign donations to Hillary Clinton and Donald Trump

This table provides information on the sectors that donated to Hillary Clinton's and Donald Trump's campaigns in dollars.			
Hillary Clinton		**Donald Trump**	
Sector	**Amount**	**Sector**	**Amount**
Other	$127,239,564	Other	$35,458,919
Finance, Insurance & Real Estate	$115,856,352	Finance, Insurance & Real Estate	$9,031,154
Communications/Electronics	$62,053,685	Misc Business	$8,352,732
Ideological/Single-issue	$56,938,300	Ideological/Single-issue	$5,599,557
Lawyers & Lobbyists	$41,738,307	Health	$4,761,744
Health	$31,270,269	Construction	$3,406,385
Misc Business	$30,846,069	Agribusiness	$2,431,752
Labor	$29,001,658	Lawyers & Lobbyists	$1,914,189
Construction	$4,759,295	Energy & Natural Resources	$1,774,875
Energy & Natural Resources	$2,788,194	Transportation	$1,632,827
Transportation	$2,205,000	Communications/Electronics	$1,595,942
Agribusiness	$2,174,708	Defense	$364,412
Defense	$1,088,222	Labor	$15,966
Total	**$507,959,623**	**Total**	**$76,340,484**