INVESTING IN A PRESIDENT

by

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DEDICATION

I dedicate this work to my parents and wife. My parents believed in me and spent their hard-earned dollars to send me to obtain my education in the US. This is the day that you should be proud, my parents. My wife has been nothing but an absolute angel in helping and motivating me. For that, I am grateful.

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ABSTRACT

This paper examined the 2012 presidential election between Barack Obama and Mitt Romney on the stock market. Presidential elections pose a political uncertainty that can be hedged using the stock market. The paper constructs three portfolios using three different weighting methods: equally weighted, market capital, and individuals' donations. This study uses Fama and French 5-Factor model to estimate the annual return for Obama's and Romney's portfolios. The results show that Obama's portfolio generates an annual expected return of 11.8%, 35.6%, and 39.5% for equally weighted, market capital and donation, respectively. The results also show that Romney's portfolio generates annual expected returns of 5%, 26.2%, and -0.8% for equally weighted, market capital, and donation, respectively. Investors can adjust their investment portfolio position by observing the candidates' probability of winning the election. This paper establishes a stock market pattern before presidential elections that investors can capitalize on to ensure against the effects of political uncertainty upon the value of their investment portfolio.

CHAPTER ONE

INTRODUCTION

The price tag of the White House in the US is becoming increasingly expensive. The president of the United States of America holds the highest occupation in the country. The White House is one of three parts that the US government functions on, the others being the legislative and judicial branches. Through the oval office, the president is the head of the government and state. The roles of a sitting president include chief executive, diplomat, and legislator, among others. The president proposes the fiscal budget to the congress every year, which contains his/her recommendation of the federal spending that averages $3,252.9 billion dollars between 2000 and 2019, while controlling for inflation (Whitehouse, 2021).

Figure 1 presents a time series plot of the presidential candidates' fundraising between 1980 and 2020. The plot adjusts for inflation by using 1980's dollars. Presidential races used to be close in terms fundraising among winners and runner-ups between 1980 and 1996. After 1996, the winners managed to maintain higher fundraising than their opponent with only one exception. During the presidential election between Hillary Clinton and Donald Trump in 2016, Ms. Clinton raised $585,699,061 whereas Mr. Trump raised $350,668,436 based on individuals' donations (Federal Election Commission (FEC)). These figures serve as an indication as to the influence in the role of the president.

A president affects the stock market through the potential effects of the executive branch's actions upon the economy and the profitability of companies. Thus, the president poses a political uncertainty in the stock market. Presidential candidates campaign on various political

policies that they think would result in a better country. In a fair and uncorrupted democracy, a presidential election is an uncertain event that the market is endlessly adjusting to accommodate.

The continuous market fluctuation is demonstrated in the delay of declaring a winner for the 2000 presidential election between Bush and Gore. The announcement of the 2000 presidential election winner was delayed because of Florida's ballot debacle and the resulting recounts. The process took roughly a month to declare a winner formally. Consequently, the stock market responded significantly negatively to the initial delay (Nippani and Medlin, 2002).

This uncertainty yields two things: excessive volatility and market reactions to the policies proposed by political parties. The stock market experiences greater than average volatility in anticipating future events. Securities show higher risk due to volatility and, in response, generates greater returns or losses (Li and Born (2006); Bowes (2018)). Thus, the presidential election poses a political contingency that affects the stock market.

Investors may wish to account for the political uncertainty in portfolio formulation to manage risk. Risk management takes many forms, one of which is hedging. An example of hedging is a wheat farmer who plants in the spring and sells in the fall: the farmer is subject to price changes between the plants and harvesting. Thus, the farmer issues a futures contract at the current wheat price, known as a forward hedge. Hedging is typically used to invest in the securities or assets whose values move inversely relative to the current investment position.

This paper's central question is, can investors hedge the presidential election uncertainty by utilizing the information of individuals' donations to a presidential campaign? In other words, the paper examines the possibility of investors using the stock market as a hedging method for political uncertainty based on prior information. To that end, the paper investigates the relationship between the 2012 presidential election (Barack Obama vs. Mitt Romney) and the

stock market by constructing two independent presidential portfolios (one for Barack Obama and the other for Mitt Romney) as defined in the following discussions.

Hedging the presidential election can be manifested differently. For example, suppose an individual works for a firm that falls in Mitt Romney portfolio and observes that Mr. Romney is projected not to win the election. Not winning the election may limit the firm's growth and decrease the employees' raises. Thus, the individual buys Obama portfolio to offset the potential financial loss. Consider another example: suppose that the majority of an investor's current portfolio contains firms that fall in Obama's portfolio, and she observes that Obama's likelihood of winning the election is decreasing. Then, she can adjust her investment portfolio position by selling assets in Obama's portfolio and buying assets in Romney's portfolio.

The paper uses individuals' contributions to presidential campaigns to form the presidential portfolios. The FEC reports a considerable amount of information regarding campaign financing by government agencies, institutions, and individuals. The majority of campaign donations come from individuals (Ansolabehere et al., 2002). Ansolabehere and colleagues show that in the House races considered safe, 48% and 46% of campaign funds come from individuals and political action committees (PACs), respectively. They demonstrate that the cost of the U.S. Senate races differs depending on the importance and wealth of the state. The primary key that gives rise to the variation in cost between states is individual contributors. Therefore, an individuals' donation has an indispensable role in campaign financing. The paper uses individuals' contributions and donations interchangeably.

This paper's assumption is that campaign contributors are giving to one candidate based on self-interested reasons. Meaning, an employee would not donate to a candidate that would propose legislation that causes him/her to lose their job. Therefore, an individual chooses the

candidate and reveals her preference by donating to one political campaign versus the other. If a significant amount of individuals' working for one firm donating to one presidential campaign, then that serves as a proxy of the firm's preference for a presidential campaign.

This paper proposes three assets weighting methods: the first is an equally weighted method, the second method is to weigh the companies by their market capital, as suggested in the literature (Mattozzi, 2008), and the third method is to condition the weight on the amount of donation given by the individuals working for a publicly-traded corporation.

Therefore, if investors are able to identify the political leaning of publicly traded firms (Democrat or Republican) based on the individuals' donation to a presidential candidate, then investors would be able to build market portfolios to hedge the political uncertainty. The risks of using market portfolios built around a presidential candidate is the probability of not winning the election. Therefore, investors must use a reliable instrument for presidential candidates' probability of winning the election. This paper contributes to the literature by providing new evidence of the impact that the 2012 presidential election had on two presidential portfolios.

The following chapters of the paper give a short history on campaign financing laws followed by a literature review on the relation between the stock market and president elections. Chapter three provides the sources of data for the paper. Chapter four shows the construction of the portfolios and methodology. Chapter five includes results and discussion followed by the conclusion in chapter six.

CHAPTER TWO

LITERATURE REVIEW

Section two presents a brief history of campaign financing laws followed by a literature review on presidential elections and the stock market.

2.1 Short History on Campaign Financing Laws

The United States Congress dictates the laws at the federal level. On February 7, 1972, the Federal Election Campaign Act was enacted to raise the disclosure of federal campaign contributions (S. 382, 92nd). The Act paved the way for the establishment of the FEC in 1974 that enforces campaign financing laws.

The regulations attempt to increase the information on contributors, but as is the case with every regulation introduced, there are always loopholes. A contribution is classified as *soft* and *hard* money. If the contribution is given to the political parties or committees, it is soft money and emerged as a consequence of loopholes. If the contribution is given directly to a candidate, then it is hard money. There is a contribution limit on hard money, but not on soft money (Glasberg and Shannon, 2010). Regardless of the type of contribution, the identity of the contributor is disclosed to the FEC. Another loophole produced *dark* money. Dark money is a type of contribution given to, for example, non-profit organizations. There are no limits on this type of contribution and the identity of the contributors is not disclosed to the FEC (Lee and Keith, 2016).

The campaign financing laws are complex to analyze due to contribution types, loopholes, and limitations on the data. Thus, this paper reduces the complexity by investigating the impact of hard money on the stock price.

2.2 Presidential Election and Stock Market

This section reviews the impact of the presidential election cycle on securities' values. One speculates that a stock price responds to factors both inside and outside the firm. The presidential election is an outside factor that this paper estimates the impact of on two political parties' portfolios. To persuade logically, one requires a definition of an asset's price.

The value of a security is correctly priced when it reflects all available information related to the security; this definition is given by the Efficient Market Hypothesis (EMH). EMH's definition is not precise in interpreting the phrase "all available information." Fama deconstructs the term into three subsets: weak, semi-strong, and strong forms. The weak form states that the price reflects the historical prices. The semi-strong form conditions the security's price on publicly available information. The strong form asserts that price is derived from both public and private information (Malkiel and Fama, 1970).

The presidential election event fits into the semi-strong information subset. Suppose a candidate favored to win the election proposes legislation that limits (or enhances) the potential revenue in some sector of the economy. Then, it is expected that the average return in that sector would decrease (or increase) to adjust for the proposed legislation (Blacconiere and Northcut (1997); Chen and Bin (2001); Shapiro and Switzer (1993)).

The presidential election cycle plays a circular role in portfolio formation. Asset selection and investing time are the two factors that dominate the performance of the presidential

portfolios (Allvine and O'Neill, 1980). Furthermore, there is some evidence that the stock market follows a similar cycle to the presidential election. In comparing the stock market performance to the election cycle, the average stock prices decline in the first half and peak in the second half of a presidential term, especially if the incumbent is Republican (Wong and McAleer, 2009). Wong and McAleer attribute the Republican peaking in the second half to policy manipulation to win re-election. On the other hand, Jones and Banning examine the relationship between the presidential election and the stock market performance. They find that the election result and cycle have no predicative S&P 500 power in the stock market (Jones and Banning, 2009).

The stock market exhibits varying gains based on the political party winning the election. It is common knowledge that the Republican party brands itself as the party of less government (less regulation) and financial prudence (through lower spending and less taxation). These are only two principles among many for the Republican party, however, these two are beloved among Wall Street firms because they enable the firms to create various assets characterized by different risk levels. The market typically rejoices the days following the election of a Republican president peaking on the day following the election (Niederhoffer et al., 1970). Niederhoffer finds that the Dow Jones Industry (DJI) averages 1.12% and -0.81% following the election day for Republicans and Democrats, respectively. Niederhoffer establishes his finding using an event study method that examines the day, week, and month following the election.

Contrary to Niederhoffer's finding, the CRSP index with the three-month Treasury bill shows that the market, on average, experiences greater excess return under a president who is a Democrat, and the result is not driven by risk premium (Santa-Clara and Valkanov, 2003).

Powell's paper shows that the stock market does not prefer any political party once the research methodology is corrected. Powell argues that time-series regression carries heavily dichotomous explanatory variables, and as a consequence, the regression results can be false. Powell uses a simulation procedure to adjust for misleading inference in the regression. After that, Powell regresses a simulated stock return against the different presidential regimes. He finds that the stock market does not generate excess return because the president is Republican or Democratic (Powell et al., 2007).

This paper looks at President Barak Obama's second term. Some political scientists argue that an incumbent president carries an advantage over their political opponents by engaging in vote-winning behavior (Mayhew, 2008). Vote-winning behavior can manifest itself in different styles, such as the refusal to cut education and the Medicaid budget in 1995 for Clinton (Riley, 2020), Florida hurricanes in 2004 for Bush, and the 2008-2009 auto bailout by Obama.

On October 26, 2012, CNN reported its Ohio polls showing Obama leading by 4 percentage points by population. CNN claims that if Obama wins Ohio and the election, it is due to the auto bailout. The automobile industry is heavily represented in Ohio, with as many as 1-in-8 jobs connected to it (Burnett et al., 2012). However, the auto bailout was not actually initiated by President Obama. The Troubled Asset Relief Program (TARP) that made the auto bailout possible was introduced by the Bush Administration as a part of the Emergency Economic Stabilization Act in October 2008 (Segal, 2020). Regardless of the circumstances that made Obama's second term possible, this paper investigates the presidential election hedging procedure.

The research paper that inspires this study is written by Mattozzi (2008). Mattozzi studied the 2000 US election between Bush and Gore. Mattozzi's paper divides firms into Bush and

Gore portfolios based on their significant contribution to the campaign. After that, the performance of the portfolios, as well as the probability of each candidate winning the election, were tracked for six months prior to election day. Mattozzi finds that Bush's portfolio observed annual gains of 23% whereas Gore's portfolio observed annual declines of 7% (Mattozzi, 2008).

