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How are Financial Markets affected by the Election of Donald Trump?

**An Event Study on the U.S Stock Market's Response to
Changes in Political Leadership.**

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Abstract

Changes in political leadership influence the economic policy of government, which directly impacts on firms. Accordingly, the risk-adjusted market return alters, as investors reallocate their investments. We apply common financial methodologies in investigating how the election of Donald Trump affects the U.S stock market. Utilizing the Fama and French three-factor model, and the Jensen's alpha approach, we find no evidence of abnormal returns from Trump's presidency. However, we find that a portfolio consisting of the health care sector, the defense sector, and the flight-travel sector generates negative abnormal returns during the Bush – and Obama presidential periods. Correspondingly, we reject that the election of Donald Trump negatively affects the combined portfolio, as the portfolio performs much worse with Bush and Obama as presidents. Furthermore, we find evidence that the health care sector, the defense sector, and the flight-travel sector possess a sufficiently higher risk-adjusted performance with Trump as president, compared to Bush and Obama based on Sharpe ratio estimation. Controlling for political party, the results do not support that Trump's effect on the U.S. stock market is related to his republican policies. We conclude that the election of Donald Trump increases the performance for the sector portfolios compared to the Bush – and Obama presidential periods.

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1. Introduction

On November 8, 2016, Donald Trump was elected president of the United States after one of the most divisive and controversial elections in living memory. Prior to the election, economic specialists feared that the potential election of Trump would induce distressed market conditions. Tobias Levkovich, chief U.S equity analyst for Citigroup, predicted an immediate fall of 3%-5% in the S&P 500 if Trump defeated Clinton. According to Bridgewater Associated, the Dow Jones Industrial Average could decent by nearly 2000 points in one day if Trump was elected president, and would thus be the biggest one-day decline in stock market history. Simon Jonson, a former chief economist of the IMP, argued that an election of Trump would cause the stock market to collapse, and furthermore, that the election would result in a global regression (Carney, 2017). Berkman and Jacobsen (2006), document how political uncertainty impacts on financial actors, where abnormalities arise in financial markets as a result of major political events. Furthermore, national elections influence stock market prices (Campello 2007; Jensen and Schmith 2005; Santiso 2013). In this thesis, we investigate how financial markets react to changes in political leadership. The research question is thus; “How are financial markets affected by the election of Donald Trump?”. We apply theories from both economic – and political science, and use familiar financial methodologies to study this unexplored event. Based on the alpha estimation, we reject that Trump has a negative effect on a portfolio consisting of the health care sector, the defense sector, and the flight-travel sector, as the portfolio returns are sufficiently higher with Trump as president, compared to the Bush – and Obama presidential periods. Furthermore, we find evidence that the health care sector, the defense sector, and the flight-travel sector has a sufficiently higher risk-adjusted performance with Trump as president, as measured by Sharpe ratio. Controlling for political party, our results do not support that Donald Trump’s effect on the U.S stock market is related to his republican policies.

1.1 The Structure of the Thesis

The objective of this section is to provide the reader with an overview of the structure of the thesis. This chapter considers our motivation for assessing the effect of Trump’s presidency on financial markets, and correspondingly the importance of addressing this topic. Furthermore, we present challenges acquired in the empirical research, and the main results from the

empirical analysis are displayed. Lastly, we debate where the thesis expands on current literature and the contribution of our research. In chapter 2 we provide a brief presentation of Donald Trump and his 2016 presidential campaign. Chapter 3 presents the theoretical framework, where we extend the game theoretical knowledge in Knocksen and Ok (2007) by applying their theory on investment decision to presidential elections. Furthermore, the game theoretical model is inspired by Rodrik (1989). Chapter 4 presents a discussion of previous academic literature on the subject, supplemented by information on the fundamentals of financial markets. Additionally, two theories on variation in market responses to democratic political processes are portrayed. In Chapter 5, we hypothesize the potential reaction of the U.S stock market to the election of Donald Trump based on the theoretical – and empirical literature. Furthermore, we generate supporting hypothesizes to improve the empirical analysis in later chapters. Chapter 6 portrays the data, where we utilize stock market data to construct our dependent variable, and collect monthly data from the database Eikon and Kenneth French's homepage. The data begin in December 1997 and goes until December 2017. The methodology is displayed in chapter 7. We follow Eckbo and Ødegård (2015) by applying the Fama and French three-factor model and the Jensen's alpha approach to evaluate the portfolios, and thus how the election of Donald Trump affects the U.S stock market. Chapter 8 portrays the empirical results, while in chapter 9 the conclusion and suggestions for future research on the subject are displayed.

1.2 Motivation

Evidence in previous literature on the relationship between politics and finance is inadequate and mixed, and is thus important to further investigate. Empirical research on the effect of government partisanship on stock market behavior produces contradictory results. According to Riley and Luksetich (1980), financial markets prefer republicans following elections, while Pantzalis et al. (2000) estimate positive abnormal returns prior to the election week. Furthermore, many are unaware of the important functions financial markets play in the overall state of the economy. Lopez and Spiegel (2002) provide evidence of a strong positive relation between financial development and economic growth. Vuchelen (2003) analyzes stock market behavior around national elections and argues for a possible lagged effect occurring after the political change of leadership. Santa-Clara and Valkanov (2003) document a better stock market performance under left-wing governments, whereas Leblang and Mukherjee (2005) find

evidence of higher excess return under right-wing governments. Combined, these variations create uncertainties regarding what mechanisms that influence the relationship between politics and financial markets, and further investigation is thus adequate.

Jones and Olken (2005) argue that individual leaders appear to affect policy outcomes, as well as influencing the growth of nations. Stable financial markets is accordingly an important component for a strong national economy. Furthermore, financial publications like *The Economist* and *The Financial Times* extensively report political events, indicating that financial actors consider policy outcomes to affect financial markets. If financial markets are unaffected by politics, such events would receive little attention in financial journals. Given that investors are regulated by the framework constructed by political leaders, their concern for future uncertainties are understandable. Levitt and Dubner (2005) argue that few social sciences are applied in economics, despite the fact that economic methodology is utilized in topics such as law, crime and politics. Bernhard and Leblang (2006) argue that the fraction of literature integrating political processes and financial markets' performance are limited. The change of political leadership is greatly associated with uncertainty regarding future policies, and accordingly such events influence the economic policy of governments. The collective actions of investors therefore affect the nature of how financial markets react to political events, when the environment investors operate in is adjusted (Bernhard and Leblang, 2006).

Haber, North, and Weingast (2008) argue for a positive connection between financial development and the social well-being of a country's population. Accordingly, stable financial markets might promote social development and stable economic growth. Market participants comply to restrictions set by political leaders and operate within institutions formed by the incumbent. The policy of the political leader thus impacts the financial markets, indicating that politics clearly affect the economy (Bragues, 2010). According to Bragues (2010), economists possess ownership in the study of financial markets, where their theoretical constructions are evidenced on the assumption of zero taxes. Furthermore, the author claims that economics promote a vision that changes in security prices are explicable in terms of the law of supply and demand. In actuality, financial markets are connected with politics, both influencing the latter and being shaped by it. Bragues (2010) further asserts that the economic crisis of 2007-2009 designates the demand for more interdisciplinary research on how financial markets behave, and that politics and finance do not only intersect in exceptional circumstances. Additionally, the basic element of finance, money, happens to be a political construction that is manufactured

and distributed by central banks globally (Bragues, 2010). Investigating how political changes affect financial markets is accordingly relevant.

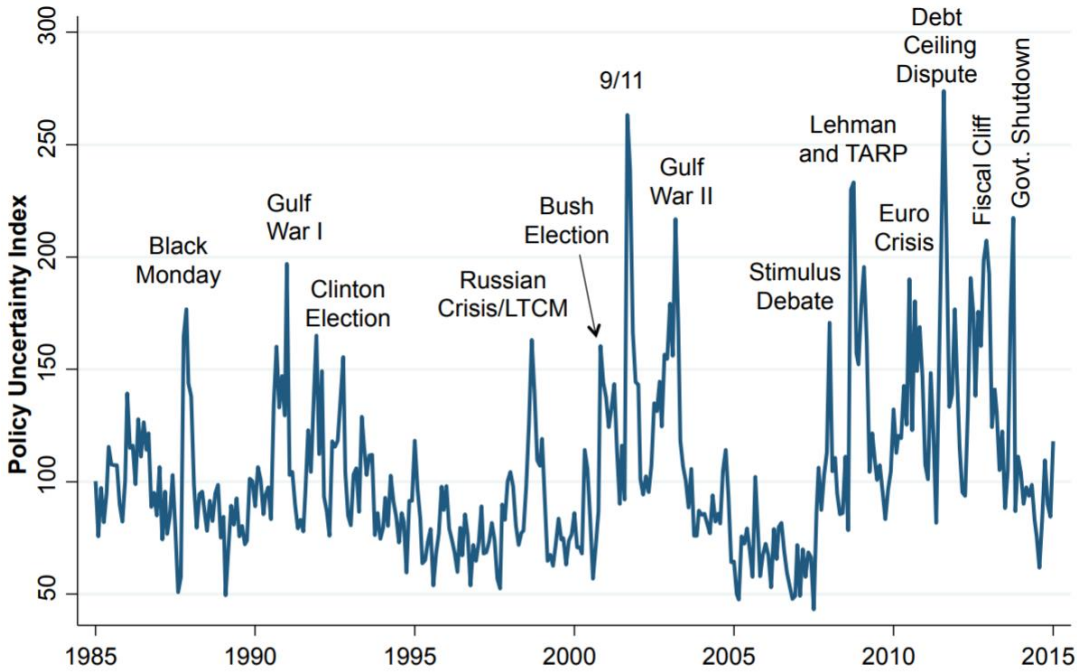
According to Bechtel (2012), the flow of international capital has increased rapidly over the last decades, where the objective of financial actors is to maximize the value of their investments. With fewer restrictions on international capital flow, economic actors are able to reallocate their portfolios to various financial markets at the global scale, generating competition between countries on capital investments. Investors' portfolio decisions are thus of importance for a country's economy, as capital is necessary for growth, which affects consumption, and wealth. Based on this, the progressive interest of how political factors influence the performance of financial markets are not unexpected. Nevertheless, not all political changes induce distressed market conditions. Consequently, further information on the mechanism between politics and financial markets, and parameters influencing investors' behavior, is valuable.

On April 23, 2013, the Associated Press's twitter account was hacked, sending out a false message that President Barack Obama was injured after two explosions at the White House. Within minutes of the inaccurate information hitting the web, multiple U.S markets fell drastically, resulting in utter chaos. Reuters data documented a value decrease in the S&P 500 Index of \$US 136.5 billion (ABC, 2013). Furthermore, the Dow Jones industrial average fell by more than 100 points between 1:08 pm and 1:10 pm. Despite the massive fall, the markets quickly recuperated when enlightened on the incorrect report (Elboghdady, 2013). This illustrates the sensitivity of financial markets to sudden political uncertainty. The objective of the thesis is to explore the complex interconnection between financial markets and political uncertainty further.

1.3 Robustness

With the occurrence of the financial crises of 2007-2009, people requested new policies on financial systems, and accordingly a revision of regulations of the market were enforced. However, as the policies were new, the uncertainty regarding their consequences were questioned (Valdez and Molyneux, 2013). Similarly, the election of Trump has created uncertainty regarding how the change in political leadership influences financial markets.

Baker, Bloom, and Davis (2016) construct an index of economic policy uncertainty for the United States to assess how such uncertainty affects the market value. The authors examine the evolution in uncertainty from 1985, where the index reflects the frequency of articles in leading U.S. newspapers. Figure 1 is obtained from Baker, Bloom and Davis (2016), and portrays the policy uncertainty index for the United States.



Note: “The index reflects scaled monthly counts of articles containing ‘uncertain’ or ‘uncertainty’, ‘economic’ or ‘economy’, and one or more policy relevant terms: ‘regulation’, ‘federal reserve’, ‘deficit’, ‘congress’, ‘legislation’, or ‘white house’. The series is normalized to mean 100 from 1985-2009 and based on queries run on 2 February, 2015 for the USA Today, Miami Herald, Chicago Tribune, Washington Post, LA Times, Boston Globe, SF Chronicle, Dallas Morning News, NY Times, and the Wall Street Journal” (Baker, Bloom and Davis, 2016, p.36).

Figure 1. Economic Policy Uncertainty Index for the US.

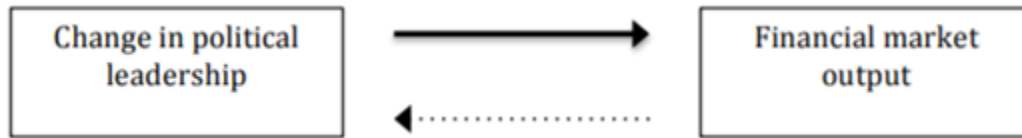
According to Figure 1, the index spikes around events and developments such as close presidential elections, the Gulf Wars, 9/11, the Lehman Brothers bankruptcy, and other major battles over fiscal policy. According to Baker, Bloom and Davis (2016), some notable events do, however, not generate a high economic policy uncertainty according to their index. These events present a challenge in the empirical research, as the data overlaps with occurrences portrayed in Figure 1. We have to be aware when conducting the empirical analysis that other

variables and mechanisms can affect the results, and it can thus be hard to conclude how the presidential election of 2016 influences the stock market. Furthermore, visual inspections of graphs might provide wrongful impressions, as other events or mechanisms can affect one or both variables.

The 2016 presidential election is a rather unexplored event. This implies limited available research and data related to this particular event. However, we accumulate literature on preceding events and methodologies used to estimate similar changes in financial markets to overcome this obstacle.

Furthermore, the empirical analysis encounters another challenge with regards to investigating Trump's effect on the U.S stock market. Not only has a change in political leadership occurred, but additionally, the change in leadership involves a transition from a democratic president to a republican president. Accordingly, it can be difficult to assess whether Trump provides the empirical results, or if the results is a reaction of his political party. To overcome this obstacle, we analyze data under Bush and Trump, and compare the results. We also control all portfolios under Obama.

The direction of causality presents another fundamental challenge with doing empirical research on how financial markets react to the election of Donald Trump. Preceding literature argue that political events influence economic factors, and that the performance of financial markets affect the domestic economy. However, it is unrealistic to assume that economic factors do not affect political events as well. Bernhard and Leblang (2006) find that an unstable financial market can reduce the probability of reelection. According to Lewis-Beck and Stegmaier (2007), voters reward incumbents with their vote when the economy is performing well. Conversely, voters punish the political leader by voting on the opponent when the economy is bad. Accordingly, voters consider economic factors when voting, a term referred to as "economic voting" by the authors. Based on this, Lewis-Beck and Stegmaier (2007) argue that the state of the economy influences elections, as it might force a change in political leadership of a country. The causal relationship between financial markets and politics is thus hard to identify, as they influence - and develop as a result of each other. Figure 2 presents an illustration of causality and its direction.



Note: Illustration of the casual relationship between politics and finance. The bold arrow demonstrates that changes in political leadership affect financial market output. Conversely, the dotted arrow represents the argument that financial market output may influence changes in political leadership.

Figure 2. Causal Relationship.

1.4 Main Results

To assess how the election of Donald Trump affects the U.S stock market we apply the Fama and French three-factor model and the Jensen’s alpha approach to calculate potential abnormal returns for three sectors. Additional performance measurements are utilized to improve the accuracy of our results. We include the health care sector, the defense sector, and the flight-travel sector, and the sectors are chosen based on Trump’s controversial assertions during his presidential campaign. Accordingly, the sectors suggest to be sensitive to political risk with Trump as president. The health care sector is represented by the T Rowe Price Health Science Fund, and for the defense sector we apply the Fidelity Select Defense and Aerospace Portfolio. Furthermore, we construct a value-weighted airline portfolio and a value-weighted portfolio consisting of all three sectors. We find evidence that the Fama and French three-factor model has the highest explanatory power for the health care sector, the defense sector, and the combined portfolio during the Obama presidential period from 2005-2009, as portrayed by R^2 . Furthermore, we conclude that the value-weighted combined portfolio generates negative abnormal returns during the Bush – and Obama presidential periods. However, for the combined portfolio from 2013-2017, we cannot conclude an alpha value different from zero. Accordingly, we reject that Trump has a negative effect on the combined portfolio, as the portfolio returns are higher with Trump as president. Correspondingly, we cannot conclude excess return for the airline portfolio, the health care sector or the defense sector in any presidential period. Our findings further suggest that all estimated portfolios are less volatile than the benchmark during the Trump presidential period from 2013-2017. The Fidelity Select Defense and Aerospace portfolio indicates that stock market returns are less volatile as a result of Trump’s presidency, and not his political party. However, this is not supported by the other

portfolios. Furthermore, the estimated Sharpe ratios indicate that the risk-adjusted performance for all sector portfolios is sufficiently higher with Trump as president, compared to the Bush – and Obama presidential periods. Additionally, the estimated information ratios provide evidence that all sectors are unable to generate excess return relative to the benchmark from 2013-2017. Controlling for political party, the results do not support that Trump’s effect on the U.S stock market is related to his republican policies. We conclude that the election of Donald Trump increases the performance for the sector portfolios compared to the Bush – and Obama presidential periods.

