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Philanthrocapitalists

A research on Chief Executive Officers' stock-donation behaviour

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Preface and Acknowledgement

The process of writing a master thesis was an interesting journey, and the earnings by doing so are for me far more important than any theoretical knowledge acquired by studying books. I would like to thank each and every one that was by my side during my master studies. Special thanks to my parents, my sister and my friends, the people who believe in me the most. And last but not least, special thanks to my supervisor Dr. J.J.G. Lemmen, for the support and feedback he provided, that were an important parameter for me to investigate more in depth the topic of Philanthrocapitalism.

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Abstract

I study stock donation behaviour of CEOs or Chairmen of U.S. publicly traded firms, using a sample of 719 stock gifts that took place from 2005 till 2013. The analysis of these gift transactions and the date that they are announced can lead to conclusions on insider trading and tax avoidance. The Corporate Social Responsibility level of the firm has a profound connection on the decision of the stock-holder to donate. My research provides significant results confirming a reversed relation between firm's Corporate Social Responsibility score, the abnormal returns and the dollar amount of the gift.

Keywords: Stock-gifts, Corporate Social Responsibility, Philanthrocapitalism, Tax incentives, Abnormal returns

JEL Clarification: G14, G34, J31, M12, M14

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1.Introduction

In the last 15 years, world-known billionaires such as Bill Gates, Warren Buffet, George Soros and more recently Mark Zuckerberg, have stimulated the worldwide academic interest and have generated a debate on their practices. They have made their fortunes in the fields of information technology and finance, and their charity work has some of the energy and confidence that made them successful businessmen. Addressing some of the most challenging global issues, their philanthropy schemes are bold attempts to ameliorate the lives of billions of people, giving rise to the term of “philanthrocapitalism” in an effort to characterize them.

In 2006, Warren Buffet donated the amount of \$30 billion (US) to the Bill and Melinda Gates Foundation, the largest worldwide family foundation, and became the world’s largest recorded gift-stock donor (Saul, 2016). According to Matthew Bishop, since the birth of philanthrocapitalism in 2006, there has been “a need for philanthropy to become more like the for-profit capital markets” (Bishop & Green, 2008). Firstly, philanthropists search for something to invest in, something created by social entrepreneurs. Secondly, the philanthropic market demands an infrastructure, similar to these of the stock markets, investment banks, research houses, and management consultant firms. Thirdly, philanthropists themselves need to behave more like investors, and by donating stocks to their own family foundation, on which they have full control, or to other philanthropic foundations, they consider to achieve the greatest possible positive difference to society’s problems.

Initially for this study, I was interested in investigating the charitable behaviour of top executives and billionaires, these so called philanthrocapitalists, and the motives behind their decision to pursue specific charity goals. I believe that it is critical to understand the reasoning of their practices, since they have a considerable influence on the global economy and they are role models that affect the decisions of other wealthy citizens and many more. Additionally, there has been media interest in private philanthropy and the morality behind it, especially for those businessmen mentioned above, whose charity activities plan to reform today’s worldwide economic, political and social scenery, but according to many academics may also try to bypass U.S. taxation.

Prior studies have shown that firms' insiders tend to donate the stock they receive in their compensation, in a timely manner, in order to achieve their own self-interests (Yermack, 2009; Ghosh & Harjoto, 2011). In contrast with the cases of open market sales, the phenomenon of stock-gifting is not subject on the same level to the U.S. trading insider law, and top executives may be taking advantage of existing loopholes to serve their own tax motives (Yermack, 2009).

Unlike previous studies that investigate the cases of stock gifting to gain insight in firm performance, relationships between executives and shareholders and possible changes in the U.S. tax law, I mainly try to establish a trend of super wealthy philanthropists and their stock-gift behaviour. Through that, we can better understand the motives behind charity decisions that have sparked media attention, but also critically determine a solid foundation for upcoming research on the level of corporate social responsibility, the power of philanthropic foundation and the concept of impact investing, topics of extreme interest in the upcoming years.

This paper focuses on the empirical examination of the cases of stock donation made by top executives or chairmen of board of directors for firms established in U.S. My research also accounts for the different ethical levels of the firms in my sample, measured by the MSCI KLD score, for the period between 2005-2013. I will try to identify some self-interest motives and more specifically, tax motives behind this charitable behaviour. I expect to confirm that gifts made by CEOs who earn more than the average, lead a firm with low level of corporate social responsibility and decide to donate during November or December, will result in more negatively abnormal returns and a higher donation value, confirming tax motives. Firstly, by performing an event study I will examine whether the date of donation, firm's level of Corporate Social Responsibility (CSR), top executive's compensation, CEO duality, board size, and industry, can provide an explanation for the market reaction on the gift transaction. I anticipate to find that for firms with low level of corporate governance and sense of social duty, CEOs' stock gifts will have a bigger impact on their market returns.