This paper is similar to Mattozzi's paper with some additions:

1. Increase in the sample size of time from six months to eighteen months.
2. Lower the condition of using *hard* and *soft money* to only *hard money*.
3. Using a Fama-French five factor model to reduce omitted variable bias.
4. Using different weighting methods to address self-selection bias.

CHAPTER THREE

DATA

There are five sources of the data that contributed to this paper. The first source is the Iowa Electronic Market (IEM), developed at the University of Iowa in 1988. IEM's objective is for research and to teach students to trade futures contracts between $5 and $500. However, the audience of the IEM grew to contain many educational institutions for research purposes and also opened to traders worldwide.

A subset of the IEM's future market is the political markets. The political markets offer two kinds of contracts: the Vote-Share market (VS) and the Winner-Takes-All market (WTA). Both markets are a 24-hour open market for trading contracts for the 2012 presidential election, and the difference between them is the payoffs. VS's payoff is determined by the percentage of popular votes cast for Republican or Democratic candidates. For example, a candidate receiving 25% of the popular vote, his contract would be worth 25 cents each. On the other hand, WTA is a contract that pays $1 when a candidate, Democratic or Republican, secures the higher percentage of the popular vote cast for the Democratic or Republican Party and $0 otherwise (U.S. presidential Election Market, 2012).

WTA is a zero-sum game, and it is a riskier security than VS. Thus, traders are more observant of who will win the election. Consequently, WTA is a more reliable instrument than VS in determining the likelihood of winning the election. This paper uses WTA's last price that measures the proportion of contracts that went for a political party on that day. This estimation approach results in values for the political party between 0 and 1. Then WTA on day t is the probability of winning the election for a political party on day t.

Figure 2 displays a time series plot of the probability of winning the presidential election using the WTA market from July 01, 2011, which is the day that the IEM began trading for the 2012 election, until November 06, 2012, which is election day. Both parties' probabilities ranged between 0.6 and 0.4 from July 2011 through July 2012. On August 08, 2012, the Democratic party's likelihood started to go beyond 0.6 but falls from 0.8 on September 28 to 0.66 on October 31. After October 31, the Democratic party's probability increases exponentially and closes at 0.985 on election day.

The second source is donation data abstracted from the Federal Election Commission. The total political contribution to Barack Obama's campaign is $742,601,914 for the 2012 presidential election, and 99% of the total was raised between 2011 and 2012. Whereas the total political contribution to Mitt Romney's campaign is $483,642,897 for the 2012 presidential election, and 99% of the total was raised between 2011 and 2012. Thus, the paper abstract the individuals' contributions to political campaign between 2011 and 2012.

The FEC presents data on each contributor to any political campaign. The FEC offers a detailed dataset of information on each donor, including the day of the contribution, their employer, and the contribution amount. Table 1 shows the proportion of individuals' contributions for each candidate in the 2012 presidential election for publicly traded firms. This paper uses individuals' donations as a proxy for political party preference on behalf of a company. Individuals' contributions are an indirect measure of the corporation's political preference.

This paper classifies companies into presidential portfolios based on three conditions similar to Mattozzi (2008):

1. Individuals work for a publicly traded firm between 2011 – 2012.

2. Individuals contributed to one candidate's campaign.
3. The total individuals' donations equal to or greater than two-thirds goes to one candidate's campaign.

In other words, the paper calculates the total individuals' donations given to Obama and Romney's campaigns. If two thirds or more of the total donations given by employees at a publicly traded company go to one candidate, then the company falls into that candidate's portfolio. Table one shows the proportion of donations for candidates by firms between 2011 and 2012 (FEC). Proceeding from table one, all of firms that meet the conditions for Obama and Romney's portfolios are formed in table two. Thus, Table 2 displays the firms in the presidential portfolios.

The third source is Yahoo finance that provides the daily adjusted stock prices for firms in Table 2. The fourth source is Macrotrends that supplies historical outstanding shares by firms in Table 2. Macrotrends provides the quarterly changes in the outstanding shares by firms. The investment community multiplies the current market share price of a company by the number of outstanding shares to estimate the market capital for that company. For example, if a company is trading at $50 and it has 100,000 outstanding shares, then its market capital is $5,000,000.

The final data source is Fama/French. This paper employs the daily Center for Research in Security Prices (CRSP) value weighted index in Fama/French five-factor model (5FF) (Fama & French, 2015). The 5FF is an extension of Fama/French three-factor model (3FF) (Fama & French, 1993). The 3FF model is an extension of the Capital Asset Pricing Model (CAPM) (Sharpe, 1964). CAPM relates an asset's return to its risk. Investment risk manifests differently, but it decomposes into systematic and unsystematic risk. Systematic risk serves as the base to the

market. For example, pandemic or geopolitical conflict impacts the market entirely and not one sector, whereas unsystematic risk is the direct risk of the asset.

CAPM uses risk-free asset as the base for return, then the market premium that measures the market's return beyond the risk-free asset. Thus, the CAPM asserts that the expected return on an asset is the return on risk-free asset plus the market premium. 3FF adds to the CAPM two more variables: small minus big (SMB) and high minus low (HML). The 5FF is 3FF with two more variables: robust minus weak (RMW) and conservative minus aggressive (CMA).

The construction of Fama/French five-factor is as follows: the companies are ranked from low to high based on the companies' market capital (a company's market capital is referred to as the company's size). Then they estimate the median of the market capital. After that, they divide companies into two groups: small and big based on the companies' size. For example, if the median market capital is $500M and a company's market capital is $250M, then the company is classified as small. After they classify companies into big or small, they estimate the companies' factors: size and book-to-market, size and operating profitability, lastly size and investment.

SMB is the size premium calculated as the average difference between small and large portfolios. SMB is the factor that measures a small company's size that produces higher returns relative to the stock market. HML is the value premium estimated as the average difference between value and growth portfolios. HML is the factor that measures value stock (stock trading at lower than book value is referred to as value stock) with a high book-to-market ratio generating higher return relative to the stock market. RMW is the profitability variable computed as the average difference between robust operating and weak operating profitability portfolios. RMW is the profitability factor that captures the momentum of the stock. Profitability factor measures a company reporting excess future earnings relative to the stock market. CMA is an

investment variable calculated as the average difference between conservative investment and aggressive investment portfolio. CMA is the investment factor that measures the company's investment in growth venture, which/ is likely to experience losses in return relative to the stock market (Hayes, 2020).

CHAPTER FOUR

METHODOLOGY

4.1 Equally Weighted Portfolios

The method of using equally weighted firms is the simplest and does not differentiate between the firms. The idea of this weighting scheme is to fix a reference point against the other two methods. This paper constructed two equally weighted indices. Obama's portfolio consists of the firms in Table 2 that fall under Democrat, while Romney's portfolio contains the firms under Republican.

Let t be the day, k be the company, and q be the portfolio (Obama or Romney). Then, P_{kqt} is the adjusted closing price of company k in portfolio q on day t. The weight given to each firm is one-tenth, because there are ten companies in each portfolio. Thus, the equally weighted portfolios are calculated as follows:

$$L_{qt} = \sum_{k=1}^{10} P_{kqt} * \frac{1}{10}$$

L_{qt} is the index (Obama or Romney) price on day t equally weighted.

4.2 Portfolios by Market Capital

There are five steps to constructing two weighted indices by market capital:

1. Estimating market capital by multiplying the stock price by total outstanding shares of company k.
2. Calculating the total sum of market capitals.

3. Estimating company k's weight by dividing the company's market capital on total market capital.
4. Multiplying the stock price by its weight.
5. Portfolio price equals to the summation of the product of stock price by its market capital weight

In other words, let N_{kqt} be the outstanding number of shares for company k in portfolio q on day t. The market capitalization is calculated as follows:

$$M_{kqt} = P_{kqt} * N_{kqt}$$

Thus, M_{kqt} is the market capital of company k in portfolio q on day t. Then,

$$W_{kqt} = \frac{M_{kqt}}{\sum_{k=1}^{10} M_{kqt}}$$

W_{kqt} is the weight of company k in portfolio q on day t (as shown in figures four and five). Finally,

$$G_{qt} = \sum_{k=1}^{10} P_{kqt} * W_{kqt}$$

G_{qt} is the index (Obama or Romney) price on day t weighted by market capital.

Figure 3 is a time series plot of firms' weights by market capital in Obama's portfolio. The top company in terms of market capital is Apple, followed by Google and Microsoft. The company with the lowest market capital is United Airlines. Figure 4 shows the time series plot of firms' weights by market capital in Romney's portfolio. The top company in terms of market capital is Exxon Mobil Corporation, followed by J.P. Morgan. The company with the lowest market capital is Blackstone.

4.3 Portfolios by Donation

The second weighting method is donation. There are nine steps to build presidential portfolios weighted by individuals' contributions:

1. Identify the political leaning of a publicly traded company based on individuals' contributions from FEC.
2. Obtain the individuals' contributions for that company.
3. Collapse the sum of multiple individuals' contributions given on the same day by the same employee.
4. As a consequence of the collapsing by employee, different rows for the same day would be created by different employee.
5. Merge the same days.
6. Create an array for total donation for company k.
7. Create an array for the total individuals' contributions by all companies
8. Divide company k's donation on day t by the total contributions on day t
9. Portfolio price equals to the summation of the product of stock price by its donations weight.

In other words, let d_{kqt} be the total donation given by company k in portfolio q on day t:

$$D_{kqt} = \frac{\sum_{t=1}^{t} d_{kqt}}{\sum_{k=1}^{10} \sum_{t=1}^{t} d_{kqt}}$$

D_{kqt} is the accumulated weight up to day t of company k in portfolio q. To avoid index forming bias, this paper accumulated total donation given by company k in portfolio q from the beginning 2011 up to July 1, 2011. After that day, marginal donation is added to the weights. Finally,

$$K_{qt} = \sum_{k=1}^{10} P_{kqt} * D_{kqt}$$

where K_{qt} is the index (Obama or Romney) price on day t weighted by donation.

Figures 5 and 6 show the weights of the firms by the political party. Figure 5 depicts a time series plot of firms' weights by individuals' donations in Obama's portfolio. The top company in terms of donation is Microsoft, followed by Google. On the other hand, the company with the lowest donations is General Motors. Figure 6 shows a time series plot of firms' weights by individuals' donations in Romney's portfolio. The highest company in terms of donation is Credit Suisse, followed by Morgan Stanley. In contrast, the company with the lowest donations is Exxon Mobil Corporation. The greater the weight of a firm, the further its role in determining the Obama or Romney indices' price.

The main difference between Figures 3 and 5 is that Apple is ranked in the lower half in terms of donation, whereas it dominates the market capital. In Romney's portfolio, Figures 4 and 6 demonstrate that Exxon Mobil Corporation weighted the lowest in terms of donation, but is the heavy-weight firm in terms of market capital.

Figure 7 is a normalized time series subplot of Obama's and Romney's portfolios and the S&P 500. The upper subplot in Figure 7 is asset prices equally weighted. Obama’s portfolio generates 20.52% return, while Romney’s portfolio declines and loses 3.65%. Obama's index includes technology companies primarily, whereas the Romney index comprises mostly financial organizations. The middle subplot in Figure 7 shows asset prices weighted by market capital. The top-performing asset is Obama’s portfolio, followed by the S&P 500 and then Romney’s portfolio. Obama’s portfolio generates 23.46% return, while Romney’s portfolio only makes

5.59%. The lower subplot in Figure 7 shows asset prices weighted by donation. Both assets have produced positive returns: Romney's portfolio generates a 54.18% increase, whereas the Obama index observes a 10.93% increase by November 06, 2012. This lower subplot presents a different story than the upper and middle plots: the upper and middle plots display Obama's portfolio as the best performing asset, where the lower plot points to Romney's portfolio as the best-performing asset.

One should notice that Obama's portfolio weighted by market capital makes around a 23.46% return. However, simply conditioning the weight on the donation, Obama's portfolio loses more than half of its return. On the other hand, Romney's portfolio generates more than nine times its return simply by weighting on donation.