1.5 Contribution

Finance constitutes an important aspect of social science, and accordingly our thesis redounds to the benefits of society. By investigating how the election of Donald Trump influences financial markets, we contribute to the findings of Santiso (2013) that stock market returns are higher under a democratic president in the U.S, by documenting that the stock returns of the value-weighted combined portfolio are much worse during the Bush – and Obama presidential periods, compared to the returns with Trump as president. Furthermore, we contribute to Campello (2007) by extending the literature on controversial presidential elections by providing empirical evidence on a so far unexplored event. To accommodate researchers with a greater understanding of the complex interconnection between political events and financial markets, we apply a methodology widely used in finance; the Fama and French three-factor model. Still, the method is little explored in the study of political science to examine how the U.S stock market reacts to changes in political leadership, and accordingly we expand the insight in literature such as Bernhard and Leblang (2006). We also extend the knowledge in Jensen and Schmith (2005) by providing evidence that investors’ expectations to politicians’ impact on the economy do not result in a higher/lower mean return in the stock market. Furthermore, we contribute to game theory by extending the game theoretical knowledge on investment decision in Knoeksen and Ok (2007) to presidential elections, supplemented by inspiration from Rodrik (1989). The number of students and researchers within the field of economic science and political science is increasing, and our thesis can thus be utilized as an application for further education of graduate students. For us, the thesis help discovers critical parts of finance that are undiscovered in preceding literature.

2. The Election of Donald Trump

Donald Trump has led a controversial presidential campaign, and in this section we enlighten how the skepticism about Trump came to arise. Donald Trump was born in Queens, New York on June 14, 1946. Once considered a long shot, Donald Trump was elected the 45th president of the United States. However, long before his controversial presidential campaign, Trump was considered a real estate mogul and TV reality star.

Trump began his career after college when he started working for his father's real estate firm. In 1974 he took over its leadership and with the construction of prominent projects, Trump advanced in the real estate world. He acquired and built hotels, office towers, casinos and golf courses, among other things. In 1987, Donald Trump also published his first book, "The Art of the Deal", which became a best-seller. In 2004, the dubious presidential candidate, additionally starred in the reality series "The Apprentice", and appeared on the show for 14 seasons (History.com staff, 2016).

Prior to the 2016 presidential race, Donald Trump expressed interest in running for president at several occasions. However, his political career did not begin until he pursued a nomination for the reform party in the 2000 presidential race, and withdrew. After 2008, he began questioning if former president, Barack Obama, was born in the United States, which was later confirmed he was. On June 16, 2015, Trump formally announced his candidacy for president of the United States on the Republican party. Skepticism over Trump's entrance derived not only from his celebrity past, but also from his controversial campaign platform. Under the banner "Make America Great Again", Trump made a string of headline promises to strengthen the American economy, banning all Muslims entering the U.S, and to build a wall on the boarder of Mexico and the United States. On July 21, 2016, Trump became the official Republican nominee for President, despite massive protest at his campaign events. His opponent from the democratic party was Hillary Clinton (BBC, 2017).

Closing in on the election, almost all national pools predicted a victory for the democratic candidate. However, Trump defied all predictions and defeated Clinton on November 8, 2016, after one of the most divisive and controversial contests in living memory. On January 20, 2017, Trump was sworn in as the 45th president of the United States. Following the inauguration of Trump, millions of protesters demonstrated worldwide (BBC, 2017).

One of Trump's promises during his presidential campaign was to repeal and replace Obamacare.¹ According to Trump, this allows U.S. citizens to have private health care insurance plans, which he argues is a better system than Obamacare. Trump justifies his claim by arguing that a change of system reduces unemployment and create jobs, as well as increase the competition in the market. This in turn leads to less expensive health care insurance for citizens, and a larger demand will create larger supply, thus increasing the market and business. On December 22, 2017, Trump managed to change the law. His opposing candidate during the election, Clinton, wanted to continue to integrate Obamacare (Krieg, Mullery, Yellin, 2018).

Trump's presidential campaign also consisted of a promise to halt Muslims' entry to the United States. This promise substantiates on the claim that large segments of the Muslim population have hatred towards Americans, where Trump argues that it is a necessary action to keep U.S safe from terrorism (Valverde, 2017). In December 2017, the Supreme Court allowed Trump's travel ban to take full effect. However, it was argued that the ban violated federal law, and parts of the law was lifted. Still, the broader order remains in effect. Furthermore, Trump made a promise to block Syrian refugees, and on October 24, 2017, he executed an order which required more collection of biographical data on refugees to detect fraud. Again, Trump claims the law is needed to protect U.S (Krieg, Mullery, Yellin, 2018).

Another controversial campaign promise made by Trump was to build a border wall between the U.S and Mexico, at Mexico's expense, as this would minimize the illegal immigration. Correspondingly, Trump also wanted to deport millions of undocumented immigrants. Conversely, Hillary Clinton supported the "American dream act" during her presidential campaign. Furthermore, Trump promised to withdraw from NAFTA, and renegotiate the terms of the trade deal with Canada and Mexico. In addition, he wants do reinforce torture, and build up Guantanamo Bay (Krieg, Mullery, Yellin, 2018).

Under his presidential campaign, Trump promised to strengthen the U.S economy, and in order to do that, he proposed a tax reduction for individuals and corporation, where the corporate rate would drop from 35% to 20%. According to Trump, lower taxes allow firms to use the "saved" money to reinvest in their corporations, and furthermore, return jobs and businesses to the U.S. This promise inspired his pledge to bring back jobs from overseas. President Trump also

¹ Obamacare was intended to provide universal health care coverage to all U.S citizens (Krieg, Mullery and Yellin, 2018).

promised to rebuild America's infrastructure, a good initiative to increase employment and improve corporations financially (Krieg, Mullery, Yellin, 2018).

Additionally, Trump argues that the U.S military is weakened. Based on this, he promised to submit a new budget to rebuild the military by increasing the size of the U.S army, rebuilding the marine corps and navy, and provide the U.S air force with 1200 fighter aircrafts (Politifact, 2018).

3. Theoretical Framework

The aim of this chapter is to assemble the theoretical background for the thesis. We draw inspiration from Rodrik (1989), and extend the game theoretical knowledge on investment decision in Knocksen and Ok (2007), and construct a game theoretical model on presidential elections. Applying a game theoretical model provides insight into rational investors' behavior, and thus helps identify investors' reactions under political uncertainty.

3.1 Game Theoretical Model

Although game theory is a common practice utilized in economics and political science, game theoretical models are less applied in the literature on financial markets and political change. However, there are some exceptions. Gate and Humes (1997, p.113-139) use game theory to demonstrate how policy reforms, in particular political liberalization, affect the market. Bernhard and Leblang (2006, p.50-53) is another example, though they exercise the model in the setting of contradictions between alliances. Inspired by these authors, we use game theory as a means to develop our main hypotheses. We extend the game theoretical knowledge in Kockesen and Ok (2007) by applying their theory on investment decisions to presidential elections. Furthermore, we utilize the discussion of investment decisions with policy uncertainty in Rodrik (1989) as a mathematical inspiration for the theoretical equations. We assume, in accordance with economic theory, that players are rational and always decide on the option that maximizes their overall utility (McCarty and Meirowitz, 2007, p.6).

According to Gate and Humes (1997), each game consists of three parts; a number of players (the actors), each player's strategies, and a payoff describing the outcome of each play in the game in terms of gains and losses for each player (p.23). In our demonstration, the players are investors and voters.² Realistically, actors have numerous alternatives, however for simplicity, we assume that each actor only encounter two possible options in each round of the game. In the first round of the game, investors can decide to invest in a risky asset or not invest in a risky asset. In the second round of the game, investors choose to keep their investment or withdraw

² We use the term «voters» as it represents a situation where people choose between keeping the current presidential leadership or change political leadership in an election setting.

their investment. Similarly, in the second round, voters decide if they want to keep the current political leadership or change the sitting incumbent. This implies that the game theoretical model is a sequential game consisting of three rounds (Prisner, 1925, p.53).

In this model, investors possess two investment options. Investors can either invest in a safe asset such as a government bond or by saving money in a bank, or they can invest in a risky asset such as a stock issued by a corporation (Kockesen and Ok, 2007, p.8). In accordance with Kockesen and Ok (2007), we assume that the potential gains from the risky investment (g) exceeds the risk-free investment reward (rf) that is received if investors decide to invest in the safe asset (p.8). This implies that $g > rf > 0$.³ Additionally, investing in a risky asset involves a fixed – and sunk cost, $fc > 0$ (Kockesen and Ok, 2007, p.9). Furthermore, investors can decide to keep their investment in a risky asset or to withdraw their investment after the election results are revealed. If investors decide to withdraw their investments, they are left with the cost (fc), as this is fixed, but without the potential gains (g). Rodrik (1989) argues that “even moderate policy uncertainty can act as a heavy tax on investment” (p.2). Rodrik (1989) debates that the reversal of policy reforms imposes uncertainty on investors, and thereby also a cost which is depended on the size of the uncertainty (p.7). Accordingly, risky investments are associated with an unknown variable cost (vc), as election outcomes are uncertain and have the potential to interfere with taxation and other laws. For simplicity, we assume that the variable cost can be either low (L), if voters keep the current political situation; or high (H), if voters change the political leadership. The assumption of a higher variable cost following a change in political leadership is reasonable to assume, as a change of the political situation involves a higher uncertainty for investors compared to known policies. Table 1 outlines the different scenarios and associated payoffs for investors.

³ This is, however, only the case if the company performance is good. If the company performance is bad, investors receive zero returns (Kockesen and Ok, 2007, p.9).

Table 1: Investors' Payoff Matrix.

Note: The matrix consists of two rows illustrating the investment decisions available to investors in round 1 of the game. The first investment decision is to invest in a risky asset, whereas the second investment decision is to invest in a safe asset. The latter one is denoted "Not invest in risky asset" in the table. The three columns represent investors' investment decision post-election. Investors can in the second round decide to keep their investment if the current situation continues, keep their investment if a change in political leadership occurs, or withdraw their investment. The intersection between a column and a row portrays the associated investor payoff.

	Keep investment after election (current situation)	Keep investment after election (change political leadership)	Withdraw investment
Invest in risky asset	$g - (fc+vcL)$	$g - (fc+vcH)$	$-fc$
Not invest in risky asset	rf	rf	rf

Voters can choose to keep the sitting incumbent or change the political leadership. The payoff to the voters depend on their evaluation of the incumbent in place. For simplicity, we assume that the voters' assessment of the current political leader is limited to be either good or bad.⁴ It is reasonable to believe that voters keep a good political leader and replace a bad incumbent. If this is the case, we assume that voters receive a payoff of 1 if they keep the good officeholder, or if they replace a bad political leader. If voters decide to keep the bad incumbent or change a good political leader, we assign the voters a payoff of 0.

Mattozzi (2004) argues that uncertainty comes from future policy changes and corresponding consequences. Uncertainty can also arise from investors withdrawing their initial investments, as a collective withdrawal might hurt the national economy and job security among inhabitants (Jones and Olken, 2005, p.26). Accordingly, changes in the political leadership might induce uncertainty on voters, and uncertainty comes at a cost (Rodrik, 1989). Based on this, voters are likely to experience a cost by changing the political leadership, even if the incumbent is evaluated as bad. The cost associated with a change of leadership is denoted c , and is assumed $1 > c > 0$. Table 2 outlines the different scenarios and associated payoffs for voters.

⁴ This situation represents voters' evaluation. Investors may have other preferences and evaluations than voters.

Table 2: Voters' Payoff Matrix.

Note: The matrix consists of two rows illustrating the voters' assessment of the political leader in place in terms of good or bad. The two columns represent the voters' election decision. The left column represents the decision to keep the current political leader, whereas the right column represents the voters' decision to change the political leadership. Voters' payoff is portrayed in the intersect between the rows and the columns.

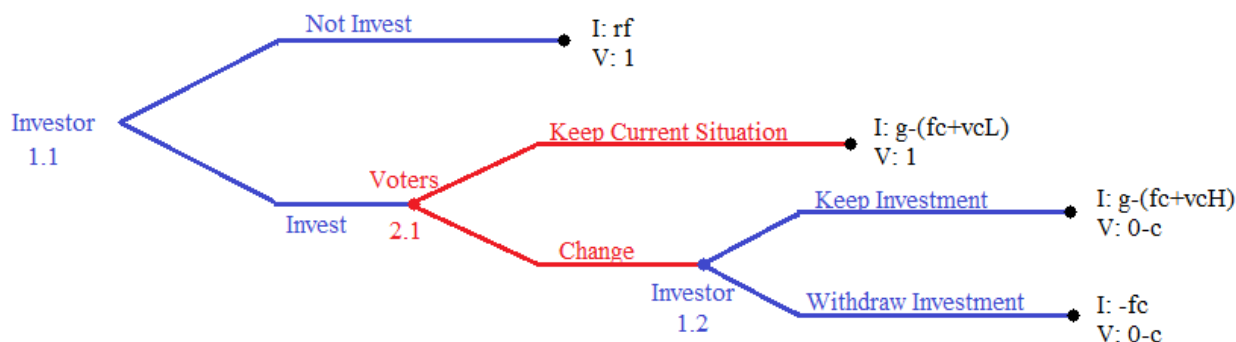
	Keep current Situation	Change Political Leadership
Good Political Leader	1	0-c
Bad Political Leader	0	1-c

According to Table 2, voters always favor to keep a good political leader as $1 > 0-c$, by assumption. In the following sections, we consider two game theoretical models. The first model represents the event of full information, while the other model illustrates a situation in which investors make their initial investment decision without information on voters' view on the political leadership.

3.1.1 Complete Information

A game of complete information indicates that the game structure and the associated payoffs are known by the actors playing the game (Gate and Humes, 1997, p.114). Complete information thereby implies that the investors possess knowledge about voters' payoff and their evaluation of the political leadership in terms of good or bad. Likewise, the voters know investors' preferences and payoffs.

In this section we present two games. The first game demonstrates a situation in which voters assess the political leadership as being good, and this is represented by Figure 3. The second game is denoted as Figure 4, and is the case of a bad incumbent. Investors' payoff and voters' payoffs are marked at the terminal nodes by "I" and "V", respectively.



Note: Figure 3 illustrates a decision tree of possible actions available to voters and investors in the case of a good political leader. At the initial node, investors are given the option to invest in a risky asset, or not invest in a risky asset. The various decision nodes are represented by closed, colored circles, and portray the points in the game at which players make a decision. From each node, two branches emanate, where each branch represents an action that can be taken by the player who is to move at the node. Each branch is labelled with the corresponding action. The black nodes illustrate terminal nodes, at which points the game is over and nobody takes further actions. To each terminal node, the voters' and investors' payoff vectors are illustrated.

Figure 3. Good Political Leader Decision Tree.

Figure 3 represents a game in which voters assess the political leadership as good. At node 1.1, the investors have the option to invest in a risky asset, or not invest in a risky asset. If the investors decide not to invest, they receive the risk free investment reward (rf), and the game is terminated. Voters are in this case given the payoff of 1, as keeping the political leadership is their preference independent of investors' decision in the game. If investors, on the other hand, decide to invest, voters are given the next move in the game. They can choose between keeping their current situation or changing the political leadership. If the voters decide to keep the current political leadership, we assume that investors hold their investment, as a means to simplify the demonstration. If the opposite were true, investors would have no incentive to invest initially.

At node 1.2, we find it appropriate to start at the end as recommended by McCarty and Meirowitz (2007). According to the authors, this is a common way to solve a dynamic game with complete information, and is referred to as backward induction. The method implies starting at the last node in the game and deciding the actions that maximizes the utility of the given player (p.175). Applying this procedure, investors withdraw their investment if $g - (fc+vcH) < -fc$ to limit their loss due to high variable costs. Considering that both sides are affected by the sunk cost (fc), it is a matter of whether the variable cost (vcH) exceeds the gain (g).

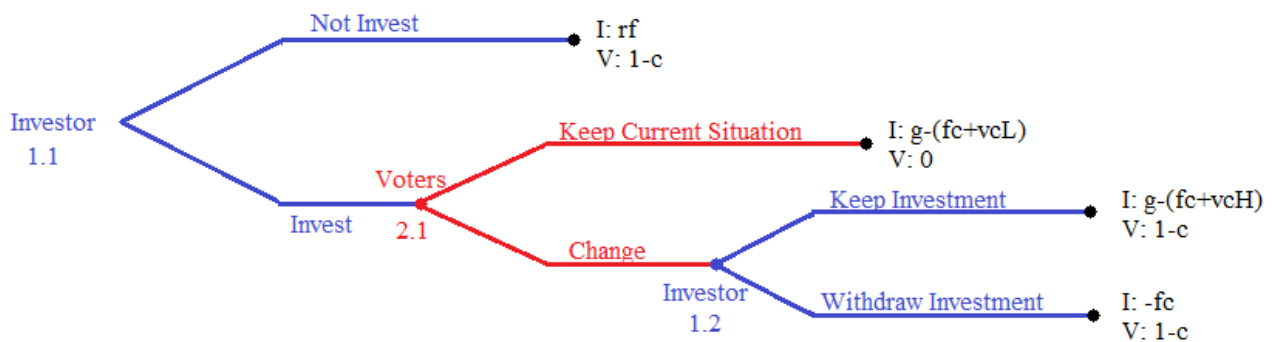
$$g - (fc+vcH) < -fc$$

$$g - vcH < 0$$

$$g < vcH \tag{1}$$

According to Equation 1, investors withdraw their investments to minimize their loss if voters decide to change the current incumbent. At node 2.1, voters have the option between a payoff of 1, if they keep the current political leadership, or $0-c$, if they change political leadership. It is apparent that $1 > 0-c$, given that $c > 0$. Finally, the investors at node 1.1 invest if $g - (fc+vcL) > rf$. The equilibrium solution to the game is therefore that investors invest and the voters keep (or re-elect) the good incumbent.