Furthermore, by conducting a cross sectional regression analysis, I establish that the market returns and the value of the donation are not related by the announcement date of the donation. I find that the compensation level that is earned by the donor, has positive and significant relation with both the abnormal returns of the firm and the value of the transaction. My analysis also

provides significant results confirming a reversed relation between firm's corporate social responsibility score, the abnormal returns and the dollar amount of the gift.

The rest of the paper is organized as follows: In section 2, I provide the related literature and the relevant research that motivated me to investigate deeper for an empirical determination of the philanthrocapitalism concept. In section 3, I develop the hypotheses of my research and present the research methodology with the relevant variable construction. Following, in section 4, I present and discuss the results and in section 5 I present the conclusions, I explain the limitations and suggest further research.

2. Literature Review

2.1 Theoretical and Empirical Framework

2.1.1 Corporate Social Responsibility Levels

Corporate social responsibility cannot be expressed with a single definition, since it combines various dimensions, from internal behaviors and employee's relations, to environmental and philanthropic outputs (Waddock & Graves, 1997; Mahoney & Roberts, 2007; Turker, 2009). Previous literature mentions that CSR can be separated into seven different categories as stated below: corporate governance, environmental relations, community relations, employee relations, human rights, diversity and product (Brammer, Brooks, & Pavelin, 2006; Margolis et al., 2009). In relevance with the stock donation literature, findings suggest that corporate governance characteristics can have a linear effect on the firm's level of corporate responsibility, and top executive's decision to donate is accounted as a self-interest action by the investors (Coffey & Wang 1998; Werbel & Carter 2002; Hemingway & MacLagan 2004; Manner 2010).

2.1.2 Agency and Stakeholder Theory

According to Copeland (2004), the basic purpose of top executives is to serve shareholders' interests, by maximizing their wealth (Copeland et al. 2004).

The agency theory investigates the relation among agents and the principal, when they all base their decision to their personal interests. Friedman in the 1970s saw that there is a potential agency problem when the firm is involved in CSR policies, since there is an increase in corporate spending with no potential profit for the firm. Furthermore, top executives may also take advantage of the corporate social activities of the firm and maximize their spending, which would lead to a loss for the shareholders (Friedman, 1970). Moreover, according to Gosh & Harjoto (2011), top executives' decision to donate signals their self-interests to investors, and might have negative long-term effects on the shareholders' value.

Based on Freeman (1984), in stakeholder theory executives should serve the stakeholders' interests in various levels, and their career and prospect in the firm is highly related to that behaviour (Clarkson, 1995; McWilliams & Siegel, 2001). The difference between these two theories lies on the definition of shareholders and stakeholders. Friedman (1970) states that the firms should maximize the wealth and the value of the shareholders (who own shares in the company). Freeman (1984) declares as stakeholders all the groups that can be affected by the firm as an organization (shareholders, customers, government etc.), and his theory states that primary stakeholders (shareholders, suppliers etc.) are those who are necessary for firm's survival, but both primary and secondary stakeholders' interests must be satisfied. In cases when CSR policies need to be followed, according to the stakeholder theory a conflict of interests might arise, since trying to increase shareholders' value might decrease the value of an opposite stakeholder, and reverse.

2.1.2 Trend on Philanthropy and Foundations in U.S

In general, this research does not focus on investigating the philanthropic trends in the US, but it is necessary to have a basic knowledge on the number of the philanthropic foundations, the assets they hold and the amount they give, and the recipients of these Grantmaking, for the period my research questions are examined.

“Philanthropy” consists of the two Greek words “philos” which means friend-love, and “Anthropos”, which means human. Therefore, the philanthropists are theoretically the ones who love humans, and they are willing to promote human welfare (Lorenzi & Hilton, 2011). Global philanthropy (Plewes, 2008), indicates the growth of philanthropic institutions and individuals, and the increasing trend to give a solution in worldwide issues like poverty and climate change. Few decades ago, philanthropy was mostly considered as an activity conducted by the privileged citizens of our world, but nowadays it is more broadly considered as an action undertaken either from firms or individuals, and combines a transfer of money or an offer of someone's business experience and time (Bishop & Green, 2008).

According to the Council of Foundations, a foundation is “a nonprofit entity that support charitable activities in order to serve the common good”¹. Depending on data gathered from FoundationCenter.org, the number of foundations in 2005 was 71.097 and reached 87.142 in 2013. An increase was observed also in the number of family foundations, from 34.989 to 42.252, seeing that for the period examined, the family foundation is almost 50% of all type of foundations functioning in the US². Additionally, the total dollar amount of the gifts received by family foundations is a little more than 180 billion and by all foundations, the amount almost reaches 384 billion dollars. This information can significantly contribute on the intuition behind the research that Yermack (2009) and I follow, since most of the insiders donate their stock holdings to their own family foundation or to a friend’s foundation.