4.4 Regression

One of the CAPM assumptions is the single period, meaning that investors buy and sell portfolios sharing the same time horizon. Mattozzi's paper uses the CAPM with IEM as one more explanatory variable. The model estimates the portfolios' excess return and the market excess return on the same day, but the return of IEM is a one day lag. Therefore, the model is not consistent with the CAPM assumptions. This paper corrects for the single period and all variables are computed as the continuously compounded daily rate of returns as (Bowes (2018); Ahmed and Suliman (2011)).

Daily rate of returns:

$$R_{qt} = \frac{P_{qt} - P_{qt-1}}{P_{qt-1}}$$

The following regression model was used:

$$\left(R_{qt} - RF_t \right) =$$

$$\alpha_{qt} + \beta_{qt} R_{IEM_t} + \beta_{1t}\left(R_{M_t} - RF_t \right) + \beta_{2t} R_{SMB_t} + \beta_{3t} R_{HML_t} + \beta_{4t} R_{RMW_t} + \beta_{5t} R_{CMA_t} + \varepsilon_{qt}$$

$R_{qt} - RF_t$ is the excess daily return on portfolio q on day t. R_{IEM_t} is the daily return on IEM. R_{IEM_t} is the presidential factor that serves to estimate the changes in the presidential portfolios return in response to the changes in presidential candidate's probability of winning the election. $R_{M_t} - RF_t$ is the market premium that measures the systematic risk. The market is defined as all stocks traded in NYSE, AMEX, and NASDAQ. R_{SMB_t} is the size premium. R_{HML_t} is the value premium. R_{RMW_t} is the profitability variable. R_{CMA_t} is investment variable.

The comparative static of this paper is:

$$\frac{\partial\left(R_{qt} - RF_t \right)}{\partial R_{IEM_{t-1}}} > 0$$

In other words, as the probability of winning the election for candidate q increases, the market index for candidate q is expected to increase. On the other hand, as the probability of winning the election for candidate q decreases, the market index for candidate q should decreases.

This paper investigates the autocorrelation of the daily return using the Durbin-Watson statistic test. The Durbin-Watson statistic ranges from 0 to 4, and at point 2, there is no autocorrelation. Obama and Romney's portfolios show Durbin-Watson statistics around two regardless of the weighting method. Additionally, the paper uses the autocorrelation function (AF) and the partial autocorrelation function (PAF) to test if there is a significant lag. AF and PAF show no significant lag return.

Figure 8 shows scatter subplots of Obama's portfolio prices versus the probability of winning the election. If there were a relation between Obama's portfolio and the probability, one would expect the data points to move toward upper right in the plots. Indeed, Figure 8 shows the expected data movement regardless of the weighting types. However, the bottom subplot in Figure 8 is Obama's portfolio weighted by donation, which shows a less obvious relation between the probability and the security price. This could be attributed to market volatility causing a wild swing in the portfolio price. Overall, Obama's portfolio shows a positive correlation between the asset's price and the probability of winning the election.

Figure 9 shows scatter subplots of Romney's portfolio prices versus the probability of winning the election. Figure 2 had shown Romney's probability of winning as low and declining when approaching the election. Thus, one expects the data points to move toward bottom left of the plot. However, that is not the case in Figure 9. It appears that the probability of winning the election has little to no correlation between the asset's price and the probability.

Finally, this paper uses a robust estimation method to ensure against outliers. Huber's M-estimator is the estimation model used among all other candidates (Huber, 1964). The other candidates are Random Sample Consensus Algorithm (RANSAC) (Fischler & Bolles, 1981) and Theil Sen regression (Sen, 1968). This paper ensures that Huber's method is the most accurate model to estimate the data on hand.

Figures 8 and 9 also display linear, Huber, RANSAC, and Theil Sen estimation methods for Obama's and Romney's portfolios, respectively. The upper subplot in Figures 8 and 9 are portfolios equally weighted, followed by market capital, then donation. The figures show the price of the portfolios versus the probability of winning the election for that candidate.

Regardless of the portfolio weighting method, it appears that Huber's method is fitting the data the most consistently.

Huber’s estimation method is a weighted linear regression. Meaning the method assigns less weight to outliers and thus carries a better estimation for coefficients than the ordinary least squares. Yu and Yao create simulation and actual data to investigate different robust estimation methods in efficiency and breakdown points. They find that Huber’s method is one of the best estimating methods that has high breakdown points and efficiency (Yu & Yao, 2017).

CHAPTER FIVE

RESULT AND DISCUSSION

This chapter presents descriptive statistics, assets' price versus the probability of winning election, and regression tables. Table 3 is a descriptive statistic for the dependent and independent variables between July 1, 2011, and November 6, 2012 (a.k.a investment period). Obama EW and Romney EW are indices equally weighted. Obama MC and Romney MC are indices weighted by market capital. Obama D and Romney D are indices weighted by donation. DEM and REP are the Iowa Electronic Markets probabilities for the 2012 presidential election for Democratic and Republican candidates, respectively. Lastly, The S&P 500's statistic is a proxy for the stock market.

All portfolios register means and medians close to each other indicating that securities prices are stability. Moreover, investors use a range of techniques to measure the riskiness of an asset and one of them is standard deviation (SD). SD estimate the security price movement around its mean. A high SD of a security signifies a risker asset. For example, Obama's portfolios (equally weighted, market capital, and donations) SD are higher than Romney's portfolios SD. This could imply that Obama's portfolios are risker assets, but SD does not distinguish between price movement even though the securities are generating greater return relative to the mean.

Investors use asset's SD to assess risk, but also use kurtosis. Kurtosis measures the weight of the data distribution tails. The normal distribution exhibits kurtosis of 3. Excess kurtosis (measured as observed kurtosis minus 3) is used to compare the normal distribution against the asset's distribution. Obama EW, Romney EW, Obama MC, Romney MC, Obama D,

and Romney D show negative excess kurtosis indicating that the portfolios follow platykurtic distribution. Assets (such as the portfolios on hand) that follow platykurtic distribution are consider low risk. In other words, there are less outliers in distribution resulting in low probability of generating extreme returns.

DEM and REP are the only variables that register positive excess kurtosis. Recall that Figure 2 shows the probability of winning the election: where both candidates' probabilities range between 0.6 and 0.4. The Democratic party's probability gets closer to 1 and the Republican party's probability gets closer to 0 as the election day approaches. This divergence of the probability is the cause of having positive excess kurtosis for DEM and REP. The S&P 500 indicates close mean and median price over the investment period. However, the range is $366.54 (range is the difference the maximum and minimum price) indicating some volatility in the market.

The stock market is inherently uncertain because no known finite factors are predicting the market. However, researchers theorize and examine factors that act in determining an asset's return. The first type of evidence for this paper is a time series plot of the portfolio prices attended by the probability of winning the election.

Figure 10 presents the time series of Obama's portfolios by weight types with the probability of winning the election superimposed. The probability ranges from dark grey indicating a low probability to dark red indicating a high probability. Obama's probability of winning the election ranges between 0.5-1. If the probability of winning the election affects Obama assets' prices and the probability increases, it is expected that as the asset moves towards election day, it must produce higher prices, and the probability darkens.

The top and middle plots of Figure 10 are Obama's assets equally weighted and weighted by market capital, respectively. Both plots attest that there is some evidence that the probability of winning the election plays a part in determining asset price. At the beginning of the period, asset price and the probability are low. When approaching election day, asset price and the probability both increase. However, there is no one-to-one effect between the probability of winning the election and the asset price.

Examining the top and middle plot of Figure 10 shows that after October 2011, both assets gained in return, but the probability is low. The bottom plot of Figure 10 is Obama's portfolio weighted by donations. The plot shows the same pattern as the other weightings method, but between mid-August 2011 and mid-October 2011, the asset gained and lost in return while sustaining low probability.

Figure 11 shows the time series of Romney's portfolios by weight types, colored with the probability of winning the election. The probability ranges from dark grey indicating a low probability to dark red indicating a high probability. Romney's probability ranges between 0.0-0.5. If the probability of winning the election affects Romney's asset prices and the probability decreases, it is expected that as the asset moves towards election day, it must produce lower prices, and the probability lightens.

The top, middle, and bottom plots of Figure 11 are Romney's assets equally weighted, weighted by market capital, and weighted by donation, respectively. All plots show losses and gains in return while maintaining a high probability of winning the election between July 2011 and December 2011. Furthermore, as the election day approaches, all assets generate some return while Romney's probability of winning the election decreases. The relation between Romney's asset price and the probability suggests that the probability of winning the election provides little

to no evidence in determining asset price. The second type of evidence for the paper is the regression results.

5.1 Regressions Results

The investment strategy for this paper is buy and hold. Investors buy Obama's portfolio or Romney's portfolio on July 01, 2011 and hold the securities until November 06, 2012. Table 4 shows the robust linear models for Obama's excess return equally weighted, weighted by market capital then weighted by donation. For variable coefficients equally weighted in Table 4, alpha is the excess return relative to the market. Expressly, Obama's portfolio makes 0.059 in excess return relative to the market over the investment period.

IEM's return is the daily changes in the probability of winning the election for Obama or Romney. IEM's return is the accumulated daily changes in the probability of winning the election for both candidates. Thus, IEM's coefficient is the expected correlation between the portfolio's performance and the accumulated probabilities of winning the election over the investment period. IEM's return is significantly correlated with Obama's equally weighted portfolio by 0.2169.

Obama's portfolio equally weighted is significantly exhibiting less volatility relative to the market by 0.8456 over the investment period. The portfolio significantly correlates with the average return on the nine big stocks, the average value, the average robust, and the average aggressive portfolios, respectively over the investment period.

For variable coefficients weighted by market capital in Table 4, alpha is the excess expected returns compared to the market by 0.1082 over the investment period. IEM's return

correlates with Obama's portfolio weighted by market capital by 0.4239, significantly over the investment period.

Obama's portfolio weighted by market capital significantly manifests limited volatility relative to the market by 0.2444 over the investment period. The portfolio significantly correlates with the average return on the nine big stocks, the average value, and the average aggressive portfolios by 0.7877, 2.0479, and 1.0666, respectively, over the investment period.

For variable coefficients weighted by donation in Table 4, alpha is the excess expected returns compared to the market by 0.0728 over the investment period. IEM's return correlates with Obama's portfolio weighted by donation by 0.2367, significantly over the investment period.

Obama's portfolio weighted by donation significantly demonstrates low volatility relative to the market by 0.1808 over the investment period. The portfolio significantly correlates with the average return on the nine big stocks, the average value, and the average aggressive portfolios by 1.3971, 2.359, and 1.539, respectively, over the investment period.

Regardless of the weighting method, IEM's coefficients are consistent with the theory presented. In other words, the theory predicted that as the probability of candidate q winning the election increases, then the return for portfolio q increases as well.

Table 5 shows the robust linear models for Romney's excess return equally weighted, weighted by market capital then weighted by donation. For variable coefficients equally weighted in Table 5, Romney's portfolio generates a negative return compared to the market over the investment period by 0.0029. IEM's return is insignificant, decreasing Romney's portfolio return over the investment period. The portfolio shows low insignificant volatility relative to the market by 0.8034 over the investment period.

For variable coefficients weighted by market capital in Table 5, alpha is the excess expected returns compared to the market by -0.0013. IEM's return is insignificant decreasing Romney's portfolio return over the investment period by 0.0118.

Romney's portfolio weighted by market capital significantly demonstrates low volatility relative to the market by 0.8947 over the investment period. The portfolio significantly correlates with the average return on the nine small stocks, the average value, the average robust, and the average aggressive portfolios by 0.1999, 1.1, 0.351, and 0.6191, respectively, over the investment period.

For variable coefficients weighted by donation in Table 5, alpha is the excess expected return compared to the market by 0.2689. The coefficient indicates that the firms that invested heavily in Romney enjoy return gain. However, this indication may imply why the firms that invest more into a candidate are better performers than those that do not. IEM's return correlates with Romney's portfolio to decrease by 0.1407, significantly over the investment period. Using the donation method is clear evidence that as Romney's probability of winning the election decreases, the change in Romney's portfolio return decreases as well.

However, the portfolio's generous return is accompanied by high volatility. The portfolio displays high significant volatility relative to the market by 2.3328 over the investment period. The portfolio significantly correlates with the average return on the nine big stocks, the average growth, the average weak operating profitability, and the average aggressive portfolios by 3.0478, 1.2782, 3.3751, and 1.433, respectively, over the investment period.