Figure 4 demonstrates a situation in which the current incumbent is evaluated as bad. At node 1.2 investors' decision is equivalent to Figure 3, and as before, they decide to withdraw the investment. However, at node 2.1, the voters' payoff is changed. By keeping the current political leader, voters receive a payoff of 0, while they get a payoff of $1-c$ if they change their bad incumbent. We assume that the cost of changing the government (c) is less than 1, meaning that $1-c > 0$. Given this assumption, the voters thereby decide to change the political leadership in 2.1. This affects the payoff to the investors at 1.1. The investors invest if $-fc > rf$, which is obviously not the case. A negative cost can never exceed the risk-free investment reward as $rf > 0$. The equilibrium solution to the game is therefore that investors choose not to invest in the first round, taking the risk free investment reward and terminating the game.



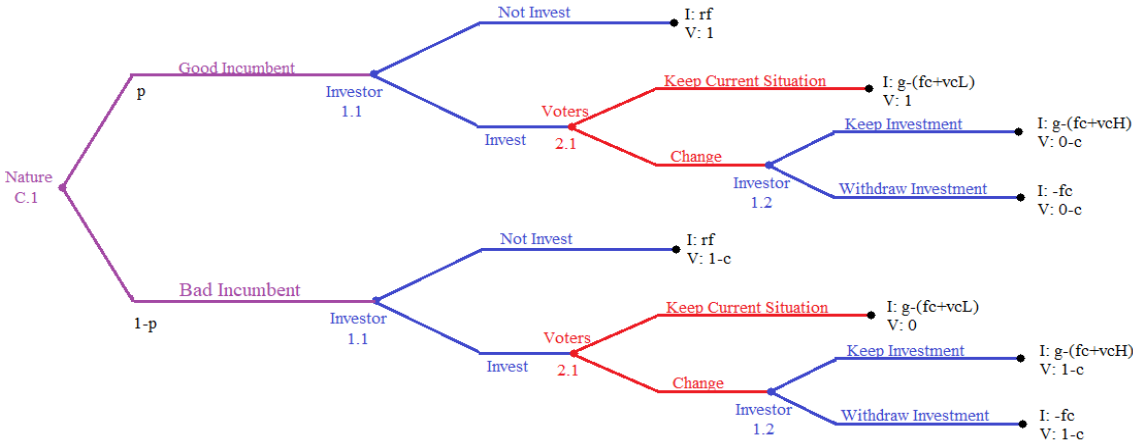
Note: Figure 4 illustrates a decision tree of possible actions available to voters and investors in the case of a bad political leader. At the initial node, investors are given the option to invest in a risky asset, or not invest in a risky asset. The various decision nodes are represented by closed, colored circles, and portray the points in the game at which players make a decision. From each node, two branches emanate, where each branch represents an action that can be taken by the player who is to move at the node. Each branch is labelled with the corresponding action. The black nodes illustrate terminal nodes, at which points the game is over and nobody takes further actions. To each terminal node, the voters' and investors' payoff vectors are illustrated.

Figure 4. Bad Political Leader Decision Tree.

3.1.2 Incomplete Information

The assumption of complete information is often unrealistic. A more probable assumption is that investors anticipate the preferences of the electorate with some probability. In this section, we discuss the situation of incomplete information. Games of incomplete information is useful in order to analyze strategic interactions characterized by uncertainty for one or both actors (Gate and Humes, 1997, p.114).

In a game of incomplete information, the probability of a political leader being evaluated as good or as bad is random. Because of this, the first node in the game is labelled as a chance move, where the next branch of the game tree is achieved non-strategically by chance, or “nature”, according to certain probabilities (Turocy and Stengel, 2001, p.30). The probability of an incumbent being assessed as good is denoted p , and the probability of an incumbent being evaluated as bad is $1-p$, where $0 < p < 1$. We assume that voters have the ability to identify whether a political leader is good or bad. However, we assume that investors can evaluate incumbents only by the given probabilities. Both parties are assumed to know the associated payoff-structure. Investors prefer to invest if the incumbent is good and to receive the risk-free premium if the incumbent is bad. Figure 5 demonstrates a full game with incomplete information.



Note: Figure 5 illustrates a decision tree of possible actions available to voters and investors in the case of incomplete information. At the initial node, the game is based on chance and provides the probability of a political leader being evaluated as good (p) or bad ($1-p$). The various decision nodes are represented by closed, colored circles, and portray the points in the game at which players make a decision. From each node, two branches emanate, where each branch represents an action that can be taken by the player who is to move at the node. Each branch is labelled with the corresponding action. The black nodes illustrate terminal nodes, at which points the game is over and nobody takes further actions. To each terminal node, the voters’ and investors’ payoff vectors are illustrated.

Figure 5. Full Game with Incomplete Information.

It is important to observe that the two nodes, denoted 1.1 and 1.2, in Figure 5 compose one information set for the investors. When investors make their initial investment decision, they are unaware of which situation they are currently in, or what situation they end up with. If the investors decide to invest they get the following expected payoff given the probabilities assumed:

$$p(g - (fc+vcL)) + (1-p)(-fc) \quad (2)$$

However, investors only invest if the expected payoff exceeds that of the risk-free investment reward (rf). This implies that investors invest if:

$$p(g - (fc+vcL)) + (1-p)(-fc) > rf \quad (3)$$

By solving the equation for p , we have that;

$$p > \frac{rf+fc}{g-vcL} \quad (4)$$

Equation 4 represents the value of p necessary for investors to decide to invest rather than taking the risk-free investment reward (rf) in the game of incomplete information. If the equation holds up, investors decide to invest in the first round.

Once investors make their investment decision, the voters reveal the valid quality of the incumbent. The character of the political leader is reflected in the voters' decision of keeping the current incumbent or changing the political leadership. If voters decide to preserve the current situation, investors decide to hold their investment in round 3. However, if a change occurs, the investors withdraw their investment to minimize their losses.

In contrast, if the value of p is given by;

$$p < \frac{rf+fc}{g-vcL} \quad (5)$$

investors take the risk-free investment reward (rf) in the first round, and the game is terminated.

An examination of the right side in Equation 4 and 5 reveals that investors' investment decision is fairly intuitive. Investors' willingness to invest is determined by the value of the risk-free investment reward (rf) and sunk cost (fc), against future gain (g) and future variable costs (vc).

It is reasonable to assume that investors already possess knowledge about the value of rf and fc in round 1. However, g and vc are future values and is therefore unknown to investors in advance. Future gains are realistically affected by several factors such as the incumbent currently in place, despite the assumption that future gains (g) are fixed. As the variable cost is the only factor in these equations that fluctuates depending on voters' decision in the election, this factor is uncertain, and arguably of most importance with reference to Rodrik (1989).

It is right to object that additional variables affect the future cost of an investment. However, the complex essence of the inquiry is demonstrated in this section. The section additionally illustrates the benefit of using a game theoretical model to isolate variables and thereby identify the possible interaction between them. Furthermore, the game theoretical model identifies the critical point where investors are no longer willing to invest due to uncertainty. This implies that investors ought to receive a higher expected return to take on the additional risk. Certainly, investors differ in their risk-profile, which might induce some investors to accept lower levels of p . This uncertainty additionally provides investors with an incentive to ascertain the true value of p , or at least the best possible estimate in order to make investments that correspond to their risk-profile.

4. Literature review

Political events in democratic electoral systems can cause abnormalities in some financial markets. Bernhard and Leblang (2006) are among authors who illustrate this. Bernhard and Leblang (2006) analyze several countries to identify the relationship between political changes and financial markets. According to the authors, market returns are reduced, while volatility is increased, during unpredictable political changes. The aim of this chapter, is to provide the reader with an understanding of the interaction between financial markets and political changes. We divide our literature review into three main parts. The first section of the chapter considers the fundamentals of financial markets, supplemented by standard assumptions. The second part combines financial markets with political change. The final section provides a discussion of institutions and partisanship, which are two theories on the effect political changes are assumed to have on financial markets.

4.1 The Basics of Financial Markets

Our thesis contributes to financial science, and correspondingly we find it appropriate to portray the fundamentals of financial markets to better understand how markets respond to a change in political leadership. The section is furthermore supplemented by some economical assumption with regards to financial markets.

According to Bragues (2010), financial markets are used to commerce financial goods.⁵ Bragues (2010) claims that financial commodities contribute to human satisfaction indirectly, and that prices of financial commodities are influenced by external factors. In contrast, real goods cover fundamental human needs (p.13). Stock markets are commonly used in previous literature to measure the reaction of financial markets to a political election, as stock markets has the ability to reflect information efficiently. “A stock is a type of security that signifies ownership in a corporation and presents a claim on the part of the corporation’s assets and earnings” (Investopedia, 2012). When investors expect growth in a market or particular company, the prices on the relevant stocks increase. In contrast, prices decline when expectations are bad (Investopedia, 2017). This allows us to observe if a certain market is

⁵ Examples of financial goods include bonds, derivatives, and stocks (Bragues, 2010, p.13).

positively or negatively affected by an event. Another characteristic of the stock market is volatility. “Volatility refers to the degree to which financial prices fluctuate. Large volatility means that return fluctuate over a wide range of outcomes” (Visser, 2009, p.17). According to Visser (2009), returns are unpredictable. He claims that stock prices are impossible to predict, and investors cannot with certainty know if prices will increase or decline in the future. However, investors can use volatility in attempt to forecast stock prices, as large changes tend to be followed by large changes, and small changes tend to be followed by small changes.

4.1.1 Assumptions about Financial Markets

According to the efficient market hypothesis (EMH), the price of a security always reflects all available information in the market.⁶ The efficient market hypothesis does, however, not apply in our capital system, as the theory implies a market (i) with no transaction costs, when trading a security, (ii) all market participants have access to all relevant information, and (iii) “the implication of current information for the current price and distribution of future prices of each security” is agreed upon by all participants (Malkiel and Fama, 1970, p. 387). However, this does not indicate that markets must meet the listed requirements to be efficient. According to Malkiel and Fama (1970), “the market may be efficient if “sufficient numbers” of investors have ready access to available information. Disagreements among investors about the implications of given information does not in itself imply market inefficiency, unless there are investors who can consistently make better evaluations of available information that are implicit in market prices” (p.388). Furthermore, Malkiel and Fama (1970) find that the stock market is efficient with respect to its ability to adjust according to relevant information.

The Challenger disaster on January 28, 1989 is a good example of market efficiency, and stock markets’ ability to adjust when exposed to new information.⁷ After several months of investigating the involved mechanical companies, it was discovered that Marton Thiokol caused the error. Correspondingly, the amount of trading was unprecedented and Marton Thiokol’s stock price dropped sufficiently. The first day stock return was -11,86%. Other

⁶ A security price reflecting all available information in the market is referred to as an optimal situation.

⁷ The Challenger disaster refers to a space shuttle which exploded due to a mechanical error (Maloney and Mulherin, 2003).

companies also experienced a stock price decrease after the disaster, but not to the extent of Marton Thiokol (Maloney and Mulherin, 2003). Conversely, other observations are difficult to explain under the efficient market hypothesis. One example is Warren Buffet, who has earned a positive abnormal return over 50 years. The principles of Buffets strategy are to invest in businesses that are easy to forecast, that have good management, and strong fundamentals (Chirkova, 2012).

The calendar effect is another common market theory, which implies seasonal regularities in stock returns. By analyzing data over time, researchers find evidence of systematic abnormal stock returns related to the day of the week, the week of the month, the month of the year, the turn of the month, and holidays. The January effect and the Monday effect are two well-known illustrations of the calendar effect. According to the January effect, stock prices are suppressed in December due to the tax loss selling, before they bounce back in January. The Monday effect results from weekends, where prices tend to fall on Mondays. Lakonishok and Smidt (1988) find support for the January effect and the Monday effect. They argue in their paper that “DJIA, returns are persistently anomalous over a 90-year period around the turn of the week, around the turn of the month, around the turn of the year, and around holidays” (Sullivan, Timmermann, White, 2001, p.282).

Another assumption in financial markets, is that investors are risk averse. Risk aversion implies that investors have concerns regarding the mean value and variance in their portfolio returns when they invest. Investors prefer minimum variance in their portfolio, in other words they want to have the smallest possible variance in their returns given the expected return (Fama and French, 1996). The theory indicates that investors avoid taking risk when they invest, unless the risk is associated with higher returns. Accordingly, shares that possess higher risk also have a higher expected return. There are parallels between financial markets, where investors are risk averse, and a countries politics. An investor with dislike for risk in financial markets probably reacts negatively to political uncertainty and changes as well.⁸ In a democratic society, uncertainty and risk can derive from a change in policy reforms after an election, and this in turn can be reflected in financial markets. This indicates that financial markets and politics are interconnected (Bragues, 2010, p.4).

⁸ Demonstrations, war, and elections are examples of political factors that can create uncertainty (Bragues, 2010, p.4).

4.2 Political Change and Financial Markets

The relationship between political events and financial markets is discussed on several occasions in previous literature. Studies analyze the link between stock markets and political crises, with mixed results. Fergusson (2008) argue that major political events, such as the French Revolution, originates in stock market bubbles (p.3; Santiso, 2013, p.14). Frot and Santiso (2010) claim that in the past decades, the majority of extensive financial crises in developing countries correspond to electoral cycles.

Rodrik (1989) relates policy uncertainty to the response of private investments. Rodrik (1989) argues that because of uncertainty about the consequences of future policies, private investments are affected by policy reforms. According to Rodrik (1989), reforms can be harmful if they promote doubt as to their durability, even if they are otherwise reasonable. Rodrik (1989) clarifies that investments are not accessible when policy uncertainty exists; and correspondingly, without investments, reforms are less likely to be successful.

Bittlingmayer (1998) looks at Germany before and after World War 1 to investigate the relationship between stock markets and political uncertainties. This offers a natural experiment as major political events have a clear impact on stock prices. He furthermore presents the theory of investments under uncertainty, which implies a simultaneous increase in volatility and reduction in output as a result of political uncertainty. In correspondence with this theory, Bittlingmayer (1998) finds that volatility increased in the transition from Imperial – to Weimar Germany, as well as a fall in the stock market return. Bittlingmayer's finding is supported by evidence from the Great Depression. Voth (2002) argues that during the Great Depression, stock market volatility reached extreme levels. He further presents evidence that substantial parts of stock market volatility in this period was caused by political uncertainty.

However, political uncertainties are not only caused by acute situations. More predictable events, like democratic elections, are proven to affect the stock markets as well. Mattozzi (2004) argues that political uncertainty is a common abnormality inherent to the political process. Generally, it arises as opposing presidential candidates implement different policies if elected, which makes the election results uncertain. Mattozzi (2004) provides evidence that political uncertainty can be hedged using stocks currently traded in the U.S stock market. By selecting stocks predicted to shift differently with respect to general market movements, Mattozzi (2004) constructs two “presidential portfolios”. The results demonstrate that the excess returns from

the portfolios are significantly related to changes in the electoral polls, leading Mattozzi (2004) to conclude that they can be used as an instrument to insure against political uncertainty.

Bernhard and Leblang (2006) explain and empirically assess under which circumstances financial markets are affected by political events. Bernhard and Leblang (2006) argue that a government's economic policies are determined by political processes such as elections and cabinet formations. This impacts the surroundings for investment. Because of this, investors and financial actors are anxious to predict political outcomes, as experienced investors can re-allocate their portfolios in favor of a changed policy condition by forecasting political results (p.1). Bernhard and Leblang (2006) use a variety of theories and models from the financial literature, and find that during unpredictable political changes, the market returns are reduced, while volatility is increased.⁹ They also find that an upcoming election reduces the political predictability for the market (p.9). Berkman and Jacobsen (2006) investigate international crises between 1918-2002, and find that the world market stock return is reduced by approximately four percent per annum during political crises. Furthermore, Berkman and Jacobsen (2006) argue that international crises strongly affect volatility, as well as mean returns.

Literature also provides recognition on how political changes affect companies. Faccio and Parsley (2007) argue that political events affect firms who are closely linked to the associated politicians. By closely linked, Faccio and Parsley (2007) indicate firms that have contributed to the politician's campaign and/or have personal or family ties with the officeholder. In their event study approach, Faccio and Parsley (2007) analyze how the sudden death of a politician influences firms located in the deceased politician's home district. In a study of 122 sudden deaths worldwide, they find an average price drop of -1.7% around the news of the passing. Their results furthermore show a significant and larger, negative effect on firm value when companies have close ties to the deceased politician. Correspondingly, firms related to the deceased politician's successor experience a significant positive abnormal return.

Julio and Yook (2010) compare corporate behavior around national election to analyze how corporate investment changes with fluctuations in political uncertainty. According to the authors, corporate decisions are affected by election outcomes as they interfere with monetary and trade policy, industry regulations, and taxation. Julio and Yook (2010) find that during the

⁹ Models include efficient markets hypothesis (EMH), capital asset pricing model (CAPM), and arbitrage pricing theory (APT) (Bernhard and Leblang, 2006).

election years, firms' investment expenditures are reduced on average by 4,8% compared to non-election years.

4.3 Institutions and Partisanship

According to Bernhard and Leblang (2006), previous studies on how financial markets are affected by democratic political processes show extensive variation. Attempts to explain this variation in market responses is mostly focused around two main topics; institutions and partisanship. The authors argue that the structure of institutions influences how investors apprehend the consequences of a potential political change. As for partisanship, these arguments assume that parties differ in their political priorities (p.5).

4.2.1 Institutions

Tsebelis (1995) argues that various democratic systems provide different forms of government. According to Vuchelen (2003), differences in democracies' electoral system develop different forms of uncertainty for financial actors, and furthermore, the electoral system impacts the effect political changes have on stock markets. The author claims that efficient stock markets respond to information about future economic policies, and that such information can be derived from political events such as elections. In countries characterized by proportion representation, governments are generally multi-party coalitions whose structure is challenging to predict based on election results (Vuchelen, 2003). Vuchelen (2003) debates that the election results do not allow for a straightforward prediction of the new government. In these systems, the main political event is not the election, but the composition of the coalition. This implies a variable time lag between the election and the stock market reaction. Conversely, the electoral system of the United States portrays a two-party system with majority representation, and therefore a single-party government (Vuchelen, 2003). According to Vuchelen (2003), future economic policies can be predicted by the election results. However, stock prices are only affected by election results that accommodate unexpected information which impact investors view on these policies. The author argues that U.S elections generate news to the extent where the results are unexpected. In these types of systems, Vuchelen (2003) claims that election are important political events as the outcome result in absence of uncertainty surrounding future policies. This

implies that “uncertainty exists relative to the political event (the election results), but not relative to the time of the event” (Vuchelen, 2003, p.90).