Tables 4 and 5 present the predicted results showing that as the probability of winning the election increases, the return on the portfolio increases in response to the probability over the investment period. Similarly, the results show that as the probability of winning the election

decreases, the return on the portfolio also decreases over the investment period. The annual expected returns for Obama's portfolio are 4.35%, 7.94%, and 5.36% for equally weighted, market capital and donation, respectively, whereas the annual expected returns for Romney's portfolio are -0.22%, -0.10%, and 19.37% for equally weighted, market capital, and donation, respectively.

Romney's portfolio weighted by donation produces the highest annual expected return, but the return stems from excessive risk. Also, the figures of excess returns do not reflect the market volatility and the probability of winning the election. Accounting for market risk and presidential election by using Mattozzi's formula points at different conclusion.

Mattozzi's formula accounts for excess portfolio return, market premium, and presidential election probability. The presidential election's coefficient is multiplied by a shock by a marginal change in the probability from 0.50 to 0.51. The annual expected return for Obama's portfolios by Mattozzi's formula are 11.8%, 35.6%, and 39.5% for equally weighted, market capital, and donation, respectively. Whereas the annual expected return for Romney's portfolios by Mattozzi's formula are 5%, 26.2%, and -0.8% for equally weighted, market capital, and donation, respectively. Regardless of the weighting types, Obama's portfolio generates a higher annual expected return than Romney's portfolio. Additionally, Romney's portfolio weighted by donation generated the highest excess return, but it produces a negative annual expected return when accounting for market volatility and election probability.

Mattozzi's paper uses market capital as the weighting method. Holding the weighting method constant between Mattozzi's paper and this paper, there is a difference in findings: Mattozzi shows that the annual expected return for Bush's portfolio (Republican) is 23% and for Al Gore's portfolio (Democrat) is 7%. This paper shows that the annual expected return for

Romney's portfolio (Republican) is 26.2%, and Obama's portfolio (Democrat) is 35.6%. Different market conditions yield different results. The stock market is unpredictable due to the range of factors that determine the stock price. As such, the finding of the 2000 U.S. presidential election is not the same as the 2012 election. Moreover, the finding of this paper and other similar papers are not generalizable to other presidential cycles because there are always different market conditions that lead to different results. The point of this paper and others is to begin to understand the stock market pattern.

CHAPTER SIX

CONCLUSION

This paper investigated the process of hedging the presidential election for the United States of America using public donation information disclosed by the FEC. For a publicly traded firm, an investor can identify the leaning of the firm as Democrat or Republican. Then using a reasonable method to estimate the likelihood of that party winning the election, traders can construct portfolios that are able to offset potential financial losses in response to different political platforms.

This paper examined the 2012 presidential election between Barack Obama and Mitt Romney on the stock market. The paper constructed three portfolios using three different weighting methods: equally weighted, market capital, and donation. This study uses Fama and French 5-Factor model to estimate the annual return for Obama's and Romney's portfolios. The results show that Obama's portfolio generates an annual expected return of 11.8%, 35.6%, and 39.5% for equally weighted, market capital and donation, respectively. The results also show that Romney's portfolio generates annual expected returns of 5%, 26.2%, and -0.8% for equally weighted, market capital, and donation, respectively.

Based on these results, the general investment approach of this paper is to use individuals' presidential campaign contributions to create two independent portfolios: one containing companies for the Republican candidate and the other for the Democratic candidate. The investor would then use some measure of each candidate's likelihood of winning the election to determine which securities to buy or sell.

One would not expect that the estimated results of this paper to be generalizable to other election cycles because there is great uncertainty in the market. However, the essential point of this paper and other papers regarding this subject is to establish a pattern that the stock market follows approaching a presidential election day. Investors can utilize this pattern to hedge that event.

Campaign financing laws in the US are complicated, but future research may investigate the price that the market as a whole would pay for a change in campaign laws. Moreover, there is little known on the role that dark money plays in the stock market.

Figure 1. Presidential candidates' fundraising, a time series plot of the candidates' fundraising for the presidential election in the United States of America. All dollars are based on the 1980's dollar. Source: Federal Election Commission

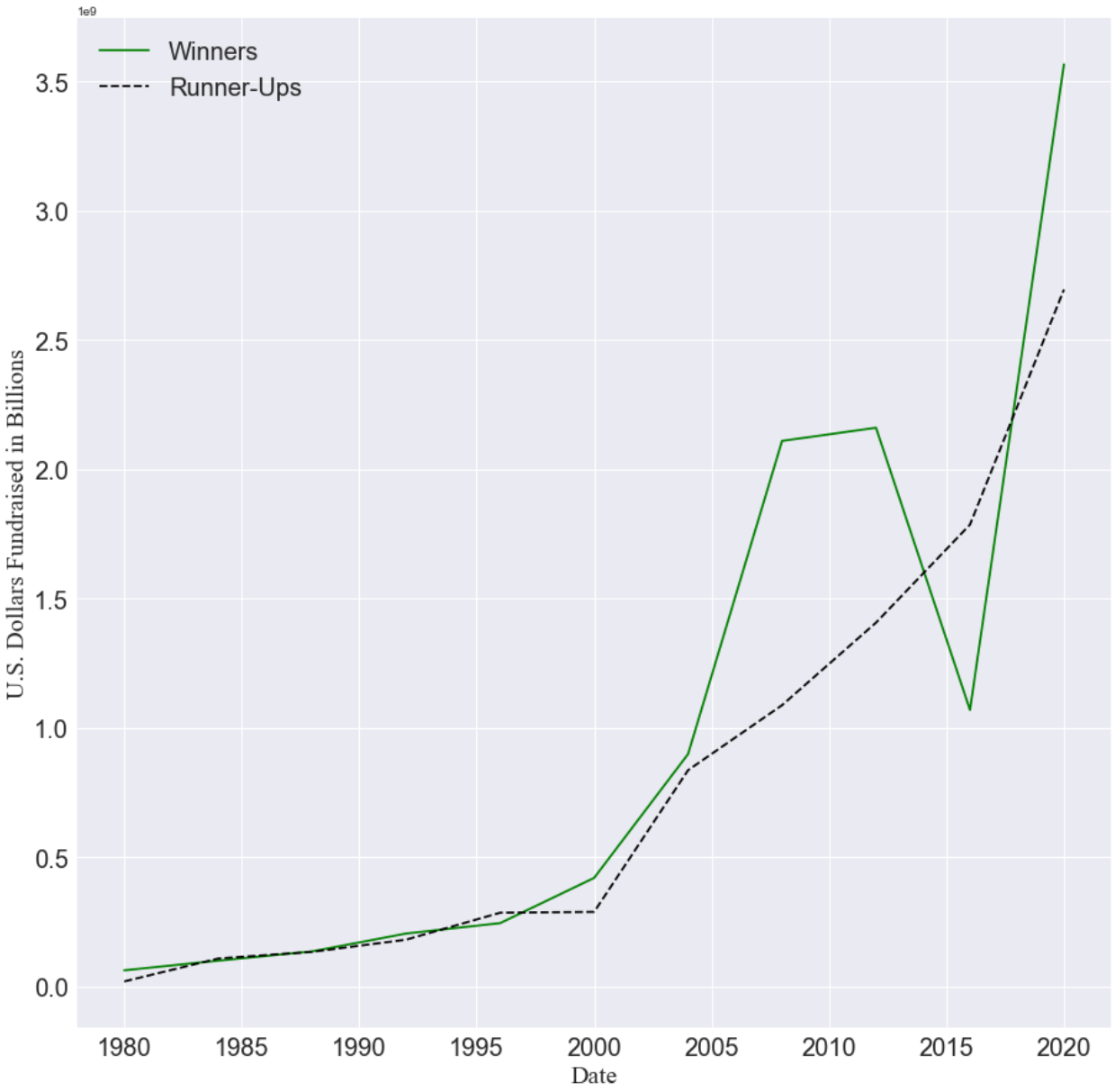

Figure 2. Election probability, a time series plot of the probability of winning the presidential election using winner-takes-all market from 07/01/2011 to 11/06/2012. Both parties' probabilities ranged between 0.6 and 0.4. On August 08, 2012, the Democratic party's probability started to go beyond 0.6, but it falls from 0.8 on September 28 to 0.66 on October 31. After that, it starts to increase and finishes at 0.985 on election day. Source: Iowa Electronic Markets.

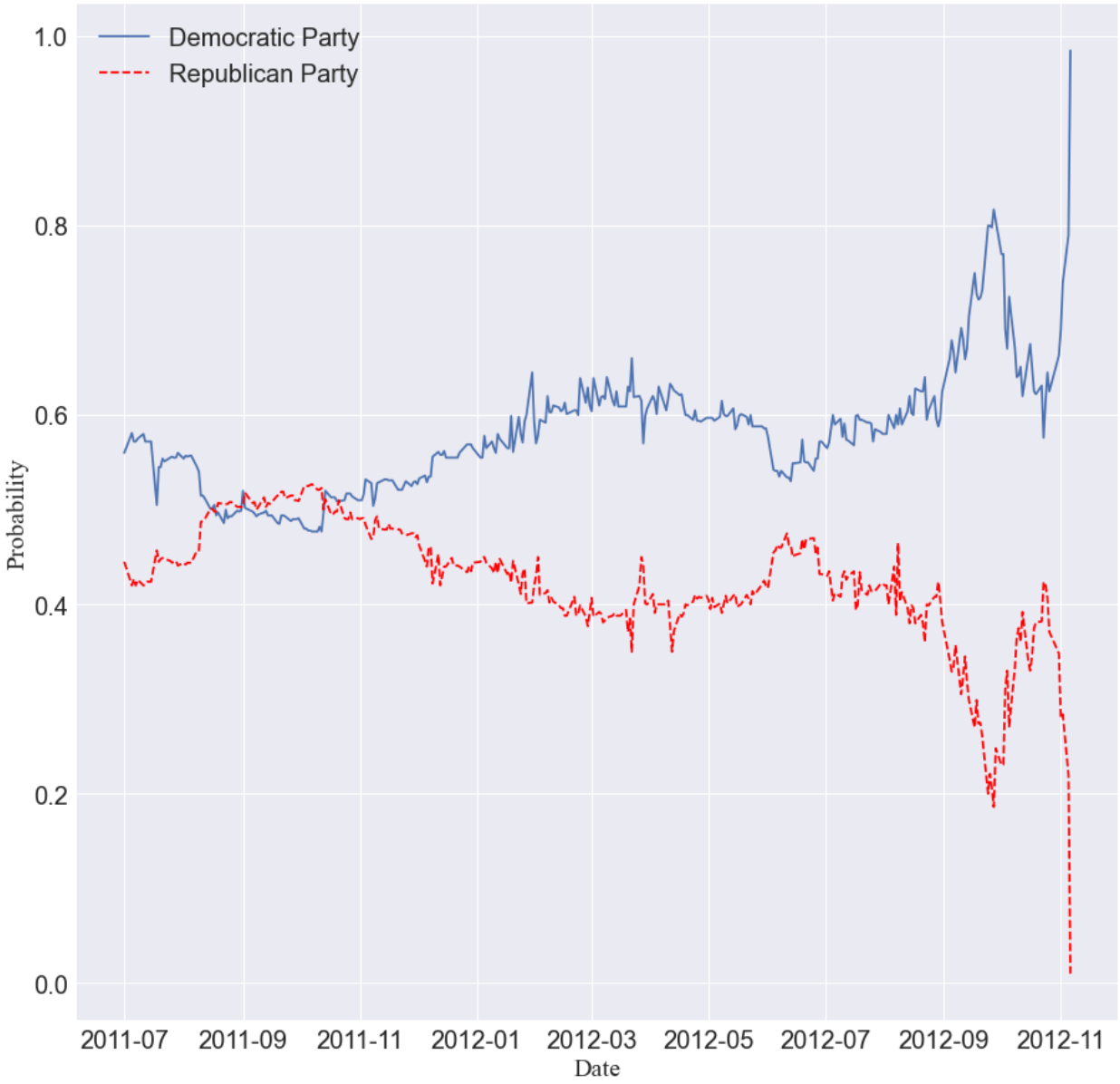

Figure 3. Obama's portfolio weights by market capital, a time series plot of firms' weights by market capital in Obama's portfolio from 07/01/2011 to 11/06/2012. Any given day, the sum of the firms' weights equal to 1. The top company in terms of market capital weights is Apple, followed by Google and Microsoft. On the other hand, the bottom company is United Airlines.