Institutional theories argue that the composition of institutions establish constraint on the possible changes a new leader can make, and how investors perceive the effect of this potential change in policy. Furthermore, institutional obligations that limit policy discretion, like an independent central bank or an exchange rate commitment, convince market actors of minimal adjustments in the event of a change in political leadership. Institutions that protect economic policy from the direct control of elected politicians thereby improve policy stability and reduce uncertainty, which should reduce market reactions to political events (Bernhard and Leblang, 2006, p.5). Bernhard and Leblang (2006) argue that electoral systems with proportional representation are more likely to limit fluctuations in policy than single-party governments, and thereby limit price variability in the market (p.5).

According to Bittlingmayer (1998), financial markets’ reaction to political changes are affected by electoral systems. He finds that stock market returns declined in the transition from Imperial – to Weimar Germany. The rationale is based on the fact that Weimar Germany was characterized by a proportional electoral system, which created a divided political prospect.

4.2.2 Partisanship

The partisan approach refers to how markets respond to changes in government policy, where the theory claims that political parties address themselves to voters with different preferences (Vuchelen, 2003). Vuchelen (2003) argues that investors anticipate a more apparent supply-oriented policy from right-wing parties, thus implying stable, if not rising, stock prices. However, policy changes are uncertain, and this uncertainty varies over time, and this by itself affects stock prices negatively.

Bernhard and Leblang (2006) claim that right-parties are favored by the middle- and upper class, whereas left-parties appeal to the working class (p.5). The authors argue that investors alter their portfolio when left-wing parties are elected to government, as a means to hedge against the inflationary consequences of liberal policies (p.6). Bernhard and Leblang (2006) assume that policy variabilities induce financial actors to prefer right-wing parties to left-wing parties, and thereby react positively to a change towards the political right compared to a change towards the political left (p.5).

The United States distinguishes between two parties; democrats and republicans. The democratic party is liberal and left-leaning and are associated with politicians such as Obama and Clinton. Democrats generally support progressive taxes to fund government, and argue that government regulations are necessary for consumer protection.¹⁰ Furthermore, democrats strive to reduce unemployment. Conversely, republicans are conservative and right-leaning, and are affiliated with politicians like Bush and Trump. Republicans are generally opposed to increased taxes and argue that a “flat tax” should apply.¹¹ In addition, right-parties argue that businesses should sustain in a free market without the governments influence, in accordance with Darwinian capitalism (Diffen.com, 2018).

Researchers assess the markets’ response to changes in the partisanship of the incumbent. Hibbs (1997) demonstrates that the general perception is that investors favor right-wing candidates that are anticipated to care more about inflation, which benefits capital owners. Santa-Clara and Valkanov (2003) conduct an empirical analysis of the relation between presidential elections and the stock market. They find that the excess return in the stock market is higher under a democratic presidency compared to a republican presidency in the U.S. They furthermore point to previous research that illustrates a slower GDP growth during republican presidential mandates, and that democratic administrations are associated with significantly higher inflations rates.

Leblang and Mucherjee (2005) construct a model of speculative trading to examine how the mean and volatility of stock prices is affected by government partisanship. Conducting daily and monthly data from U.S and British equity markets between 1930 and 2000, the authors find a higher mean return and volatility under a right-wing incumbent, also when traders expect the right-wing party to win elections.

Jensen and Schmith (2005) suggest that stock market returns increases when political events, such as the election of a politician, is expected to have a positive impact on the economy and/or specific firms. Conversely, political events that are envisioned to have a negative impact reduce stock market returns. The 2002 Brazilian election of president Luiz Ignacio de Silva (Lula) is a

¹⁰ “A progressive tax system is one where high-income individuals pay taxes at a higher rate” (Diffen.com, 2018).

¹¹ A «flat tax» refers to the same tax rate for everyone, regardless of their income (Diffen.com, 2018).

recurring example in literature for evaluating this hypothesis (Jensen and Schmith, 2005, Campello, 2007; Santiso, 2013). Prior to the 2002 presidential election, numerous financial actors, together with current President Cardoso, cautioned that Lula as the left-wing candidate would generate economic problems and financial crisis. As financial actors feared Lula's victory, Goldman Sachs even developed a model designed to estimate the probability of Lula winning the election. The model was named the "Lulameter" and was based upon prices in the currency markets (Campello, 2007). Campello (2007) acknowledges the abnormality of the 2002 election by comparing the behavior of the financial markets with the behavior found during the presidential election of 1994, when Cardoso was elected. During the campaign period in the 1994 election (January-October), the S&P Latin America rose by 25%, while the S&P Brazil increased by 94% in the same period. During the 2002 campaign of Lula, the numbers was -8% and -52%. Campello (2007) illustrates the difference in return using two graphs and thus provides great awareness with regards to the expected influence of the presidential candidates on the Brazilian economy, and more generally on the relation between political elections and stock market returns.

Santiso (2013) investigates how stock markets are affected by democratic elections. He argues that between 1927-2000, the stock market return was higher under a democratic president, compared to a republican president, in the United States (p.14). Furthermore, Santiso (2013) demonstrates that all Latin American crises during the past three decades occurred during election years (p.11).

5. Hypothesis Development

A change in political leadership involves new policies and thus imply uncertainties. The political uncertainty is influenced by both institutional factors and partisan shifts, and is reflected in the stock markets. The objective of this section is to hypothesize how the election of Donald Trump affects the U.S stock market. Based on the theoretical framework and literature review, we generate four main hypothesizes (H1a-d). To strengthen our analysis, we develop additional supporting hypothesizes (H2a-d), that hopefully provide us with explanatory arguments for the assumed relationship in H1.

The potential for change involves risk due to variable costs. Because of this we expect investors to be more careful during election periods, and reduce their investment in relevant areas. Since democratic elections are announced, investors are, however, aware that changes are to come. It was common knowledge that Obama could not be reelected, and thus the political leadership had to change. This implies that investors could wait until it became more clear who would be in charge, thus reducing mean returns as fewer invest.

Furthermore, the 2016 presidential election was one of the most divisive and controversial elections in U.S history. This indicates even higher uncertainty as investors find it difficult to predict the value of p . Again, this implies a reduction in investments according to the assumption of risk averse investors, thus reducing the mean return in the stock market.

Jensen and Schmith (2005) argue that stock market returns increases when the election of a politician is expected to have a positive impact on the economy and/or specific firms. Conversely, politicians that are envisioned to have a negative impact reduce stock market returns. First of all, Trump promised to reduce taxes, which of course are of interest to investors. However, investors invest based on their expectations about candidates' assessment of the incumbent. It is reasonable to assume that the population share the interest of lower taxes. By rebuilding the U.S military and increasing the size of the army, marine corps and navy, the defense sector is likely to experience higher mean returns. Also, Trump's plan on reducing health insurance expenses for citizens imply an increase for the health care sector. Despite this, Trump also made several controversial promises. A promise that was widely discussed was banning Muslim entry to the U.S, which arguably have a negative impact on the stock prices of American airlines with international routes.

We expect the change in political leadership to increase the mean return in health care sector and in the defense sector, and reduce the mean returns of American airlines that have international routes.

Based on the discussion we hypothesize that:

H1a: The election of Donald Trump will affect financial markets, leading to a higher mean return in the stocks of the health care sector.

H1b: The election of Donald Trump will affect financial markets, leading to a higher mean return in the stocks of the defense sector.

H1c: The election of Donald Trump will affect financial markets, leading to a lower mean return in the stocks of American airlines with international routes.

H1d: The election of Donald Trump will affect financial markets, leading to a higher mean return in the stocks of a value-weighted portfolio consisting of the health care sector, the defense sector, and the flight travel sector.

Furthermore, we argue that single-party governments are more predictable than proportional systems, as voters' decisions is limited to two parties. This implies than investors have a more accurate forecast of voters' evaluation of the incumbent in place. Based on this, investors have more knowledge of the value of p , and correspondingly, less uncertainty. However, in the single-party system, policies and regulations can happen abrupt, which increases the uncertainty for investors. Additionally, inconsistency in information can make it difficult to predict the election outcome. We therefore find it valid to argue that a proportional system is more stable through election periods compared to single-party governments. Accordingly, single – party governments imply higher risk associated with investing. However, higher risk is related to higher returns.

Empirical studies show that stock returns are higher under democratic presidents compared to republican presidents in the U.S. Furthermore, a change in political leadership implies uncertainty and thereby a cost on investments. However, literature also debate that right-wing parties are associated with more market friendly policies compared to left-wing parties that increase taxes and business regulations. Therefore, changes to the political left imply an increase in the variable costs. Prices on the stock market therefore reflect the higher variable

costs with lower mean returns. Accordingly, right-wing parties are assumed to increase the returns in the stock market.

Based on this discussion, we further hypothesize that:

H2a: The election of a Republican President will affect financial markets, leading to a higher mean return in the stocks of the health care sector.

H2b: The election of a Republican President will affect financial markets, leading to a higher mean return in the stocks of the defense sector.

H2c: The election of a Republican President will affect financial markets, leading to a higher mean return in the stocks of American airlines with international routes.

H2d: The election of a Republican President will affect financial markets, leading to a higher mean return in the stocks of a value-weighted portfolio consisting of the health care sector, the defense sector, and the flight travel sector.

By testing these supplementing hypothesizes we get a more accurate picture of whether Trump, or the republican policies, are the cause of potential changes in stock prices.

6. Data

Various methods are used by researchers to measure the performance of financial markets in preceding literature. We utilize stock market data to construct the dependent variable in our analysis, as stock markets are a good proxy for investors when evaluating the market.¹² Stock markets reflect stock prices, which make stock markets a prospect for future prices (Campello, 2007). Furthermore, stock markets' ability to adjust according to relevant information, is a useful comprehension in measuring how political changes affect financial markets. In addition, stock markets provide access to abundant data compared to other financial measurements, as it is available for long periods of time.

Previous studies differ in their utilization of data. Eckbo and Ødegård (2015) use weekly data, while others apply annual data. We recode the stock market data into monthly return as recommended by Frot and Santiso (2013). They argue “given that investors quickly update their expectations; we consider it to be substantial advantage to have access to monthly data” (p.31).

To assess how the U.S stock market is affected by the election of Trump, we apply the Fama and French three-factor model. The three-factor model implies constructing portfolios of individual stocks and accordingly compare the returns on the constructed portfolios to a market index. A market index is “an aggregate value produced by combining several stocks or other investment vehicles together and expressing their total values against a base value from a specific date” (Investopedia, 2018). An index is computed of some weighted averages of individual stocks, and can be estimated by combining the top 100 companies in the stock market together into one index value, for instance (Valdez and Molyneux, 2013). This illustrates that market indexes are expected to represent the value of an entire stock market. Investors can thus track movements in the stock market value over time and use it as a benchmark against their own portfolio returns. We collect monthly data on individual stocks from the database Eikon, as Eikon provides access to sufficient real time market data, as well as fundamental data, analytics and trading tools. We assemble a value-weighted portfolio for each sector specified in the hypothesizes; and these are the health care sector, the defense sector, and the flight-travel sector. We also construct a value-weighted portfolio consisting of all three sectors. All

¹² A dependent variable is what you measure in the experiment and what is affected during the experiment. It is called dependent because it depends on the independent variable (USCLibraries, 2018).

portfolios are adjusted for fees and dividends. Previous studies apply Kenneth French's homepage as a database for the market index, and we find it useful to utilize the same website to obtain an index and market return that correspond to preceding literature. We apply a market portfolio labeled "Fama/French Benchmark portfolios", which is designed for investors seeking benchmark for asset class portfolio returns. The index is applied by Fama and French, as well as other academics, when resolving the cross section of returns with the three-factor model. The benchmark factors summarize (1) the excess return from the market ($R_m - R_f$), (2) the performance of small stocks relative to big stocks (SMB), and (3) the performance of value stocks relative to growth stocks (HML). The excess return from the market is the value-weighted return on all NYSE, AMEX and NASDAQ stocks minus the one-month Treasury bill rate. The portfolio does not include trading costs, fees, or taxes (French, 2018).

Trump was elected president on November 8, 2016. However, it is reasonable to assume that the stock markets already reflect the possibility of Trump's presidency at this date, as he already in June 2015 announced his presidential campaign. Based on this we use an estimation period from December 2013 until December 2017, to capture the expectations before the change, as well as slow reactions when policy is presented and executed. Furthermore, we develop identical portfolios but during previous time periods, in order to test our supporting hypotheses. These portfolios have a time period from December 1997 to December 2001, and from December 2005 to December 2009. By calculating the same returns under Bush and Obama, we obtain greater evidence to whether potential abnormal returns are related to Trump or his political party. This implies that the data begin in December 1997 and goes until December 2017. However, data on American airlines with international routes is not available in Eikon prior to 2009, thus excluding this supporting hypothesis from the analysis.

We apply the T Rowe Price Health Science Fund (PRHSX) as the portfolio for the health care sector. The fund contains 115 stocks, and the portfolio provides an observation number of 48 for each specified time interval. The fund has a mean of 0,006 from 1997-2001, and an associated standard deviation of 0,059. From 2005-2009, the portfolio mean is 0, while the standard deviation is 0,03. The mean from 2013-2017 is 0,005 with a standard deviation of 0,036.

For the defense sector, we apply the Fidelity Select Defense and Aerospace Portfolio (FSDAX). The portfolio includes 39 stocks, and the number of observations for the portfolio is 48 for each specified time period. From 1997-2001 the portfolio mean is 0,001 and the corresponding standard deviation is 0,039. Furthermore, the sector portrays a mean of -0,004 from 2005-2009,

and a standard deviation of 0,036 for the same time interval. From 2013-2017, the mean and standard deviation is 0,006 and 0,026, respectively.

Table 3 presents the top 10 holdings for the health care sector and the defense sector, as well as the corresponding benchmark.

Table 3. Top 10 Holdings for the Defense Sector and the Health Care Sector.

Note: The table illustrates the top 10 holdings for the defense sector and the health care sector, as well as the corresponding benchmark. The top 10 holdings for each portfolio are collected from Morningstar as of 08.03.2018, and is portrayed by the center column. The health care portfolio is divided with 90,97% in health care and 1,03% in technology. The top 10 holdings make up 34,63% of the total assets in the T Rowe Price Health Science Fund. The defense portfolio is divided with 92,09% in industrial firms and 7,79% in technological firms. The top 10 holdings make up 70,21% of total assets in the Fidelity Select Defense and Aerospace Portfolio. The top 10 holdings are listed by size.

Sector	Top 10 Holdings	Benchmark
Health Care (PRHSX)	UnitedHealth Group Inc. Becton, Dickinson and Co. Intuitive Surgical Inc. Vertex Pharmaceuticals Inc. Cigna Corp. Sage Therapeutics Inc. Anthem Inc. Stryker Corp. Agilent Technologies Inc. Alexion Pharmaceuticals.	Fama/French Benchmark Portfolios
Defense (FSDAX)	Boeing Co. Northrop Grumman Corp. General Dynamics Corp. United Technologies Corp. Teledyne Technologies Corp. TransDigm Group Inc. Huntington Ingalls Industries Inc. Raytheon Co. Hexcel Corp. Spirit AeroSystems Holdings Inc.	Fama/French Benchmark Portfolios

For American airlines with international routes, we construct a value-weighted portfolio consisting of 10 stocks and 48 observations. Table 4 provides a summary of the airlines included in the analysis in alphabetical order, and how the various airlines are weighted in the portfolio.

Table 4. Airline Portfolio Weights, Mean Return, and Standard Deviation.

Note: The table illustrates the 10 airlines included in the value-weighted airline portfolio, and the associated mean return, standard deviation and weights. All airlines provide international routes and are listed in alphabetical order in the left column of the table. The mean return and standard deviation of each airline is portrayed in the center left column and the center column, respectively. The mean return and standard deviation of the value-weighted portfolio is listed in the bottom row “Total”. Market capitalization is obtained from Morningstar as of March 2018, where B refers to “billion dollars”. The right column represents the market capitalization for each airline expressed as a percentage of total market capitalization, and portrays how the various airlines are weighted in the value-weighted airline portfolio. The numbers are rounded to three decimals.

Airlines	Mean Return	Standard Deviation	Market Capitalization	Percent
Alaska Airlines	0,018	0,084	\$7,97B	5,44%
American Airlines	0,020	0,104	\$26,53B	18,12%
Atlas Air	0,013	0,104	\$1,57B	1,07%
Delta Air Lines	0,018	0,077	\$39,65B	27,07%
Hawaiian Airlines	0,039	0,136	\$1,87B	1,28%
Jetblue Airways	0,024	0,091	\$7,08B	4,83%
Southwest Airlines	0,029	0,080	\$35,1B	23,97%
Spirit Airlines	0,004	0,093	\$2,93B	2,00%
United Airlines	0,017	0,098	\$21,2B	14,48%
Virgin America	0,024	0,131	\$2,55B	1,74%
Total	0,02	0,07	\$146,45B	100%

According to Table 4, Delta Air Lines has the highest market capitalization, and accordingly constitute the highest percentage of the portfolio. Conversely, Atlas Air has the smallest market capitalization. As the value-weighted airline portfolio consists of a restricted number of airlines, we argue for a potential survivorship bias, as multiple airlines are previously merged and acquired. A survivorship bias can create challenges in our empirical analysis, as the bias can distort performance figures significantly. Survivorship biases tend to distort data in one

direction, generating results that appear better than they actually are. Fund closures is often a consequence of underperformance, and the airline portfolio's performance can thus be overstated and lead to erroneous investment decisions. As the airline portfolio cannot be compared to other presidential periods besides the 2013-2017 interval, we obtain less information compared to the other sector portfolios. Nevertheless, the portfolio can provide relevant information on Trump's effect on flight travel. Table 4 further illustrates that Hawaiian Airlines have the highest mean and standard deviation.