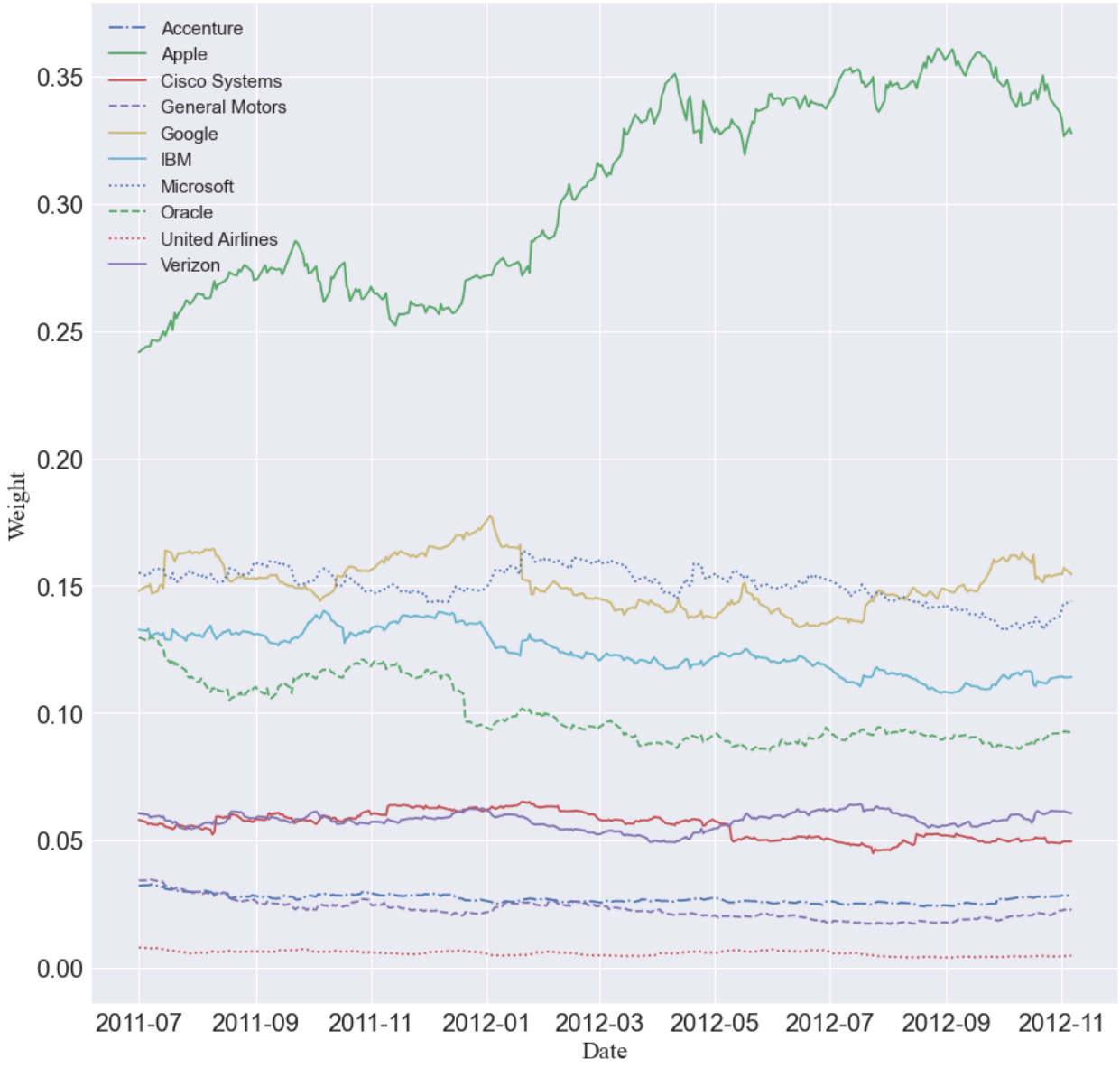

Figure 4. Romney's portfolio weights by market capital, a time series plot of firms' weights by market capital in Romney's portfolio from 07/01/2011 to 11/06/2012. Any given day, the sum of the firms' weights equal to 1. The top company in terms of market capital weights is Exxon Mobil Corporation, followed by J.P. Morgan and Goldman Sachs. On the other hand, the bottom company is Blackstone.

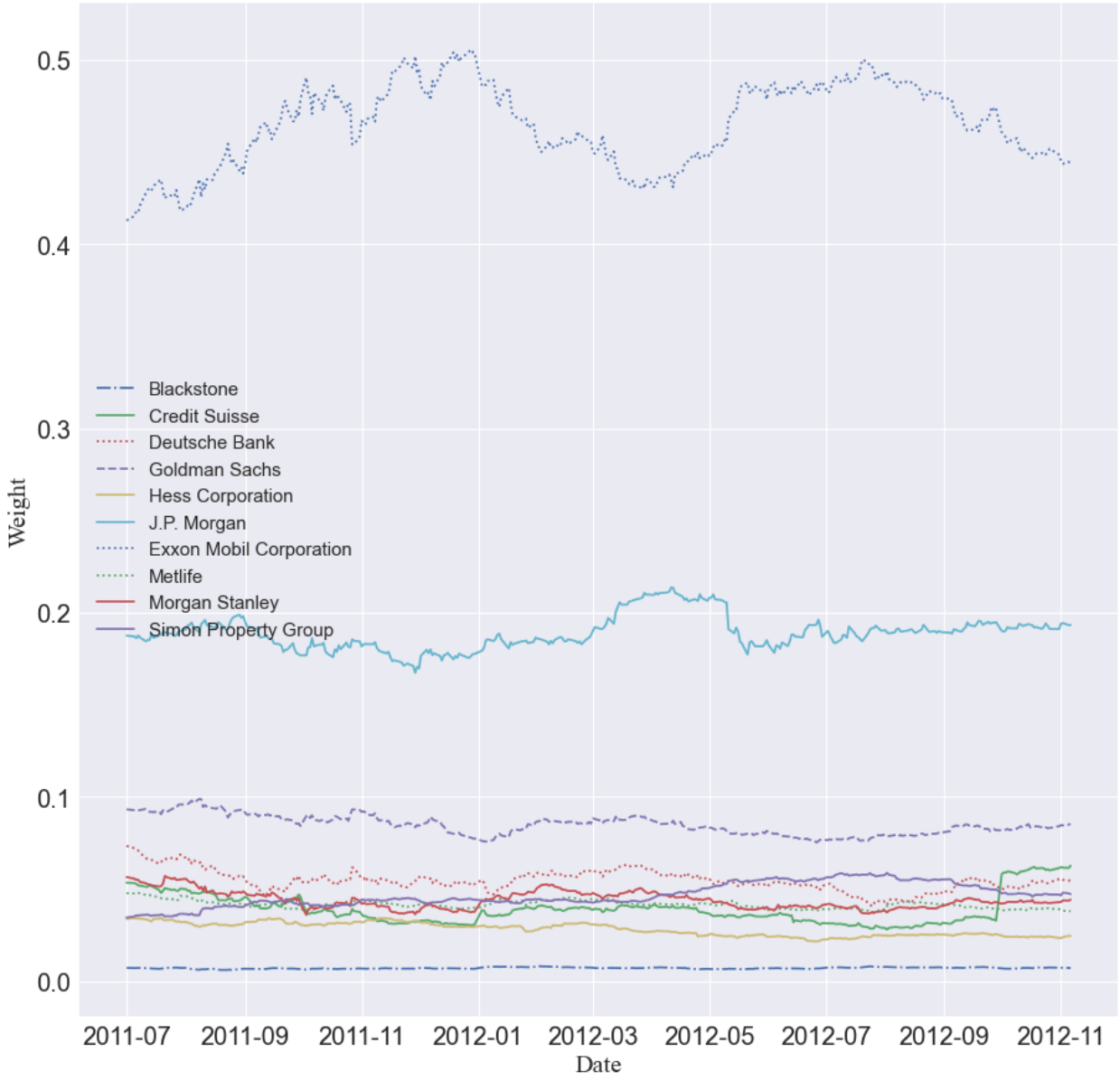

Figure 5. Obama's portfolio weights by individuals' contributions, a time series plot of firms' weights by individuals' donation in Obama's portfolio from 07/01/2011 to 11/06/2012. Any given day, the sum of the firms' weights equal to 1. The top company in terms of donation is Microsoft, followed by Google. On the other hand, the bottom company is General Motors. Source: Federal Election Commission.

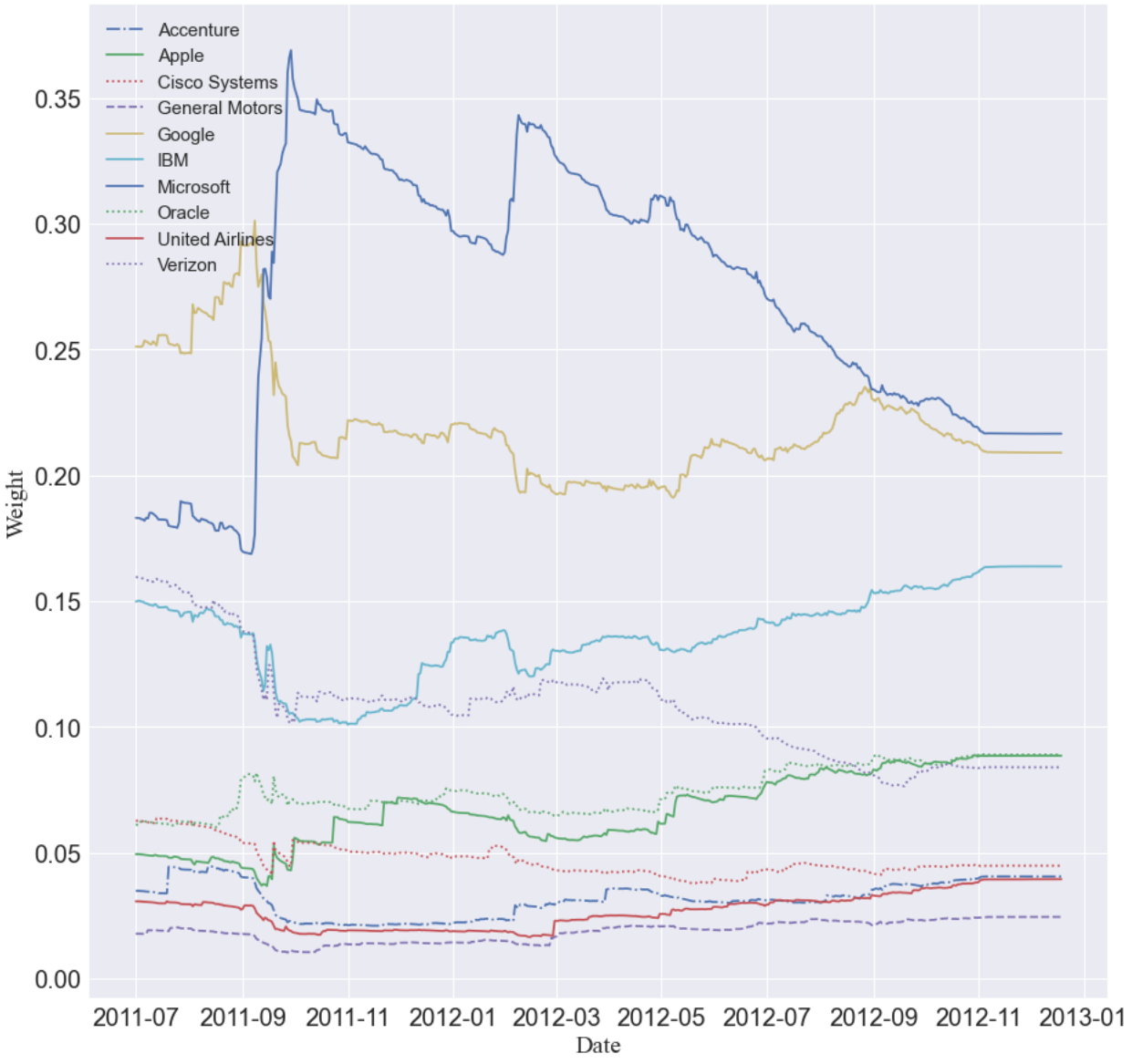

Figure 6. Romney's portfolio weights by individuals' contributions, a time series plot of firms' weights by individuals' contributions in Romney's portfolio from 07/01/2011 to 11/06/2012. Any given day, the sum of the firms' weights equal to 1. The top company in terms of donation is Credit Suisse, followed by Morgan Stanley. On the other hand, the bottom company is Exxon Mobil Corporation. Source: Federal Election Commission.