The portfolio consisting of all three sectors has 48 observations for each specified time interval. The mean is -0,03, and the standard deviation is 0,004 from 1997-2001. From 2005-2009, the mean of the combined portfolio is -0,002, whereas the associated standard deviation is 0,002. Lastly, the combined portfolio has a mean of 0,018 and a standard deviation of 0,062 from 2013-2017.

7. Methodology

The aim of this chapter is to portray the methodology for the thesis. Inspired by Eckbo and Ødegård (2015), we apply the Fama and French three-factor model as an evaluation method to test the aspect of how political changes affect financial markets. Eckbo and Ødegård (2015) use the Fama and French technique to determine whether a specified stock portfolio outperform the market based on empirical measurements such as the Sharpe ratio, information ratio and alpha. By applying this method, we analyze if the monthly return on the constructed stock portfolios generate abnormal returns compared to the market return. Accordingly, this provides evidence on how the election of Trump affects the U.S stock market.

7.1 The Capital Asset Pricing Model

The aim of this section is to provide the reader with a fundamental model for determining the future prices of securities. This contributes to a better understanding of the method applied in our empirical analysis. The classic Capital Asset Pricing Model (CAPM) designates as a predecessor to the Fama and French three-factor model. The intuition of CAMP is as follow: “CAPM assumes that it is costless to trade in the stock market and all investors possesses the same information. Thus, the well-diversified market portfolio is used by all investors to achieve exposure against priced risk. Accordingly, expected return on each security become proportional to the security’s exposure of fluctuations in the market portfolio, referred to as the security’s beta” (Eckbo and Ødegård, 2015, p. 353). The capital asset pricing model formula is given by Equation (6):

$$r_a = r_f + \beta_a (r_m - r_f) \quad (6)$$

r_f is the risk free rate, and is the same as r_f in the game theoretical model. r_m is the expected market return, and by subtracting the risk free rate we obtain the market premium. The market premium measures the additional return investors expect in return for extra risk taken (Sharpe, Alexander and Bailey, 1995, p.276).

The intuition of the CAPM can be portrayed in a simple regression model, called the market model. The market model, developed by Sharpe (1963), is used extensively by empirical researchers to examine the impact of an event on shareholders' wealth or for testing market efficiency (Corhay and Tourani Rad, 1996). The market model is illustrated by Equation (7):

$$r_p^e = \alpha + \beta r_m^e + \varepsilon_p \quad (7)$$

where $r_m^e = r_m - r_f$ is the excess return on the value-weighted market index (return minus the risk free rate). α is the intercept (the part of the average r_p^e , that cannot be explained by the variations in r_m^e), β is the slope of the regression line, and is a measure of the sensitivity of r_p^e . ε_p is the error term with expectation zero and finite variance. It is assumed that ε_p is uncorrelated to r_m (Eckbo and Ødegård, 2015).

Based on this, we provide a concrete definition of systematic and unsystematic risk. By taking the variance on both sides of the CAPM regression model, we get the following expression, where the intercept's variance and risk-free rate are both zero;

$$\sigma^2(r_p) = \beta^2 \sigma^2(r_m) + \sigma^2(\varepsilon_p) \quad (8)$$

Where $\beta^2 \sigma^2(r_m)$ is the systematic risk, and $\sigma^2(\varepsilon_p)$ is the unsystematic risk.

Under CAPM, the slope coefficient β in the regression line corresponds with the theoretical definition of priced risk per unit of market risk; $\beta = \sigma^2(r_p, r_m) / \sigma^2(r_m)$. Let $Cov(r_p, r_m)$ be the covariance between the portfolio return and the market return. The slope coefficient in the regression line is thus written as $Cov(r_p, r_m) / \sigma^2(r_m)$, which is the theoretical definition of systematic risk. This illustrates that systematic risk are estimated by using clean observable values such as historical time series of r_p and r_m . Therefore, the model only consists of one risk factor (the market), and is accordingly labeled "the one-factor model" (Eckbo and Ødegård, 2015).

Even though the market model is widely accepted as the standard model, it is also criticized. One assumption underlying the model is that the coefficients are constant over time, which

conflicts with the presumption that market returns vary over time (Corhay and Tourani Rad, 1996).

Modern researchers provide an extension of the number of risk factors. The multifactor models have the same linear form as CAPM but conversely returns are added on broad portfolios that are assumed to represent own risk factors in addition to the market (Eckbo and Ødegård, 2015).

7.2 Event Study

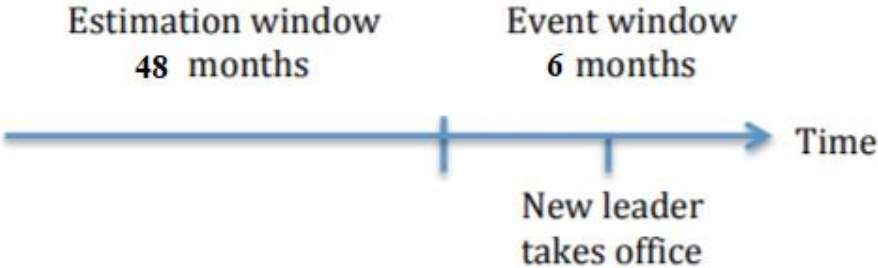
An event study is an empirical analysis that assesses how stock prices (returns) are affected by a given event (Agrawal and Kamakura, 1995). Event studies are extensively applied in both political – and economic science, where the method is particularly associated with elections. Furthermore, event studies are utilized in previous literature to determine the relation between political events and financial markets (Bernhard and Leblang, 2006; Campello, 2007). The intuition underlying the model is to measure how the market performs in the absence of the event. The standard procedure for evaluating this is to compute the abnormal/unexpected return of the underlying securities by comparing the actual return realized on the occurrence of the event with the normal return, in example the return that is expected in the absence of the event (Campbell, Lo and MacKinlay, 1997). Event study methodology is based on the theory of efficient markets. The efficient market hypothesis states that stock prices reflect the impact of an event immediately. Stock returns are therefore reliable indicators of the market's reaction to an event (Agrawal and Kamakura, 1995).

The first step in an event study is to identify the event of interest and the corresponding event date. The event date is defined as the announcement date of the event, or “day 0” (Sitthipongpanich, 2011). Our research question poses a challenge in identifying the event date, as numerous dates might have an impact. Trump announced his presidential campaign in June 2015 and became the official Republican nominee for President in July 2016. However, he was not elected president until November 8, 2016, and he did not take office until January 2017. Furthermore, it is reasonable to assume that the official announcement followed initial rumors and that each of these dates are associated with released information. Still, we find the election date, November 8, 2016, to be the appropriate event date to use.

Additionally, we identify the timeline of the event study. This implies identifying the event window, as well as the estimation period. The event window is a period of time around an event

and examines how stock prices (returns) are affected by the event. Several studies apply short event windows such as a 2-day (-1,0) period or a 3-day (-1,1) period (Lumner and McConnel, 1989; Bruner, 1999; Small et al., 2007). Conversely, long-term event windows can have a duration of months or years before or after an event. Long-term event windows are also reported in several papers. Ritter (1991) and Hertz et al. (2002) utilize a 36-month event window, while Gregory (1997) and Teoh et al. (1998b) use a 60-month event window (Sitthipongpanich, 2011). The estimation period has to cover a period over which the normal returns are estimated. The duration of the estimation period is set to reflect the expected frequency of data availability and is relatively long (Sitthipongpanich, 2011).

According to Campello (2007), the precision of an event study is dependent on an “adequate proportion between the size of the event window and estimation period” (p.10). When determining the event window, we find it advantageous to capture the moment when the candidates’ chances to win is possible to predict with some accuracy, as well as the month in which the event occurs. Arguably, the event window should begin in July 2016 as this is the month when Trump became the official Republican nominee for President. However, it is reasonable to assume that predicting pools already had Trump favored as the official candidate in the preceding month, June 2016. Based on this, we utilize an event window of 6 months, from June 2016 until November 2016. We apply a period of eight times the length of the event window as estimation period, as Campello (2007) suggests that an estimation window of this size is acceptable. The period of estimation is therefore 4 years from December 2013 until December 2017. Figure 6 illustrates the timeline of the event study.



Note: The figure illustrates the timeline of the event study. The bold arrow represents the estimation window of 48 months. The right vertical line illustrates the election of Trump, and the period between the two vertical lines represents the event window of 6 months.

Figure 6. Illustration of the Timeline of the Event Study.

In order to calculate the abnormal returns from the event, we identify which normal return model to apply and correspondingly estimate the expected returns. Based on their underlying assumptions, normal return models can be classified into statistical or economic models; with the latter being associated with more comprehensive theories of market pricing. The choice of model is widely discussed, with several options such as the market model, CAPM, the constant mean return model, and multifactor models. For each model both the bias and the accuracy of the normal return can differ, affecting the abnormal return measurements (Khotari and Warner, 2006).

Most research discredit using CAPM as a normal return model due to evidence on voluminous anomalies. Because of this, it was critical to discover a better and/or improved model. The exploration culminated on the Fama and French (1993) three-factor model, further modified by Carhart (1997). The admittance of the size and book-to-market factors is not adequately resolved in the literature. However, from the standpoint of event study analysis, this defect is not fatal. The size and book-to-market factors are essential to apply in measuring abnormal return, as the price performance associated with these factors is applicable to all stocks sharing those characteristics and not only firms affected by the event (Khotari and Warner, 2006). Based on this we apply the Fama and French three-factor model in detecting how the election of Trump affects the financial markets. The model adds two additional factors to CAPM and thereby increase the explanatory power of the model.

7.3 The Fama and French Three Factor model

The three-factor model, developed by Fama and French (1993), is commonly utilized to measure normal returns in event studies. Barber and Lyon (1997), Teoh et al. (1998b) and Hertz et al. (2002) are among authors who practice this method (Sitthipongpanich, 2011). According to the model “the expected return on a portfolio in excess of the risk-free rate $[E(R_I) - R_f]$ is explained by the sensitivity of its return to three factors: (i) the excess return on a broad market portfolio $(R_M - R_f)$; (ii) the difference between the return on a portfolio of small stocks and the return on a portfolio of large stocks (SMB); and (iii) the difference between the return on a portfolio of high-book-to-market stocks and the return on a portfolio of low-book-to-market stocks (HML)” (Fama and French, 1996, p.55).

The Fama and French three-factor model can be expressed mathematically as portrayed by Equation (9);

$$E(R_I) - R_f = b_i[E(R_M) - R_f] + s_iE(SMB) + h_iE(HML) \quad (9)$$

Equation (9) is, however, simplified by Eckbo and Ødegård (2015);

$$r_{pt}^e = \alpha_p + \beta_p r_{mt}^e + s_p SMB_T + h_p HML_t + \varepsilon_{pt} \quad (10)$$

Where $r_{pt}^e = r_{pt} - r_{ft}$ and $r_{mt}^e = r_{mt} - r_{ft}$.

The three-factor model suggests to capture considerable amounts of the cross-section variation in average stock return. Furthermore, it is useful in explaining industry returns, as well as representing a good explanation of returns on portfolios formed based on size and BE/ME. This, combined with how the model seems to mitigate the issue of anomalies related with CAPM, indicates that the model provides a better estimate for benchmark returns in event studies (Fama and French, 1996).

By applying the tree-factor model for long-term event studies, two alternative methodologies for calculating risk-adjusted performance is utilized. The first method is known as the buy and hold abnormal return (BHAR) approach, and the second is the calendar-time portfolios approach, also referred to as the Jensen's alpha approach. According to Khotari and Warner (2006), neither model is preferred over the other. The authors argue that both models can be subjected to misspecifications and neither possesses high power against economically interesting null hypotheses. Conversely, Fama (1998) claims that the BHAR approach is not an adequate model for controlling for cross-sectional correlation among individual firms, as the results produced may be less reliable due to overstated test statistics. Furthermore, the author argues that the cross-sectional dependence is eliminated by utilizing the Jensen's alpha approach, as it applies a time series of portfolio returns.

Based on this, we apply the three-factor model and the Jensen's alpha approach in the analysis of how the election of Trump affects the U.S. stock market.

7.3.1 The Jensen's Alpha Approach.

The objective of the three-factor model is to portray the fraction of the average portfolio return that is described by the sum of the risk premiums which appear from the exposure of the portfolio against estimated risk factors (Eckbo and Ødegård, 2015). Utilizing the Jensen's alpha approach involves constructing a portfolio comprising all firms experiencing the event of interest. As the number of firms is not consistently distributed over the sample period, the fraction of firms included in the portfolio is not constant through time. Accordingly, the portfolios are rebalanced each calendar month (Khotari and Warner, 2006). By subtracting the sum of the estimated risk premiums from the average return we obtain the fund's "alpha". Alpha represents the estimated intercept in a multifactor regression of portfolio returns against factor returns, and is thereby a measurement of the abnormal/excess return earned by the value-weighted portfolio (Eckbo and Ødegård, 2015).

The regression can obtain a positive, zero or negative alpha depending on the application of different risk factors. Portfolios generating statistically significant alphas produce positive abnormal returns if the alpha is greater than zero, or create a negative abnormal return if alpha is below zero (Eckbo and Ødegård, 2015).

Eckbo and Ødegård (2015) provide a useful insight into the three-factor model and alpha by illustrating a formula describing the price of a stock. According to the authors, Φ^m , is the information given in the market regarding future cash flow d_t , received by investors. The stock's market price on time t , is given by p_t , which is given by the present value of the expected value of this cash flow, conditioned on Φ^m :

$$p_t = \sum_{\tau=1}^{\infty} \frac{E(d_{t+\tau}|\Phi^m)}{(1 + E[r_{t+\tau}|\Phi^m])^{(t+\tau)}} \quad (11)$$

In Equation (11), $E[\cdot]$ indicates the expectation, and r is the stock's theoretical equal-weighted return (the capital requirement given its risk) (Eckbo and Ødegård, 2015).

The authors argue that p_t^* represents the stock's underlying substance value in a setting of full information. By applying this assumption, the market utilize the information Φ^m to estimate the value of p_t^* .

$$p_t \equiv E(p_t^*|\Phi^m) + \varepsilon_t \quad (12)$$

Where ε_t represents the estimation error. At any time, t , the estimation error can have a positive or negative value. A positive estimation error indicates a stock that is overvalued by the market, whereas an undervalued stock is portrayed by a negative estimation error. This corresponds to the alpha estimate, and captures to what degree the fund's portfolio reflects the ability to systematic identify temporary mispricing over time (Eckbo and Ødegård, 2015).

Ferson (2010) portrays abundant empirical literature conducted on the estimation of alpha. According to Ferson (2010), alpha-estimates are sensitive to the portfolio chosen to represent the risk factors. In applying various factor portfolios, the alpha factors correlate with each other. However, the author argues that the most important finding is that mutual funds in big samples have an average negative alpha. Furthermore, the alpha value of a given fund exhibit little persistence over time. The empirical literature also indicates that a small group of funds periodically have significant positive alphas. However, this is likely to be due to estimation errors or occurs by coincidence (Eckbo and Ødegård, 2015).

7.3.2 The Sharpe Ratio

A portfolio consists of both unsystematic – and systematic risk. The systematic risk can be described as an inherent risk in one or several priced risk factors, which provides an expected return $E(r_p^e)$ besides the risk-free rate. Unsystematic risk is risk that can be eliminated by increasing the number of securities held in a portfolio (Eckbo and Ødegård, 2015). However, only the market portfolio has the ability to be fully-diversified, as it contains a broad range of different company stocks. Sector portfolios are not diversified as the stocks included represents companies within the same sector, and these are affected in the same way by changes in the market. “This unsystematic risk is not priced in by the market, and will not give any expected return, as it can be eliminated through diversification” (Eckbo and Ødegård, 2015, p.348).

To determine if the election of Donald Trump provides abnormal returns, we account for the risk by analyzing the sector portfolios' risk-adjusted returns. In correspondence with Eckbo and Ødegård (2015), we use the Sharpe ratio (SR) to measure the portfolios' excess return per unit of total risk. The Sharpe ratio is given by Equation (13):

$$SR(r_p) = \frac{E(r_p^e)}{\sigma(r_p)} \quad (13)$$

In Equation 13, $r_p^e = r_p - r_f$, which is the portfolio return minus the risk free rate (excess return), $E(r_p^e)$ is the expected (excess) return, and $\sigma(r_p)$ is the standard deviation of the total return.

The Sharpe ratio is a measure of risk-adjusted return, and is utilized to evaluate the extent by which the performance of an investment portfolio exceeds the risk-free rate of return. The objective of the performance measurement is for investors to analyze the amount of excess return they obtain in relation to the level of additional risk taken to generate that return. However, without additional information, it is hard to judge the adequacy of a portfolio's Sharpe ratio. In order to provide an acceptable discussion of the risk adjusted return, the Sharpe ratio of a fund has to be compared to other fund's estimated Sharpe ratios. A higher Sharpe ratio is preferred, as a higher ratio indicates that investors can expect to receive higher excess return for the exposure of additional volatility from holding a riskier asset. A portfolio with no excess return has a Sharpe ratio of zero. The Sharpe ratio is an important tool in comparing average return per unit of total risk. However, the Sharpe ratio does not tell us what the total risk $\sigma(r_p)$ consists of (Eckbo and Ødegård, 2015).

7.3.3 The Information Ratio

According to Goodwin (1998), the objective of the information ratio is to compile the mean-variance properties of an active portfolio. The ratio is based on the Markowitz mean-variance paradigm, which states that the mean and standard deviation are acceptable data to portray an investment portfolio. The information ratio seeks to identify the consistency of an investor, and measures a portfolio manager's ability to generate excess return relative to a benchmark. Simply put, the information ratio (IR) is the ratio of portfolio returns over the returns of a benchmark to the volatility of those returns. Eckbo and Ødegård (2015) defines the information ratio (IR) relative to a benchmark, I , and the calculation of the ratio follows from Equation (14);

$$IR_p = \frac{E(r_p - r_I)}{\sigma(r_p - r_I)} \quad (14)$$

Where $r_p - r_I$ is the difference between the return on an active portfolio and the return on a benchmark portfolio, such as the return that eliminates the need to correct for the risk-free rate,

measured with the return r_I on a benchmark I . σ is the standard deviation, also known as «tracking error».

A higher information ratio is desired as it indicates a more consistent manager. Conversely, a low information ratio indicates underperformance. Investors apply the information ratio when selecting mutual funds based on investor risk profiles (Investopedia, 2018).

The information ratio is closely related to the Sharpe ratio. However, the relation between the two ratios is viewed as confusing. Sharpe argues that the information ratio is a “generalized Sharpe ratio”. This claim is based on a notion of excess return as a result from a long-short strategy. According to Sharpe, the Sharpe ratio is a special case of the information ratio, where a long portfolio is financed using funds borrowed at the risk-free rate. This indicates a case in which the risk-free asset is a shorted security. However, the interpretation violates how the information ratio is intended to measure the distinctive information portrayed by an active portfolio’s returns (Goodwin, 1998). According to Investopedia (2018), the information ratio differs from the Sharpe ratio, as the objective of the information ratio is to measure the risk-adjusted return in relation to a benchmark. Furthermore, the Sharpe ratio assesses the amount by which an investment portfolio outperforms the risk-free rate of return on a risk-adjusted basis, while the information ratio measures consistency of an investment’s performance.

7.3.4 Portfolio Holding Measurement

Aragon and Ferson (2006) argue that return-based measurements disregard potentially beneficial information that is occasionally available in practice such as the composition of the portfolio. Contrarily, weight-based measurements do not require pre-specifications of risk-factors, and are thus better than return-based measurements that presents uncertainty regarding true risk-factors (Eckbo and Ødegård, 2015). Eckbo and Ødegård (2015) apply a weight-based measurement known as the portfolio holding measurement. According to the authors, the covariance of the manager’s actual holdings is estimated as the proportions or portfolio weights, with the subsequent returns of the assets. Correspondingly, the method applies further information about the fund than just returns, which provides a better statistical strength to reveal if the portfolio is generating excess return. As the method requires available data of the actual holdings of a fund, we do not utilize this method in our empirical analysis as we do not have access to this information.

8. Empirical Results

The objective of this chapter is to portray and discuss the empirical results from our analysis. The first section presents the Jensen's alphas obtained from the Fama and French three-factor regression model. Alpha is a measurement of the potential excess return earned by the value-weighted portfolios, where a statistically significant alpha estimate is required to conclude abnormal returns in periods of change in political leadership. The following two sections present the estimated Sharpe ratios and information ratios for the constructed portfolios. It is important to commemorate that these measurements aim to consider different aspects of how political changes is assumed to affect financial markets. The Sharpe ratio measures the portfolios' excess return per unit of total risk, while the information ratio seeks to measure risk-adjusted return in relation to a benchmark. Finally, we summarize the results and debate the level of support for the hypothesizes.

8.1 Alpha

This section provides a discussion of the abnormal returns earned by the value-weighted portfolios based on estimated alpha values. We apply a significance level of 5%.

Table 5 portrays the estimated R-squared, alphas, factor loadings, and associated p-values for the combined portfolio in all three presidential periods. The combined portfolio represents the value-weighted portfolio consisting of all three sectors.

Table 5. Combined Portfolio Key Estimates 1997-2017.

Note: The table illustrates R-Squared, Alpha, Mkt-RF, SMB, HML, and associated p-values for the value-weighted portfolio consisting of the health care sector, the defense sector and the flight-travel sector from 1997-2001, 2005-2009, and 2013-2017. The value-weighted portfolio consisting of all three sectors is denoted “Combined Portfolio” in the table. The numbers are obtained running a regression of the Fama and French three factor loadings (Mkt-RF, SMB and HML), against the value-weighted portfolio returns. Mkt-RF refers to the excess return on the broad market portfolio, SMB refers to the difference between the return on a portfolio of small stocks and the return on a portfolio of large stocks, and HML illustrates the difference between the return on a portfolio of high-book-to-market stocks and the return on a portfolio of low-book-to-market stocks. The numbers are rounded to three decimals.

	Combined Portfolio		
	Bush 1997-2001	Obama 2005-2009	Trump 2013-2017
R-Squared	0,577	0,677	0,144
Alpha	-0,003	-0,002	0,011
P-Value Alpha	6,38E-06	0,000	0,257
Mkt-RF	0,055	0,080	0,841
P-Value Mkt-RF	0,000	1,41E-10	0,014
SMB	0,046	0,032	0,104
P-Value SMB	0,002	0,100	0,786
HML	-0,011	-0,022	0,043
P-Value HML	0,560	0,128	0,908

From Table 5, we observe a R-squared of 58% during the Bush presidential period, and a R-squared of 68% from 2005-2009. In the interval 2013-2017, the R-squared value is only 0,14, suggesting a sufficiently low explanatory power and a less secure alpha and beta figure. Furthermore, the Mkt-RF is significant at 5% level in all three presidential periods with a value of 0,06 from 1997-2001, and 0,08 from 2005-2009. During the Trump presidential period, the loading is 0,84. As the factor loading is less than 1, the portfolio is less volatile than the benchmark in all three presidential periods. However, the difference between the period 1997-2001 and 2013-2017 is sufficient, indicating a higher volatility with Trump as president, and not as a result of his political party. The SMB is positive in all estimation periods for the combined portfolio. Still, the portfolio is only significant in the Bush presidential period. The high B/M minus low B/M factor loading is negative from 1997-2001 and from 2005-2009, while the factor loading is positive in the Trump presidential period. This difference in value suggests that Trump is the reason for the positive loading, and not his republican party. However, HML is not significant in either period. The alpha has a negative value of 0,003

during the Bush presidential period, and a negative value of 0,002 during the Obama presidential period. Both alpha values are significant at 5 % level, thus indicating that the combined portfolio underperforms the benchmark during the Bush- and Obama presidential periods. This significant alpha value further indicates that the investment portfolio is not optimally diversified, which is natural given that the portfolio only includes three sectors. Conversely, the alpha is positive and insignificant in the Trump presidential period, and we can therefore not conclude alpha different from zero in the interval 2013-2017. The election of Trump affects the economic policy of government, which directly impacts on firms. Accordingly, the risk-adjusted return measured by alpha is higher, and we thus reject that the election of Trump is unfortunate for the combined portfolio, as the portfolio performance is much worse during the Bush – and Obama presidential periods.

Table 6 illustrates the estimated R-squared, alphas and the factor loadings from the regression of the airline portfolio from December 2013 to December 2017.

Table 6. Airline Portfolio Key Estimates 1997-2017.

Note: The table illustrates R-Squared, Alpha, Mkt-RF, SMB, HML, and associated p-values for the value-weighted airline portfolio from 1997-2001, 2005-2009, and 2013-2017. The numbers are obtained running a regression of the Fama and French three factor loadings (Mkt-RF, SMB and HML), against the value-weighted portfolio returns. Mkt-RF refers to the excess return on the broad market portfolio, SMB refers to the difference between the return on a portfolio of small stocks and the return on a portfolio of large stocks, and HML illustrates the difference between the return on a portfolio of high-book-to-market stocks and the return on a portfolio of low-book-to-market stocks. Numbers not available is denoted “N/A” in the table. The numbers are rounded to three decimals.

	Airline Portfolio		
	Bush 1997-2001	Obama 2005-2009	Trump 2013-2017
R-Squared	N/A	N/A	0,124
Alpha	N/A	N/A	0,013
P-Value Alpha	N/A	N/A	0,226
Mkt-RF	N/A	N/A	0,855
P-Value Mkt-RF	N/A	N/A	0,023
SMB	N/A	N/A	0,052
P-Value SMB	N/A	N/A	0,902
HML	N/A	N/A	0,118
P-Value HML	N/A	N/A	0,775

From Table 6, we observe a R-squared of 0,12 for the value-weighted airline portfolio. R-squared measures the fraction of a fund's movements that are explained by movements in a benchmark index. Accordingly, a R-squared of 100% indicates that all fluctuations in a portfolio are completely explained by movements in the benchmark (Morningstar, 2016). Based on this, only 12% of the movements in the airline portfolio are explained by fluctuations in the Fama and French benchmark, and the model is thus considered to have a low explanatory power. A low R-squared estimate suggests that the airline portfolio does not act much like the benchmark, and indicates a less secure alpha and beta figure.

Furthermore, Table 6 portrays the "loadings" for the three factors. The Mkt-RF loading represents the airline portfolio's exposure to the market factors, and illustrates the traditional beta of the fund. Mkt-RF has a loading of 0,86, and thus indicates a less volatile portfolio compared to the benchmark index. The associated p-value is 0,022 and the result is accordingly statistically significant at 5% level. The SMB signifies the difference between the return on a portfolio of small stocks and the return on a portfolio of large stocks. The SMB has a loading of 0,052, which implies that the fund has a small-cap tilt. HML represents the difference between the return on a portfolio of high B/M stocks and the return on a portfolio of low B/M stocks. A HML loading of 0,12 indicates a growth portfolio. However, SMB and HML are not significant at 5% level.

According to Table 6, the airline portfolio has a positive alpha value of 0,013 per month. A positive alpha value implies that the airline portfolio outperforms the regression-based benchmark by the given amount, in example the portfolio generates positive abnormal returns compared to the benchmark. However, the associated p-value of 0,23, illustrates an insignificant alpha value. We can thus not conclude an alpha different from zero for the airline portfolio between 2013-2017. Given the insignificant results, we also apply the Fama and French five-factor model to potentially improve the accuracy of our results. Furthermore, we run the regression on an equal-weighted airline portfolio. However, the alpha is still insignificant and the various estimates remain close to its original value.

Table 7 portrays the estimated R-squared, alphas and factor loadings, with associated p-values, for the Fidelity Select Defense and Aerospace Portfolio in all three presidential periods.

Table 7. Defense Sector Key Estimates 1997-2017.

Note: The table illustrates R-Squared, Alpha, Mkt-RF, SMB, HML, and associated p-values for the Fidelity Select Defense and Aerospace Portfolio from 1997-2001, 2005-2009, and 2013-2017. The numbers are obtained running a regression of the Fama and French three factor loadings (Mkt-RF, SMB and HML), against the value-weighted portfolio returns. Mkt-RF refers to the excess return on the broad market portfolio, SMB refers to the difference between the return on a portfolio of small stocks and the return on a portfolio of large stocks, and HML illustrates the difference between the return on a portfolio of high-book-to-market stocks and the return on a portfolio of low-book-to-market stocks. The numbers are rounded to three decimals.

	Defense Sector		
	Bush 1997-2001	Obama 2005-2009	Trump 2013-2017
R-Squared	0,611	0,717	0,565
Alpha	-0,003	-0,003	-0,002
P-Value Alpha	0,586	0,538	0,549
Mkt-RF	1,034	1,087	0,956
P-Value Mkt-RF	3,00E-10	8,83E-12	1,04E-08
SMB	0,000	0,125	0,179
P-Value SMB	1,000	0,593	0,266
HML	0,479	-0,031	-0,114
P-Value HML	0,007	0,857	0,464

According to Table 7, 61% of the movements in the Fidelity Select Defense and Aerospace Portfolio are explained by movements in the benchmark index from 1997-2001. Investopedia (2018) argues that a R-squared value below 70% is considered low, whereas a R-squared estimate of 85%-100% is considered high. Accordingly, the estimated R-squared in the interval 1997-2001 is considered low for the defense portfolio. Furthermore, the Mkt-RF has a value of 1,03 during the Bush presidential period, and is significant at 5% level with a p-value close to zero. As the defense sector has a significant beta above 1, the portfolio is more volatile than the benchmark. The value of the SMB loading is close to zero, indicating a large cap tilt for the defense portfolio in the interval 1997-2001. However, the p-value is above the 5% level. HML has a loading of 0,48 and is statistically significant at conventional levels, indicating a value fund. The defense portfolio has a negative alpha value of 0,003 during the Bush presidential period, which suggests that the portfolio generates negative abnormal returns. The alpha estimate is, however, not significant, and we can thus not conclude an alpha different from zero.

During the Obama presidential period, the value-weighted defense portfolio has a R-squared of 71%, as displayed by Table 7. A higher fraction of the movement in the defense sector is thus explained by the movement in the benchmark from 2005-2009, compared to the Bush presidential period. The defense portfolio's exposure to the market factors has a value of 1,09 and is significant at 5% level. SMB has a factor loading close to zero during the Obama presidential period, indicating a large cap tilt. However, the associated p-value is above the 5% level. Furthermore, the HML loading is negative and insignificant from 2005-2009. The Fidelity Select Defense and Aerospace Portfolio has a negative alpha value of 0,003 during the Obama presidential period, indicating underperformance relative to the benchmark. However, the alpha estimate is insignificant, and we can therefore not conclude an alpha different from zero.

Table 7 illustrates a R-squared of 57% during the Trump presidential period for the defense portfolio. The portfolio does not act much like the index as only 57% of the movements in the defense sector are explained by the fluctuations in the benchmark. The Mkt-RF has a significant value of 0,96, indicating that the portfolio is less volatile than the benchmark from 2013-2017. SMB has a positive value, whereas HML has a negative value. Both are, however, insignificant in the Trump presidential period. The defense portfolio has an estimated alpha of -0,002 in the interval 2013-2017. A negative alpha value suggests a portfolio that generates negative abnormal returns. However, we cannot conclude an alpha different from zero as the p-value is greater than 0,05.

The model has the highest explanatory power for the defense sector in the period 2005-2009. Furthermore, the estimated alpha values are negative and insignificant in all three presidential periods. According to Table 7, the defense portfolio is more volatile in the Bush – and Obama presidential periods compared to the interval 2013-2017. This indicates that stock returns are less volatile as a result of Trump, and not his political party.

Table 8 portrays the estimated R-squared, alphas and factor loadings, with associated p-values for the T Rowe Price Health Science Fund in all three presidential periods.

Table 8. Health Care Sector Key Estimates 1997-2017.

Note: The table illustrates R-Squared, Alpha, Mkt-RF, SMB, HML, and associated p-values for the T Rowe Price Health Science Fund from 1997-2001, 2005-2009, and 2013-2017. The numbers are obtained running a regression of the Fama and French three factor loadings (Mkt-RF, SMB and HML), against the value-weighted portfolio returns. Mkt-RF refers to the excess return on the broad market portfolio, SMB refers to the difference between the return on a portfolio of small stocks and the return on a portfolio of large stocks, and HML illustrates the difference between the return on a portfolio of high-book-to-market stocks and the return on a portfolio of low-book-to-market stocks. The numbers are rounded to three decimals.

	Health Care Sector		
	Bush 1997-2001	Obama 2005-2009	Trump 2013-2017
R-Squared	0,530	0,678	0,529
Alpha	0,005	0,000	-0,004
P-Value Alpha	0,559	0,957	0,452
Mkt-RF	0,492	0,865	0,877
P-Value Mkt-RF	0,016	4,60E-11	0,000
SMB	0,626	0,216	0,631
P-Value SMB	0,002	0,275	0,007
HML	-0,256	-0,258	-0,881
P-Value HML	0,325	0,082	0,000

According to Table 8, the health care portfolio has a R-squared of 0,53 during the Bush – and Trump presidential periods. Accordingly, 53% of the movements in the health care fund are explained by movements in the benchmark index from 1997-2001, and from 2013-2017. Conversely, the model has a higher explanatory power with Obama as president. The excess return from the benchmark has a significant value of 0,49 during the Bush presidential period, whereas the interval 2005-2009 and 2013-2017 has a significant loading of 0,86 and 0,88, respectively. Thus, the health care sector is less volatile than the benchmark during all three presidential periods. The small minus big loading has a significant value of 0,63 during the Bush – and Trump presidential periods. However, with Obama as president, the loading has a lower and insignificant value. These results suggest similar characteristics for the two republican presidents. The HML has a negative value in all three presidential periods, and is only significant from 2013-2017, defining a growth portfolio. Furthermore, the alpha values are positive from 1997-2001, and 2005-2009, and negative in the Trump presidential period.

Accordingly, we argue that the negative alpha value is a characteristic of Trump, and not a result of his political party. Still, the associated p-values are greater than 0,05, and we can thus not conclude alphas different from zero in any of the three presidential periods for the health care sector.

Given the insignificant alpha values for the Fidelity Select Defense and Aerospace Portfolio and the T Rowe Price Health Science Fund, we also apply the Fama and French five-factor model to potentially improve the accuracy of our results. Furthermore, we extend the estimated time period from 4 to 7 years. However, the alphas are still insignificant for both portfolios during all three presidential periods.