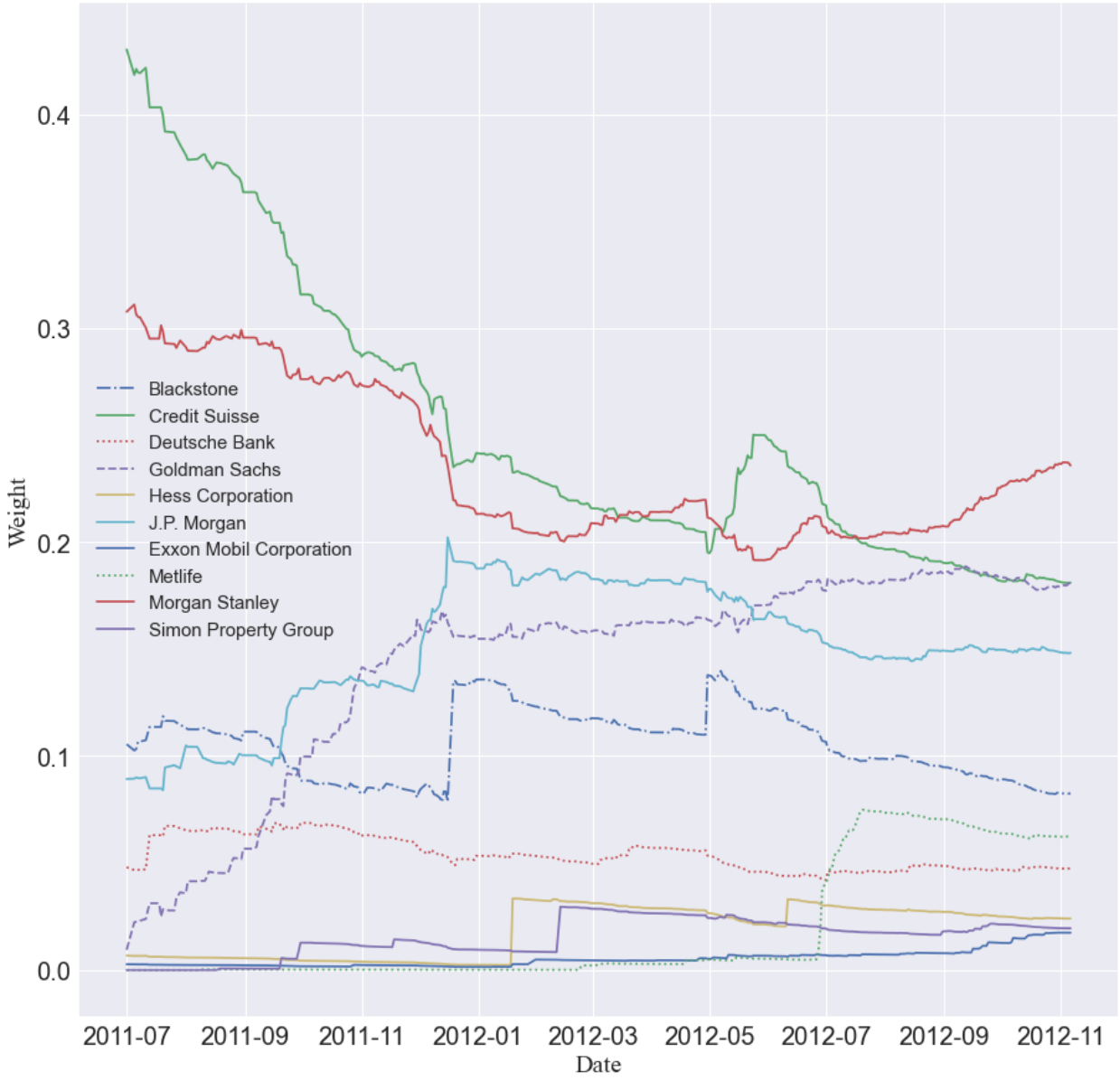

Figure 7. Asset prices for weight types, a normalized time series subplots for Obama's and Romney's portfolios by weight types. The top plot is equally weighted portfolios. Obama exceeds Romney over the entire period. The middle plot is assets weighted by market capital. Obama overall outperforms Romney. The bottom plot shows assets weighted by donation. Obama's portfolio generates a greater return than Romney's portfolio from July 01, 2011, until October 1, 2011. After October 1, Romney's portfolio takes over and stays above until election day.

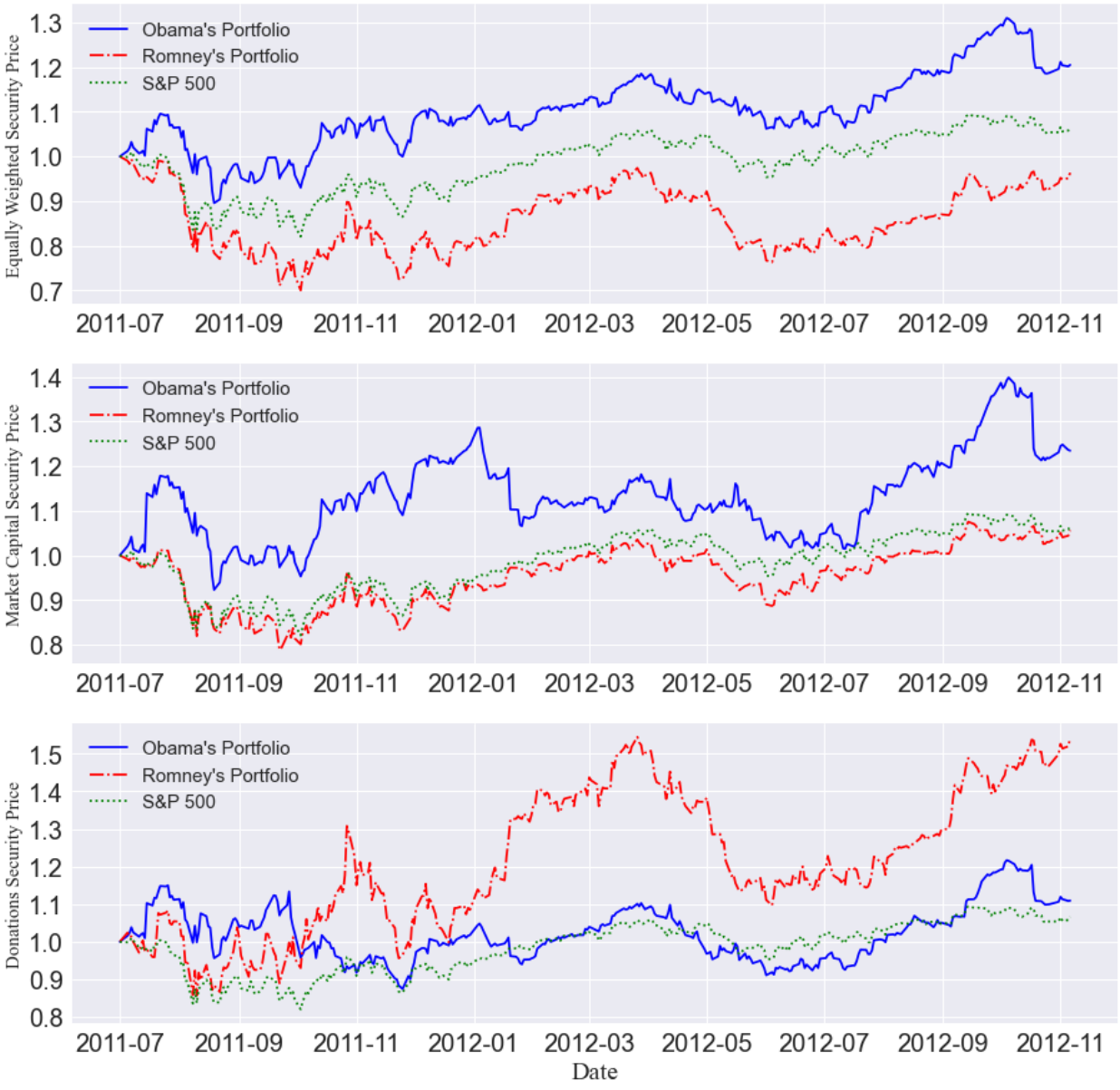

Figure 8. Regression types for Obama's portfolio, displaying some robust regression types for Obama's portfolio by weighting method versus the probability of winning the election. The estimation methods are Linear, Huber, RANSAC, and Theil Sen. The top subplot is Obama's portfolio equal weights, the middle subplot weighted by market capital, and the bottom one is weight by individuals' contributions.

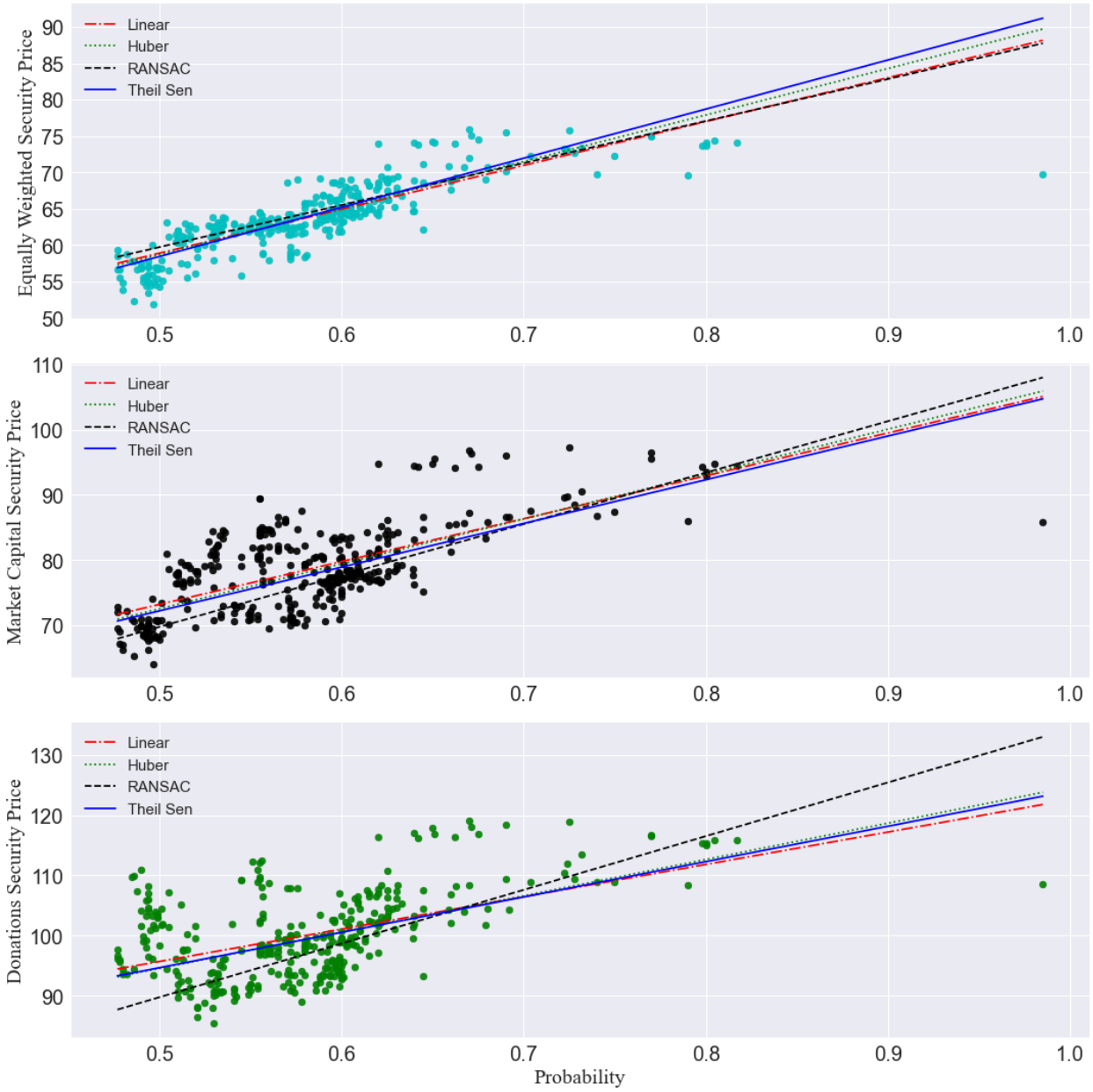

Figure 9. Regression types for Romney's portfolio, the figure shows several robust regression types for Romney's portfolio by weighting method versus the probability of winning the election. The estimation methods are Linear, Huber, RANSAC, and Theil Sen. The top subplot is Romney's portfolio equal weights, the middle subplot weighted by market capital, and the bottom one is weight by individuals' contributions.