The three-factor model has the highest explanatory power for the defense sector, the health care sector, and the combined portfolio during the Obama presidential period. The airline portfolio has an insignificant positive alpha estimate from 2013-2017. Furthermore, the defense sector has insignificant and negative alphas during all three presidential periods. For the health care fund, only the alpha value in the interval 2013-2017 is negative, however, all alpha estimates are insignificant during all three presidential periods for the health care portfolio. The combined portfolio has a statistically significant negative alpha from 1997-2001 and from 2005-2009. All estimated portfolios are less volatile than the benchmark during the Trump presidential period. The Fidelity Select Defense and Aerospace portfolio indicates that the volatility results from Trump's presidency, and not his political party. However, this is not clearly supported by the other portfolios.

We argue that the combined portfolio in the period 1997-2001 and 2005-2009 generate negative abnormal returns. Furthermore, we cannot conclude alphas different from zero for any of the other portfolios in any presidential period. Accordingly, we reject that Trump has a negative effect on the combined portfolio, as the portfolio returns are sufficiently higher with Trump as president compared to the Bush – and Obama presidential periods. Controlling for political party does not provide clear results.

8.2 The Sharpe Ratio

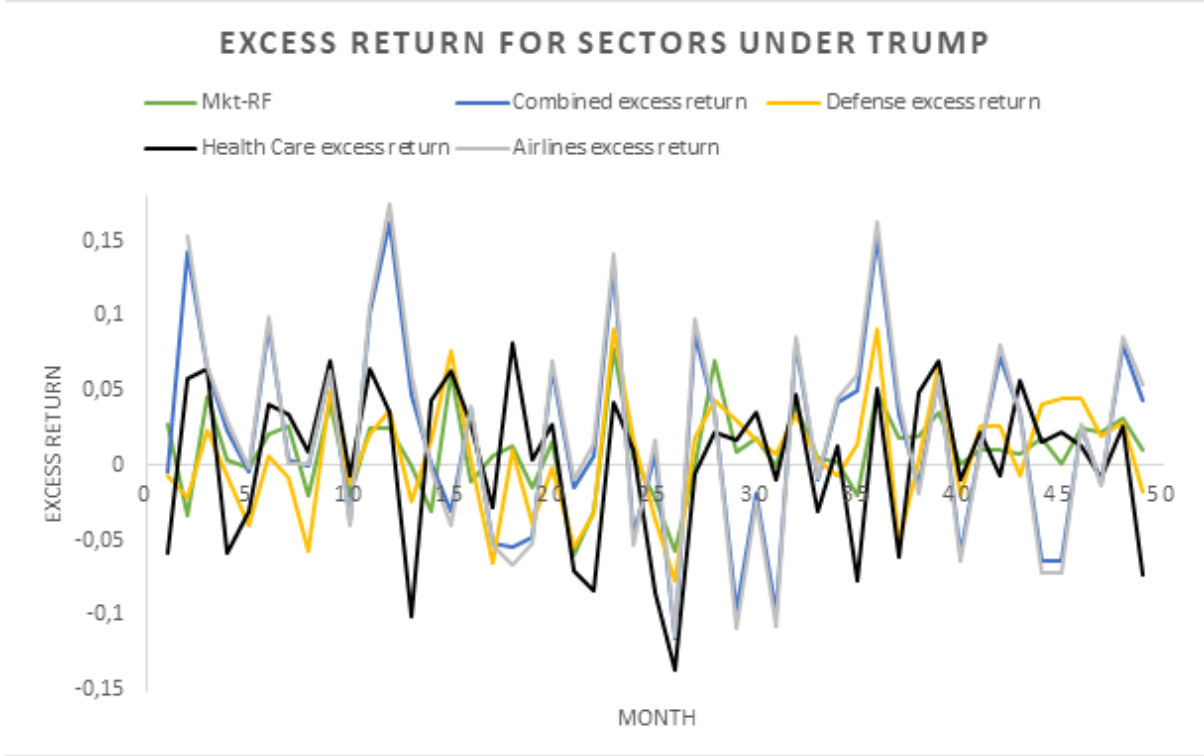
This section provides a discussion of the portfolios' excess return per unit of total risk through an illustration of the estimated Sharpe ratios. Table 9 portrays the average return, standard deviation, and Sharpe ratios for the three sector portfolios, the combined portfolio, and the Fama and French benchmark.

Table 9. Portfolio Average Return, Standard Deviation, and Sharpe Ratio.

Note: The table illustrates the arithmetic average excess return, arithmetic average standard deviation, and estimated Sharpe ratios for the Fama and French benchmark, the defense sector, the flight-travel sector, the health care sector, and the value-weighted portfolio consisting of all three sectors in the period 1997-2001, 2005-2009, and 2013-2017. The numbers are rounded to three decimals. The value-weighted portfolio consisting of all three sectors is denoted "Combined Portfolio" in the table. The numbers are rounded to three decimals.

	Average Return	Standard Deviation	Sharpe Ratio
<i>Benchmark</i>			
Bush 1997-2001	0,002	0,056	0,036
Obama 2005-2009	-0,001	0,051	-0,023
Trump 2013-2017	0,010	0,028	0,344
<i>Defense Sector</i>			
Bush 1997-2001	0,001	0,061	0,016
Obama 2005-2009	-0,004	0,066	-0,065
Trump 2013-2017	0,007	0,038	0,176
Airline Portfolio 2013-2017	0,021	0,071	0,293
<i>Health Care Sector</i>			
Bush 1997-2001	0,006	0,085	0,073
Obama 2005-2009	-0,0003	0,052	-0,006
Trump 2013-2017	0,006	0,052	0,107
<i>Combined Portfolio</i>			
Bush 1997-2001	-0,003	0,007	-0,476
Obama 2005-2009	-0,002	0,005	-0,439
Trump 2013-2017	0,019	0,065	0,291

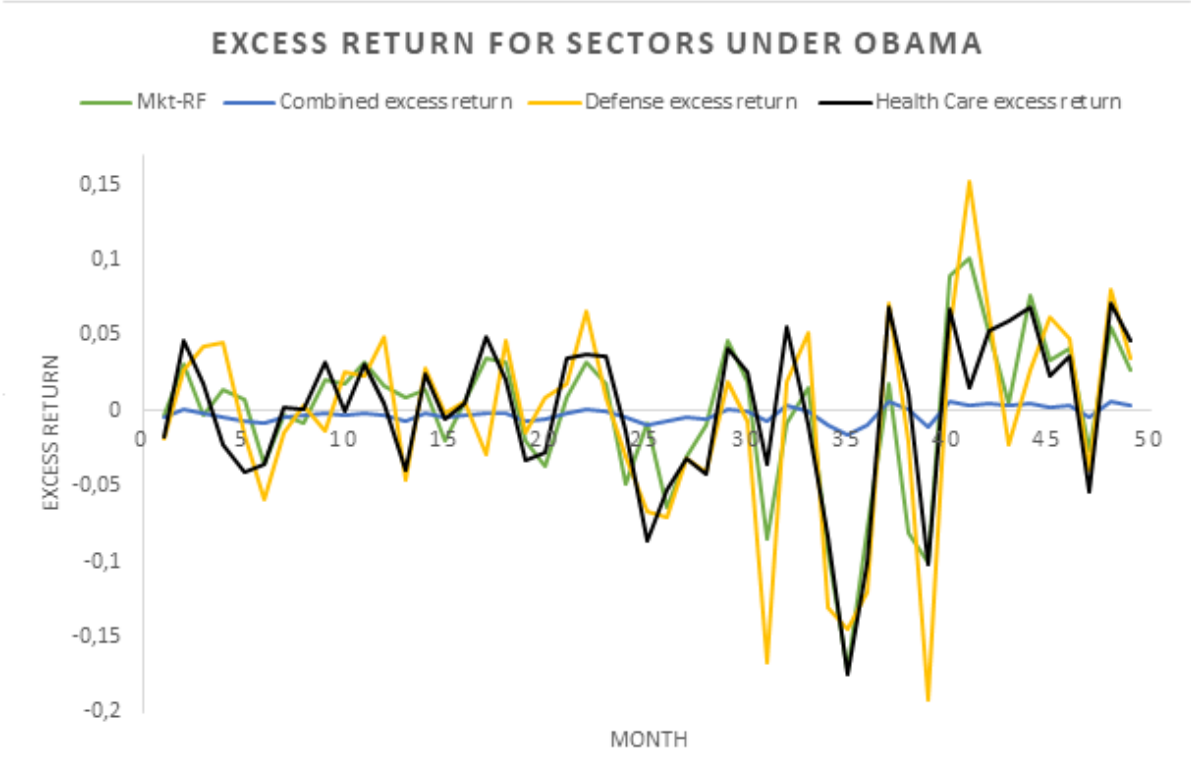
According to Table 9, the average return is positive during the Trump presidential period for all portfolios. The benchmark has an average return of 0,01 in the interval 2013-2017. The Fidelity Select Defense and Aerospace Portfolio and the T Rowe Price Health Science Fund has an average return of 0,007 and 0,006 respectively in the same time period. It thus appears like the benchmark outperforms the portfolios in the period between 2013-2017. However, the airline portfolio has an average return of 0,02 under Trump, and the average return for the combined portfolio is 0,019 in the same presidential period. These two sectors thus seem to outperform the benchmark based on average returns. Figure 7 illustrates the excess return of the various portfolios under Trump.



Note: The figure illustrates the excess return for the various sector portfolios in the time period 2013-2017. The vertical axis represents the excess return expressed as percentage, whereas the horizontal axis portrays the time period 2013-2017 on a monthly basis. The excess return for the Fama and French benchmark is denoted by the green graph, the combined portfolio is represented by the blue graph, whereas the defense portfolio is illustrated by the yellow graph. The black graph portrays the health care sector, and the grey graph demonstrates the airline portfolio.

Figure 7. Excess Return 2013-2017.

Furthermore, Table 9 indicates that in the period between 2005-2009, the average return for each portfolio is negative, where the Health Care Sector suggests to be the only sector outperforming the benchmark with an average return of -0,0003 compared to - 0,001. Figure 8 portrays the excess return during the Obama presidential period.

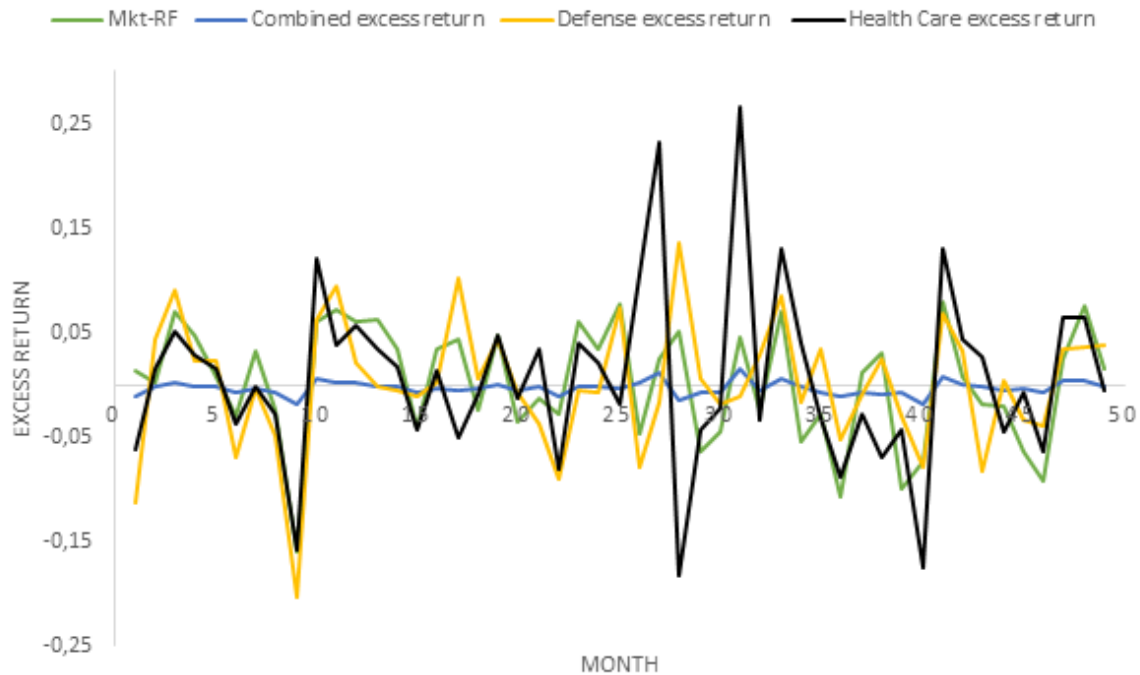


Note: The figure illustrates the excess return for the various sector portfolios in the time period 2005-2009. The vertical axis represents the excess return expressed as percentage, whereas the horizontal axis portrays the time period 2005-2009 on a monthly basis. The excess return for the Fama and French benchmark is denoted by the green graph, the combined portfolio is represented by the blue graph, whereas the defense portfolio is illustrated by the yellow graph. The black graph portrays the excess return for the health care sector.

Figure 8. Excess Return 2005-2009.

Table 9 demonstrates a benchmark average return of 0,002 under Bush. The only portfolio, during this period, exceeding the benchmark average return is the average return of the T Rowe Price Health Science Fund. Accordingly, it appears that the health care portfolio from 1997-2001 has a higher excess return than the benchmark, and that the benchmark outperforms the remaining portfolios in this period. The excess return during the Bush presidential period is displayed in Figure 9.

EXCESS RETURN FOR SECTORS UNDER BUSH



Note: The figure illustrates the excess return for the various sector portfolios in the time period 1997-2001. The vertical axis represents the excess return expressed as percentage, whereas the horizontal axis portrays the time period 1997-2001 on a monthly basis. The excess return for the Fama and French benchmark is denoted by the green graph, the combined portfolio is represented by the blue graph, whereas the defense portfolio is illustrated by the yellow graph. The black graph portrays the excess return for the health care sector.

Figure 9: Excess Return 1997-2001.

However, such simple comparisons of returns are not sufficient to conclude excess/abnormal returns. When comparing the performance of various portfolios or funds, investors must consider the risk-adjusted returns to contemplate if they are being adequately compensated for the risk they possess. As the various graphical figures illustrate, the excess return has extensive variations during the different specified time periods for the constructed portfolios. Comparing the average return is thus not adequate, and the portfolios' excess return per unit of total risk/ the Sharpe ratio has to be estimated and compared.

From Table 9 we observe a Sharpe ratio of 0,036 from 1997-2001 for the benchmark portfolio. The Sharpe ratio for the same time period is 0,016 for the Fidelity Select Defense and Aerospace Portfolio and 0,073 for the T Rowe Price Health Science Fund. The combined portfolio has a negative Sharpe ratio of 0,476 during the Bush presidential period. These results imply that

only the health care sector outperforms the benchmark on a risk-adjusted basis in the interval 1997-2001. However, neither of the Sharpe ratios are considered acceptable.

In the Obama presidential period, the Sharpe ratio is negative for all sector portfolios. Negative Sharpe ratios do not provide useful information as the risk-free asset outperforms the investment on a risk-adjusted basis. Further discussion of negative values is thus not expedient.

In the period 2013-2017, all portfolios have positive Sharpe ratios. The benchmark portfolio has an estimated Sharpe ratio of 0,344 and outperforms the remaining portfolios during this time interval, as the sector portfolios have a lower average return per unit of total risk. During the Trump presidential period, the sector portfolios contain a higher volatility than the benchmark portfolio, and are thus riskier. This is expected as the portfolios are less diversified compared to the benchmark. However, the portfolios do not adequately compensate for the associated risk compared to the benchmark, and the benchmark is thus preferred.

The defense sector has the highest Sharpe ratio in the interval 2013-2017. The Bush presidential period also possesses a positive Sharpe ratio, whereas the sector portfolio is negative in the interval 2005-2009. However, the benchmark outperforms the Fidelity Select Defense and Aerospace Portfolio in all three presidential periods. Given that the sector portfolio has a positive Sharpe ratio during the Bush – and the Trump presidential period and a negative Sharpe value with Obama as president, a positive ratio suggests to be a republican feature. The estimated Sharpe ratio for the airline portfolio is difficult to compare due to limited data. However, the benchmark outperforms the sector on a risk-adjusted basis from 2013-2017.

The T Rowe Price Health Science Fund has a positive Sharpe ratio in the two republican presidential periods, and a negative Sharpe ratio from 2005-2009. Again, it seems that positive ratios are republican characteristics rather than a reflection of the president himself. However, the health care fund outperforms the benchmark from 1997-2001 and from 2005-2009, but the fund underperforms the benchmark from 2013-2017. These results thus indicate that the underperformance in the sector during the Trump presidential period is unrelated to his political party. The combined portfolio has a positive Sharpe ratio in the interval 2013-2017, and the portfolio has a negative ratio from 1997-2001 and 2005-2009. Again, these results provide support that Trump's effect on the stock markets is unrelated to the republican party. In order to obtain a more precise picture of the discussed patterns, we additionally estimate the Sharpe ratio for each portfolio over a longer horizon. We extend the estimation period from 4 to 7

years. Table 10 presents the longer period estimated Sharpe ratios. The airline portfolio is excluded from the table, as the time period remains the same as a result of limited data.

Table 10: Sharpe Ratio Period Extension.

Note: The table illustrates the estimated Sharpe ratios for the Fama and French benchmark, the defense sector, the health care sector, and the value-weighted portfolio consisting of all three sectors in the period 1997-2004, 2005-2012, and 2010-2017. The numbers are rounded to three decimals. The value-weighted portfolio consisting of all three sectors is denoted “Combined portfolio” in the table. The time period is extended from 4 to 7 years.

	Sharpe Ratio		
	Bush 1997-2004	Obama 2005-2012	Trump 2010-2017
Benchmark	0,057	0,071	0,362
Defense Sector	0,100	0,039	0,279
Health Care Sector	0,074	0,112	0,241
Combined Portfolio	-0,354	-0,160	0,234

By extending the time period from 4 to 7 years, all benchmark ratios are positive. According to Table 10, the defense portfolio outperforms the benchmark on a risk-adjusted basis during the Bush presidential period, $0,1 > 0,06$. Conversely, the portfolio underperforms relative to the benchmark portfolio with Obama and Trump as presidents. Based on this, we argue that the lower average return per unit of total risk in this time interval for the defense portfolio, results from Trump’s presidency and not his political party. However, the Sharpe ratio from 2010-2017 outperforms the Sharpe ratios during the Bush – and Obama presidential periods for the defense sector, even if the portfolio does not outperform the benchmark on a risk-adjusted basis with Trump as president. The T Rowe Price Health Science Fund also possesses positive Sharpe ratios in all presidential periods. The Sharpe ratio of the health care portfolio exceeds the ratio of the benchmark portfolio between 1997-2004 and 2005-2012, while the benchmark outperforms the health care fund during the Trump presidential period. Furthermore, the Sharpe ratio is significantly higher from 2010-2017 compared to other presidential periods. Again, these results are arguably related to Trump’s presidency rather than the republican party. With the period extension, the Sharpe ratio of the combined portfolio is still negative in the Bush – and Obama presidential periods, and positive with Trump as president. Again, Trump outperforms Bush and Obama on a risk-adjusted basis. Based on this difference in ratios,

Trump’s capabilities are separated from his political party. The combined portfolio does, however, not outperform the benchmark on a risk-adjusted basis.

We argue that all sectors underperform relative to the benchmark on a risk-adjusted basis with Trump as president. However, the risk-adjusted performance for all sector portfolios is significantly higher during Trump’s presidency compared to Bush and Obama based on Sharpe ratios. Controlling for political party, the results do not support that Trump’s effect on the stock market is related to his republican policies. Our findings thus suggest that the election of Donald Trump provides an increase in performance for the specified sectors compared to the Bush – and Obama presidential periods.

8.3 The Information Ratio

The objective of this section is to identify the consistency of an investor by measuring the portfolios’ ability to generate excess return relative to a passive benchmark through the estimation of the portfolios’ information ratios. Table 11 presents the estimated information ratios for the different specified portfolios during the three presidential periods. The combined portfolio represents the value-weighted portfolio consisting of all three sectors.

Table 11: Information Ratio.

Note: The table illustrates the estimated information ratios for the defense sector, the health care sector, the flight-travel sector and the portfolio consisting of all three sectors from 1997-2001, 2005-2009, and 2013-2017. The portfolio consisting of all three sectors is denoted “Combined Portfolio” in the table. The numbers are rounded to three decimals. Numbers that are not available is denoted “N/A” in the table.

	Information Ratio		
	Bush 1997-2001	Obama 2005-2009	Trump 2013-2017
Defense Sector	-0,229	-0,206	-0,313
Health Care Sector	0,144	0,675	-0,182
Airline Portfolio	N/A	N/A	0,270
Combined Portfolio	0,104	0,022	0,250

Table 11 illustrates a negative information ratio for the Fidelity Select Defense and Aerospace Portfolio during all three presidential periods. This implies that the portfolio is unable to produce any excess return. In the time period 1997-2001, the sector generates an information ratio of -0,229. From 2005-2009, the information ratio's estimated value is -0,204. The estimation period of Trump (2013-2017) provides an information ratio of -0,313. The negative information ratios signify that the portfolio is unsuccessful in outperforming the benchmark for each specified time period. Arranging the presidents' abilities or discussing investment opportunities is therefore inexpedient as investors lose money on this portfolio compared to investing in an index. Thus, the defense portfolio is not considered to be a reasonable investment in any of the three presidential periods.

According to Table 11, the T Rowe Price Health Science Fund has a negative information ratio of 0,182 during the Trump presidential period. This implies that the health care sector is unable to generate excess return from December 2013 to December 2017 in correspondence with the defense sector, and is thus not an appropriate investment. Conversely, the fund has a positive estimation value of 0,144 during the Bush presidential period. Based on this, we argue that the negative information ratio is related to Trump's presidency. From 2005-2009, the fund generates an information ratio of 0,675, which is sufficiently higher than during the other presidential periods, and accordingly the information ratio under Obama further supports that Trump is the reason for the negative information ratio from 2013-2017. The results insinuate that the health care portfolio outperforms the benchmark under Bush and Obama, in contrast to Trump.

Our constructed airline portfolio contains limited data, and it is accordingly difficult to compare the estimated information ratio during the Trump presidential period. From Table 11 we observe a positive information ratio of 0,270. The combined portfolio has a positive information ratio in all presidential periods, where the highest information ratio is between 2013-2017.

We find it strange that the combined portfolio during the Trump presidential period has the highest information ratio of the combined portfolio, as the portfolio consists of two sub-portfolios with negative information ratios. Additionally, the airline portfolio is composed of limited data and might not be the most reliable of the portfolios. Funds which underperform the benchmark are normally closed out, and given the negative information ratios for the defense sector during all three presidential periods, we control the results by extending the time period from 4 to 7 years.

Table 12 presents the longer period estimated information ratios for the defense sector, the health care sector, the flight-travel sector, and the value-weighted portfolio consisting of all three sectors during all three presidential periods.

Table 12: Information Ratio Period Extension.

Note: The table illustrates the estimated information ratios for the defense sector, the health care sector, the flight-travel sector and the portfolio consisting of all three sectors from 1997-2004, 2005-2012, and 2010-2017. The portfolio consisting of all three sectors is denoted “Combined Portfolio” in the table. The numbers are rounded to three decimals. Numbers that are not available is denoted “N/A” in the table. The time period is extended from 4 to 7 years.

	Information Ratio		
	Bush 1997-2004	Obama 2005-2012	Trump 2010-2017
Defense Sector	0,649	-0,105	-0,159
Health Care Sector	0,118	1,502	0,006
Airline Portfolio	N/A	N/A	N/A
Combined Portfolio	0,108	0,097	-0,003

By extending the time period, the Fidelity Select Defense and Aerospace portfolio generates a positive information ratio of 0,649 during the Bush presidential period. The information ratio is, however, still negative under Trump and Obama. The sizable difference between the information ratio under Bush and under Trump, implies that the fund underperforms the benchmark as a result of Trump and not the political party he represents.

The T Rowe Price Health Science Fund is, post-adjustments, barely positive under Trump, and is still considered a poor investment. Additionally, investors are advised not to invest in the health care portfolio under Bush. The information ratio exceeds 1 in the Obama presidential period, which is an exceptional investment opportunity. Furthermore, the combined portfolio portrays a negative information ratio in the Trump presidential period. As the combined portfolio has a positive ratio under Bush and Obama, but not with Trump as president, the results indicate that Trump is the reason for the negative information ratio, and not his political party. The airline portfolio involves limited data, and accordingly, the time period is not extended.

We argue that all sectors are unable to generate excess return relative to the benchmark with Trump as president. The Fidelity Select Defense and Aerospace Portfolio and the combined

portfolio have negative information ratios, and the health care sector is barely positive with extended time period. The airline portfolio is the only sector who portrays a positive information ratio in the Trump presidential period, but the value is not adequate. Controlling for political party, the results do not support that Trump's effect on the stock market is related to his republican policies.

8.4 Summary and Discussion of the Empirical Results

Utilizing the Fama and French three-factor model, we find evidence that the constructed value-weighted portfolio consisting of the health care sector, the defense sector, and the flight-travel sector generates negative abnormal returns during the Bush – and Obama presidential periods. However, we cannot conclude alpha different from zero for the combined portfolio in the interval 2013-2017. Accordingly, we reject that Trump has a negative influence on the combined portfolio, as the portfolio performance is sufficiently lower during the Bush – and Obama presidential periods. Furthermore, the results indicate that the combined portfolio is less volatile than the Fama and French benchmark during all three presidential periods. The Mkt-RF is significantly lower from 1997-2001 and from 2005-2009 compared to the Trump presidential period. Accordingly, the higher volatility in the interval 2013-2017 suggests to result from Trump's presidency and not his political party. The SMB coefficient is close to zero during all estimated time periods for the combined portfolio. However, the SMB factor loading is only significant from 1997-2001. The HML factor loading is positive in the Trump presidential period, and negative in the interval 1997-2001 and 2005-2009 for the combined portfolio. This difference in HML value indicate that the positive factor loading originates from Trump, rather than the republican party. However, the results are not significant at 5% level.

The empirical results do not provide evidence of excess return for the Fidelity Select Defense and Aerospace Portfolio, the T Rowe Price Health Science Fund, or the value-weighted airline portfolio during any presidential period. According to the empirical results, the airline portfolio and the health care fund possess a lower volatility than the benchmark in all presidential periods. The defense sector has a lower volatility than the benchmark during the Trump presidential period, and a higher volatility from 1997-2001 and from 2005-2009. Based on this, the results suggest that the defense portfolio is more stable in the interval 2013-2017 as a result of Trump, and not the political party he represents. The SMB factor loading is insignificant at 5% level

for the defense sector and the airline portfolio during all presidential periods. However, the SMB value for the health care fund is positive and significant from 1997-2001 and from 2013-2017, illustrating that the small firms outperform the big firms in this portfolio for the given time intervals. The HML factor loading for the defense sector is significantly positive during the Bush presidential period, and negative and insignificant from 2005-2009 and from 2013-2017. The health care sector possesses a significantly negative HML value during the Trump presidential period, indicating that high value stocks are outperformed by low value stocks in the T Rowe Price Health Science Fund in this interval.

The Fidelity Select Defense and Aerospace portfolio outperforms the benchmark on a risk-adjusted basis during the Bush presidential period as measured by Sharpe ratio. Conversely, the portfolio underperforms relative to the benchmark portfolio with Obama and Trump as presidents. However, the Sharpe ratio is sufficiently higher during the Trump presidential period, compared to Bush and Obama. The T Rowe Price Health Science Fund possesses positive Sharpe ratios in all presidential periods. The Sharpe ratio of the health care portfolio exceeds the ratio of the benchmark portfolio between 1997-2004 and 2005-2012, while the benchmark outperforms the health care fund during the Trump presidential period. The combined portfolio has a negative Sharpe ratio in the Bush- and Obama presidential periods, and a positive ratio with Trump as president. The benchmark outperforms the flight-travel sector on a risk-adjusted basis from 2013-2017. We argue that the risk-adjusted performance for all sector portfolios is significantly higher with Trump as president compared to Bush and Obama based on Sharpe ratios. Controlling for political party, the results do not support that Trump's effect on the stock market is related to his republican policies.

Furthermore, we provide evidence that all sectors are unable to generate excess return relative to the benchmark with Trump as president, as measured by the information ratio. The Fidelity Select Defense and Aerospace Portfolio generates a positive information ratio during the Bush presidential period. However, the information ratio is negative with Trump and Obama as presidents for the defense sector. Furthermore, the combined portfolio portrays a negative information ratio in the Trump presidential period, and a positive ratio with Bush and Obama as presidents. The T Rowe Price Health Science Fund has a negative information ratio in the interval 2013-2017, and when extending the Trump presidential period, the ratio is barely positive. However, the fund has a positive information value with Bush and Obama as presidents. Table 13 illustrates an evaluation of the thesis hypothesizes in terms of the level of support.

Table 13. Hypothesis Evaluation.

Note: The table illustrates an evaluation of the generated hypotheses. The hypotheses are portrayed in the left column. The “X” represents whether a hypothesis is corroborated or rejected based on the empirical results. Uncertain results are marked with “X” in the column “unclear”.

	Corroborate	Unclear	Reject
H1a: The election of Donald Trump will affect financial markets, leading to a higher mean return in the stocks of the health care sector.			X
H1b: The election of Donald Trump will affect financial markets, leading to a higher mean return in the stocks of the defense sector.			X
H1c: The election of Donald Trump will affect financial markets, leading to a lower mean return in the stocks of American airlines with international routes.			X
H1d: The election of Donald Trump will affect financial markets, leading to a higher mean return in the stocks of a value-weighted portfolio consisting of the health care sector, the defense sector, and the flight-travel sector.			X
H2a: The election of a Republican President will affect financial markets, leading to a higher mean return in the stocks of the health care sector.			X
H2b: The election of a Republican President will affect financial markets, leading to a higher mean return in the stocks of the defense sector.			X
H2c: The election of a Republican President will affect financial markets, leading to a higher mean		X	

return in the stocks of American airlines with international routes.

H2d: The election of a Republican President will affect financial markets, leading to a higher mean return in the stocks of a value-weighted portfolio consisting of the health care sector, the defense sector, and the flight-travel sector.

X

We find no evidence of abnormal returns in the U.S stock market as a result of Trump's presidency based on the alpha estimates, and accordingly we reject H1(a-d). Furthermore, we obtain insignificant alpha values for each sector from the Fama and French regression model from 1997-2001, thereby rejecting H2a,b. The airline portfolio does not have available data during the Bush presidential period, and the republican effect on the flight-travel sector is thus unclear. Furthermore, we find evidence that a portfolio consisting of the health care sector, the defense sector, and the flight-travel sector generates negative abnormal returns during the Bush – and Obama presidential periods, and accordingly we reject H2d. Correspondingly, we reject that the election of Donald Trump negatively affects the combined portfolio, as the portfolio performs much worse with Bush and Obama as presidents. We conclude that the election of Donald Trump increases the sector portfolios' performance compared to the Bush – and Obama presidential periods.

9. Summary and Conclusion

In this thesis, we apply an event study methodology to identify how changes in political leadership affects financial markets by investigating if the election of Donald Trump generates abnormal returns in the U.S stock market. The research question is thus: “How are financial markets affected by the election of Donald Trump?”. Donald Trump was elected president on November 8, 2016, after one of the most divisive elections in living memory. Skepticism over Trump’s entrance derived not only from his celebrity past, but also from his controversial campaign platform under the banner “Make America Great Again”. Preceding literature argues that political leaders influence financial markets, and studies illustrate that national elections affect stock market returns, leading to a lower mean return in the market as a result of future policy uncertainty. By investigating the election of Donald Trump, we contribute to existing literature on the relationship between finance and politics by analyzing a so far unexplored event. We apply theories from both economic - and political science, and use familiar financial methodologies such as the Fama and French three-factor model and the Jensen’s alpha approach, to calculate potential abnormal returns in the U.S stock market. Additionally, we utilize the Sharpe ratio and the information ratio as supplementary performance measurements to improve the accuracy of our results. We evaluate three different sectors to illustrate the potential effect the 2016 presidential election has on stock market returns. The three sectors are the defense sector, the health care sector, and the flight-travel sector. Furthermore, we construct a value-weighted portfolio consisting of all three sectors. Additionally, we estimate potential excess return under George Bush and Barack Obama to ensure that the republican party does not provide the results. We do not find evidence of abnormal returns in either direction in the U.S stock market with Trump as president based on the alpha estimates. However, we find evidence that a portfolio consisting of the health care sector, the defense sector, and the flight-travel sector generates negative abnormal returns during the Bush – and Obama presidential periods. Correspondingly, we reject that the election of Donald Trump negatively affects the combined portfolio, as the portfolio performs much worse with Bush and Obama as presidents. Changes in political leadership thus influence the economic policy of government which alters the risk-adjusted market returns as investors reallocate their investments. Additionally, we find evidence that the health care sector, the defense sector, and the flight-travel sector possess a sufficiently higher risk-adjusted performance with Trump as president, compared to Bush and Obama based on Sharpe ratio estimation. According to the information ratios, all sectors are

unable to generate excess return relative to the benchmark from 2013-2017. Controlling for political party, we find no evidence that Trump's effect on the U.S stock market is related to his republican policies. We conclude that the election of Donald Trump increases the sector portfolios' performance compared to the Bush – and Obama presidential periods.

9.1 Suggestions for Further Research

The relationship between politics and financial markets is a complex matter that is affected by various variables and factors. Accordingly, capturing the effect of changes in political leadership on stock market behavior suggests to be improbable in one analysis. Further research on the interconnections between finance and politics is thus adequate, where different angles and alternative methodologies should apply to guide us towards more decisive conclusions.

The immensely variation in literature on how financial markets react to changes in political leadership over time, combined with a potential survivorship bias in the constructed value-weighted airline portfolio, raise further questions regarding the interaction between financial market performance and political changes. One inquiry regards transitions in political party and previous governmental experiences. Future research should investigate these connections by studying financial markets' reaction in shifting from democratic policies to republican policies, and vice versa. Correspondingly, broader aspects of the relationship between financial markets and political changes may be uncovered. Furthermore, the political leader's "personal" factors such as work experience, education, age etc. might form market actors' perception of policies and thereby affect stock markets. Accordingly, research into personal aspects might provide useful.

Additional aspects of economic and institutional conditions as possible explanatory variables should be considered, and the possibility of interaction between the explanatory variables ought to be tested. Financial markets have had an outstanding development over the last forty years. Accordingly, the development of markets along with political development in the U.S is an interesting element to consider, as this feature is not addressed in this thesis. Furthermore, the effect of shifts in partisanship may differ between eras as a result of varying expectations of party policies, as well as a result of changes in the institutional framework. The latter further highlights the need to investigate the interaction effects between the possible explanatory variables.

Moreover, time specific effects could occur from particular trends such as financial bubbles. Another inquiry is to analyze investors' behavior during these particular trends by directly testing the assumed relationship in the game theoretical model through portfolio investment or other short-term investment measurements. Given that investors and politicians are affected by political uncertainty, research regarding financial actors assumed reaction to financial markets stability and uncertainty, should be conducted through a more qualitative research design.

Another possible research angle is to study the assumed causal relationship between financial markets and politics by examining how financial markets affect political changes. By doing this, one might obtain information to explain contradictory findings from preceding literature. Furthermore, it could be interesting to conduct an empirical analysis on Trump's effect on the U.S stock market with the application of a different methodology to see if the findings correspond.

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