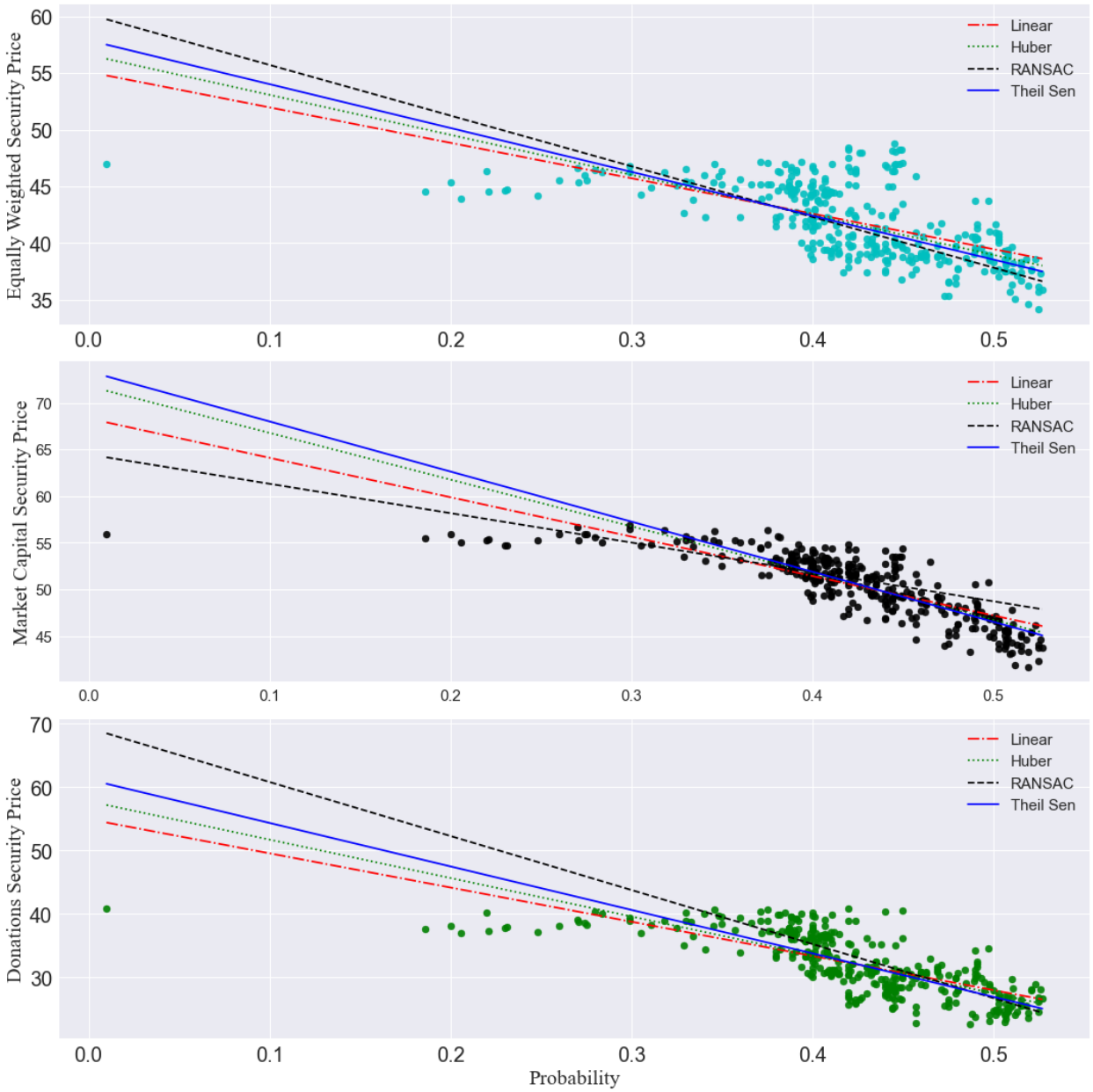

Figure 10. Obama's portfolios by weight type and the probability of winning the Election, a time series plot of Obama's portfolios by weight type showing the probability of winning the election in a color gradient. The probability of winning the election ranges from dark grey indicating a low probability to dark red indicating a high probability. The top plot shows Obama's asset equally weighted. The middle plot displays Obama's asset weighted by market capital. The bottom plot presents Obama's asset weighted by individuals' contributions.

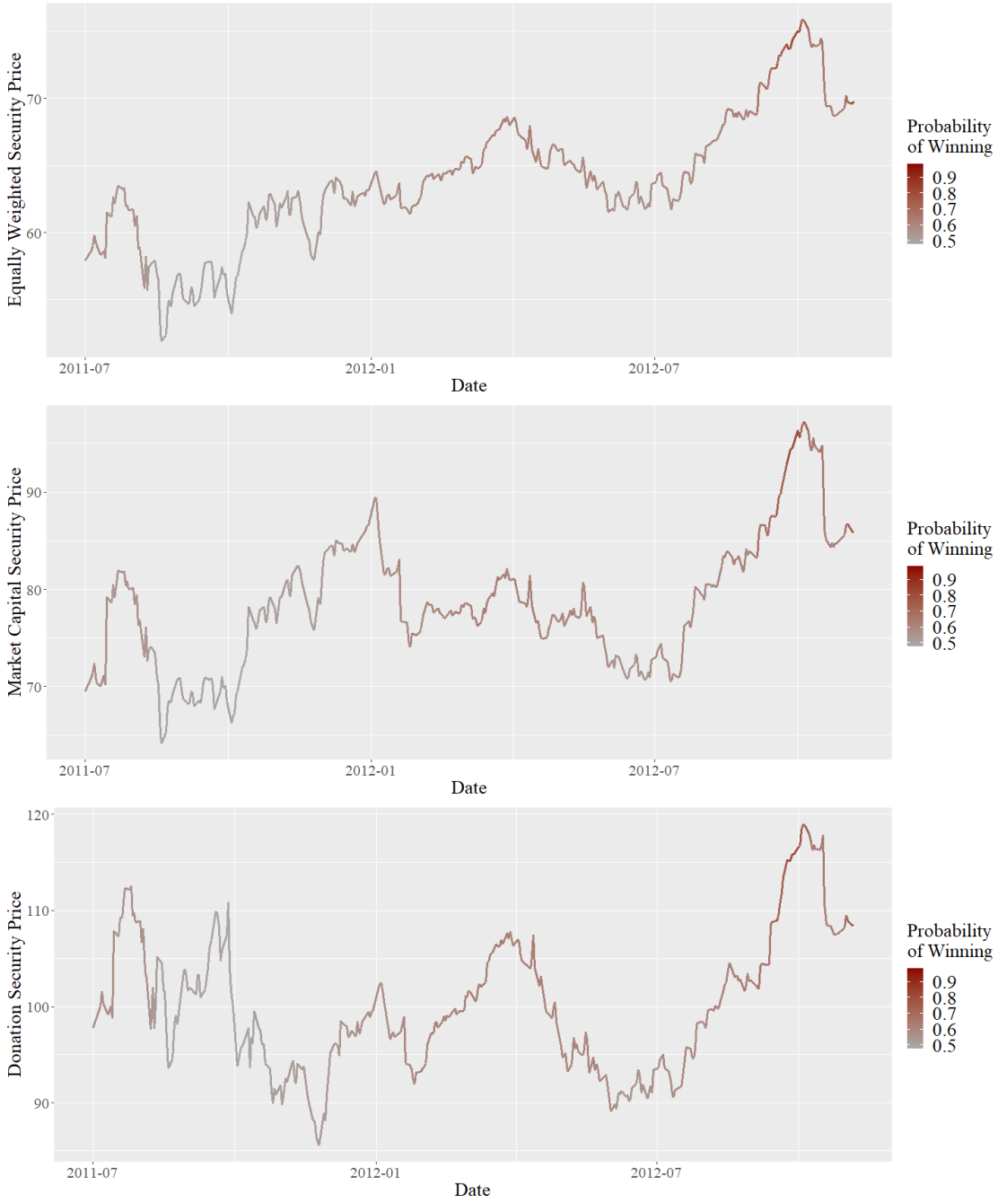

Figure 11. Romney's portfolios by weight type and the probability of winning the election, a time series plot of Romney's portfolios by weight type showing the probability of winning the election in a color gradient. The probability of winning the election ranges from dark grey indicating a low probability to dark red indicating a high probability. The top plot shows Romney's asset equally weighted. The middle plot displays Romney's asset weighted by market capital. The bottom plot presents Romney's asset weighted by individuals' contributions.

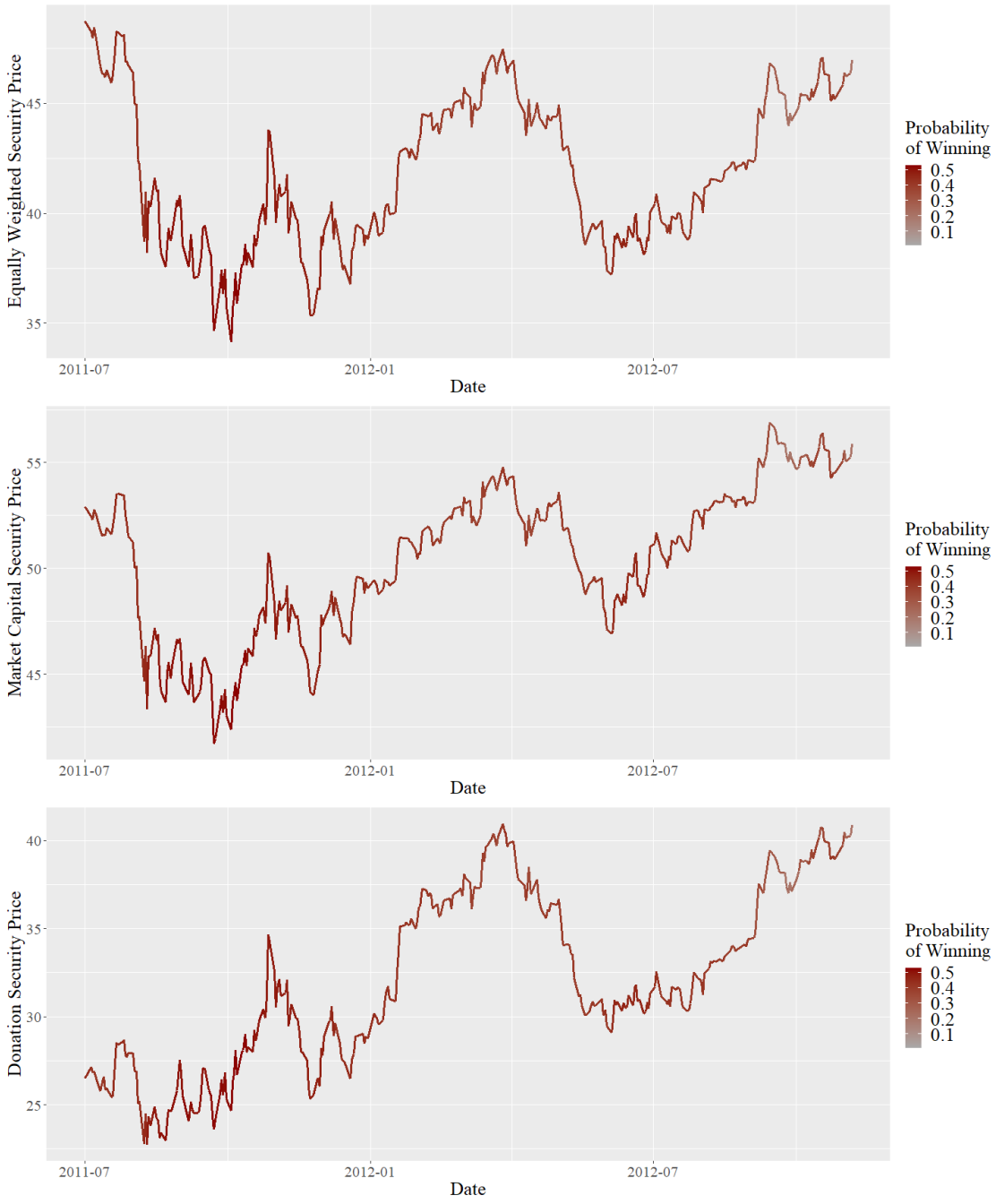

Table 1: Donations Proportional by Companies, the table displays the proportion of individuals' contributions for 2012 presidential candidates. Individuals work for publicly traded companies between 2011-2012. Source: Federal Election Commission

Firms	Romney	Obama
Apple	8%	92%
Credit Suisse	86%	14%
Goldman Sachs	76%	24%
Google	4%	96%
JP Morgan	91%	9%
Exxon Mobil Corporation	84%	16%
Microsoft	18%	82%
Morgan Stanley	76%	24%
Accenture	29%	71%
Cisco Systems	22%	78%
IBM	19%	81%
Oracle	18%	82%
United Airlines	26%	74%
Verizon	29%	71%
Metlife	73%	27%
Blackstone	71%	29%
Deutsche Bank	76%	24%
Hess Corporation	81%	19%
General Motors	23%	77%
Simon Property Group	95%	5%

Table 2: Firms by political party, if the total amount of individual contributions from employees at a publicly-traded company for a presidential candidate meet or exceed two-thirds of that company's contributions, then the company falls into that candidate's portfolio. The table displays the companies in the presidential portfolio that meet the condition between 2011-2012. Source: Federal Election Commission

Romney's Portfolios	Obama's Portfolios
Credit Suisse	Apple
Goldman Sachs	Google
JP Morgan	Microsoft
Exxon Mobil Corporation	Accenture
Morgan Stanley	Cisco Systems
Metlife	IBM
Blackstone	Oracle
Deutsche Bank	United Airlines
Hess Corporation	Verizon
Simon Property Group	General Motors

Table 3. Descriptive statistics, daily descriptive statistics for the dependent and independent variables from July 1, 2011 to November 6, 2012. Obama EW and Romney EW are indices weighted equally. Obama MC and Romney MC are indices weighted by market capital. Obama D and Romney D are indices weighted by donation. DEM and REP are the Iowa Electronic Markets for the 2012 presidential election for democratic and republican parties, respectively. S&P 500 is a proxy to represent the stock market.

	Obama EW	*Obama MC*	*Obama D*	*Romney EW*	*Romney MC*	*Romney D*	*DEM*	*REP*	*S&P 500*
Mean	63.82	78.55	101.11	41.86	50.43	31.55	0.58	0.42	1318.91
Standard Error	0.26	0.36	0.51	0.18	0.19	0.29	0.00	0.00	4.84
Median	63.54	78.11	98.15	41.48	51.14	31.07	0.58	0.42	1336.23
Standard Deviation	4.80	6.57	9.37	3.36	3.46	5.41	0.07	0.07	89.33
Sample Variance	23.02	43.22	87.76	11.29	11.94	29.25	0.00	0.00	7980.00
Kurtosis	0.08	0.31	0.29	(1.10)	(0.70)	(1.01)	4.86	5.42	-0.78
Skewness	0.21	0.55	0.79	0.09	(0.39)	(0.09)	1.44	(1.51)	-0.44
Range	24.02	33.10	47.30	14.62	15.18	20.31	0.51	0.52	366.54
Minimum	51.89	64.15	77.43	34.13	41.71	20.62	0.48	0.01	1099.23
Maximum	75.91	97.25	124.73	48.74	56.90	40.93	0.99	0.53	1465.77
Num. Observations	340.00	340.00	340.00	340.00	340.00	340.00	340.00	340.00	340.00

Table 4: Robust linear model for $(R_{Obama} - RF)$, the table shows the robust linear regression results for Obama's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Obama}	0.059***	0.1082***	0.0728***
	(0.007)	(0.016)	(0.010)
R_{IEM}	0.2169***	0.4239***	0.2367***
	(0.024)	(0.056)	(0.034)
$(R_M - RF)$	0.8456***	0.2444**	0.1808**
	(0.051)	(0.122)	(0.074)
R_{SMB}	-0.7816***	-0.7877***	-1.3971***
	(0.120)	(0.288)	(0.175)
R_{HML}	0.6503***	2.0479***	2.359***
	(0.219)	(0.524)	(0.317)
R_{RMW}	0.5635**	0.8031	-0.4519
	(0.246)	(0.590)	(0.358)
R_{CMA}	-0.6237***	-1.0666***	-1.539***
	(0.147)	(0.353)	(0.214)
R^2	0.883	0.505	0.597
No. Observations	339	339	339

Table 5: Robust linear model for $(R_{Romney} - RF)$, the table shows the robust linear regression results for Romney's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Romney}	-0.0029	-0.0013	0.2689***
	(0.003)	(0.002)	(0.017)
R_{IEM}	-0.0041	-0.0118	-0.1407**
	(0.007)	(0.006)	(0.048)
$(R_M - RF)$	0.8034	0.8947***	2.3328***
	(0.019)	(0.017)	(0.129)
R_{SMB}	0.0514	0.1999***	-3.0478***
	(0.046)	(0.041)	(0.312)
R_{HML}	1.4291	1.1***	-1.2782**
	(0.084)	(0.075)	(0.567)
R_{RMW}	-0.9466	0.351***	-3.3751***
	(0.095)	(0.085)	(0.638)
R_{CMA}	-1.3504	-0.6191***	-1.433***
	(0.057)	(0.050)	(0.381)
R^2	0.974	0.979	0.836
No. Observations	339	339	339

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APPENDICES

APPENDIX A

SUBPERIODS

Appendix A shows the regressions result for three subperiods. The first subperiod is between 07/01/2011 – 12/30/2011. The second subperiod is between 01/03/2012 – 06/04/2012. The third subperiod is between 06/05/2012 – 11/06/2012.

Appendix A Table 1: Robust linear model for ($R_{Obama} - RF$) between 7/1/2011 - 12/30/2011, the table shows the robust linear regression results for Obama's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Obama}	-0.0005	0.0059	0.0664***
	(0.009)	(0.016)	(0.026)
R_{IEM}	0.4806***	0.9929***	-0.2219
	(0.069)	(0.128)	(0.200)
$(R_M - RF)$	1.7043***	2.275***	0.1875
	(0.089)	(0.164)	(0.257)
R_{SMB}	-0.5317**	0.0698	0.7575
	(0.237)	(0.437)	(0.683)
R_{HML}	0.8504***	2.1353***	2.3247***
	(0.235)	(0.432)	(0.677)
R_{RMW}	3.0031***	6.3317***	0.8129
	(0.334)	(0.615)	(0.963)
R_{CMA}	-2.3563***	-3.6668	-1.8111**
	(0.307)	(0.564)	(0.882)
R^2	0.889	0.847	0.280
No. Observations	126	126	126

Appendix A table 2: Robust linear model for ($R_{Romney} - RF$) between 7/1/2011 - 12/30/2011, the table shows the robust linear regression results for Obama's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Romney}	-0.0047	-0.0006	0.0165
	(0.004)	(0.003)	(0.019)
R_{IEM}	0.0103	-0.0458***	-0.0625
	(0.024)	(0.018)	(0.111)
$(R_M - RF)$	0.7383***	1.1233***	3.0622***
	(0.039)	(0.028)	(0.176)
R_{SMB}	0.3374***	-0.0789	-3.2836***
	(0.108)	(0.078)	(0.490)
R_{HML}	1.7411***	1.3897***	0.9472**
	(0.104)	(0.075)	(0.473)
R_{RMW}	-0.6465***	0.7255***	2.3431***
	(0.147)	(0.107)	(0.671)
R_{CMA}	-1.5007***	-0.7021***	-2.2863***
	(0.142)	(0.103)	(0.647)
R^2	0.987	0.987	0.706
No. Observations	126	126	126

Appendix A table 3: Robust linear model for ($R_{Obama} - RF$) between 01/03/2012 – 06/04/2012, the table shows the robust linear regression results for Obama's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Obama}	0.0951***	0.2219***	0.0075
	(0.013)	(0.027)	(0.021)
R_{IEM}	0.058	-0.0057	0.1773**
	(0.054)	(0.113)	(0.085)
$(R_M - RF)$	0.8467***	-0.3371**	0.5957***
	(0.077)	(0.161)	(0.121)
R_{SMB}	-0.195	-0.3882	-0.9676**
	(0.255)	(0.531)	(0.399)
R_{HML}	1.1014***	3.2456***	2.7977***
	(0.378)	(0.786)	(0.591)
R_{RMW}	0.7113	0.3378	1.1385
	(0.460)	(0.957)	(0.720)
R_{CMA}	-0.3154	-1.1108**	-2.4629***
	(0.275)	(0.573)	(0.431)
R^2	0.811	0.461	0.717
No. Observations	106	106	106

Appendix A table 4: Robust linear model for ($R_{Romney} - RF$) between 01/03/2012 – 06/04/2012, the table shows the robust linear regression results for Romney's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Romney}	-0.0696***	-0.0138*	0.4224***
	(0.008)	(0.008)	(0.032)
R_{IEM}	-0.0316	0.0119	-0.0583
	(0.025)	(0.024)	(0.097)
$(R_M - RF)$	1.0636***	0.8103***	2.4526***
	(0.048)	(0.046)	(0.187)
R_{SMB}	-0.1987	-0.1901	-0.4678
	(0.157)	(0.149)	(0.613)
R_{HML}	0.4875**	0.5707***	0.1267
	(0.233)	(0.221)	(0.908)
R_{RMW}	-0.6278**	-0.0056	-1.9547*
	(0.285)	(0.270)	(1.110)
R_{CMA}	-1.5591***	-0.9507***	-3.2451***
	(0.169)	(0.161)	(0.660)
R^2	0.974	0.946	0.936
No. Observations	106	106	106

Appendix A table 5: Robust linear model for ($R_{Obama} - RF$) between 06/05/2012 – 11/06/2012, the table shows the robust linear regression results for Obama's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Obama}	0.1105***	-0.0757	-0.1243**
	(0.045)	(0.071)	(0.056)
R_{IEM}	0.0958***	0.1872***	0.1266***
	(0.022)	(0.034)	(0.027)
$(R_M - RF)$	1.6155***	2.4529***	1.8016***
	(0.133)	(0.210)	(0.166)
R_{SMB}	-1.0965***	-2.6412***	-1.4937***
	(0.197)	(0.313)	(0.247)
R_{HML}	-1.553	-3.411***	-2.1751***
	(0.341)	(0.541)	(0.428)
R_{RMW}	-2.0329	-3.0959***	-2.28***
	(0.466)	(0.739)	(0.584)
R_{CMA}	0.0208	1.6186***	1.6717***
	(0.397)	(0.630)	(0.498)
R^2	0.938	0.914	0.937
No. Observations	107	107	107

Appendix A table 6: Robust linear model for ($R_{Romney} - RF$) between 06/05/2012 – 11/06/2012, the table shows the robust linear regression results for Romney's portfolio using three weighting methods: equally weighted, market capital, and donation. * Statistically significant at 10% level; ** at 5% level; *** at 1% level. Standard errors are in parentheses.

	Equally	Market Capital	Donation
α_{Romney}	-0.0675***	-0.1024***	0.5675***
	(0.017)	(0.018)	(0.041)
R_{IEM}	-0.0143**	-0.0081	-0.0513***
	(0.006)	(0.007)	(0.015)
$(R_M - RF)$	0.7357***	1.1896***	1.0577***
	(0.051)	(0.053)	(0.122)
R_{SMB}	-0.0478	-0.1003	-0.1865
	(0.075)	(0.077)	(0.180)
R_{HML}	1.2495***	0.1959	2.7154***
	(0.130)	(0.134)	(0.313)
R_{RMW}	-0.6543***	0.4009**	-3.0107***
	(0.178)	(0.184)	(0.428)
R_{CMA}	-0.6131***	0.3599**	-1.2307***
	(0.152)	(0.157)	(0.365)
R^2	0.986	0.970	0.985
No. Observations	107	107	107