Moreover, as shown on the figures included in the appendix, I see that there is an increasing trend, observed for both family and total foundations, on the amount of assets they own³, and the received and given amounts⁴. A small abnormality in this increasing trend is observed during 2008 and 2009, the years when the financial crisis begun and developed in a worldwide level. In figure 8, we see the recipient of the grants between 2005 and 2013; 26% of the grants went to educational purposes, 19% into solving health issues and 15% to environmental related problems.

2.2 Philanthrocapitalism and Stock Donation

Philanthrocapitalism as a concept, was initially established by Matthew Bishop and Michael Green, in their book, “Philanthrocapitalism: How the Rich Can Save the World and Why We Should Let Them” (2008). It is the marriage of business and philanthropic mentality, mostly encountered by super wealthy individuals, like Bill Gates, George Soros, Mark Zuckerberg, who have made their fortunes in the IT and Finance industry. According to Plewes (2008), these ultra-philanthropists, apply the business methodology that helped them conquer their financial goals, in their aim to eliminate some of the most important issues that our world faces. These social entrepreneurs have led us into an era where philanthropic foundations are considered important

¹ Council of Foundations (www.cof.org/FAQ/fndfaq.html)

² See Figure 5 on Appendix

³ See Figure 4 on Appendix

⁴ See Figure 6 on Appendix

financial institutions, with an increase in the number of newly established charities and number of donations they receive (Keohane, 2016). Importantly, the social mission of these philanthrocapitalists has affected the choices and behaviour of others, either super rich who decide to pledge their fortunes to charity, world famous artists who use their public image as a vehicle to achieve philanthropic actions, or CEOs who decide to donate part of the stock they receive in their compensation, to philanthropic foundations (Edwards, 2008). A lot of criticism has been raised on how these philanthropic foundations decide to invest their funding, but not on what the main source of their wealth endowment is, the type of donations the foundation has collected, or the self-interest motives behind these donations, which Keohane (2016) argued to be some of the most prominent aspects of the new form of philanthropy.

Furthermore, there is a vast finance literature that has examined cases of insider trading by CEOs selling their stock in the open market, or via mergers and acquisitions financed by stocks, but there is sparse examination of CEOs' personal stock donation and the motives behind this behaviour. According to Benabou and Tirole (2005), there are three incentives behind someone's willingness to donate: the intrinsic motivation, which is based on donors' altruistic feelings and other characteristics of themselves (Ariely, Bracha, & Meier, 2007), the extrinsic motivation, which is perceived as the profits acquired from donating (Benabou & Tirole, 2003), and the image motivation, which is donors' desire to be publicly recognized (Bénabou & Tirole, (2005); Grossman, (2015); Harbaugh, (1998).

The first study that examined CEOs' decision to give their stocks for charity was carried out by Yang-Ho Kim and Man-U Lee⁵, who investigated stock gift transactions that took place in South Korea, from 1993 till 2002. They found that company executives, up until 2000, used to give away their stocks to their own families on specific days that the stock price was at the minimum. In this way, they could achieve the minimum tax rate payable and they used to invalidate the transaction if the price of the stock kept decreasing in the upcoming days.

The second study was conducted by Woon-Oh Jung and Sung Ook Park, again for cases in Korea, from 2000 until 2004, a period when a more restrictive rule was implemented on the valuation of

⁵ Yang Ho Kim & Man-U Lee, "A Study on the Gift Time Management of Listed Stocks" (2003). Because this article is published in Korean, we refer to Jung & Park (2010), for a helpful description of its contents.

the stock gift level of taxation (Jung & Park, 2010). They found evidence that stock gifts were used as a tool to transfer the ownership control that CEOs and other controlling shareholders had on the firm. The donors, aiming for a higher tax benefit, consciously presented bad news to the public to reduce the stock price, and obtained a higher relocation of wealth, due to lower tax scale implemented on their gift value.

In both these cases, the motives behind stock donating differ in comparison to the cases we will see later, which took place in US, because top executives were willing to donate their stock to other family members, only when the price of the stock was at its lowest level, in order to achieve the lowest tax rate that would be assigned to them after the transaction. After 2000, the Korean law stated that the level of the tax that would be implemented on the stock gift value, would be measured according to the price of the stock the day of the transaction, including the average stock market value for a four-month time interval before and after of that date in the calculation. (Jung & Park, 2010)

In the U.S., according to Yermack (2009), the taxation implemented for stock donation is asymmetrically different compared to the Korean law system. In the U.S. tax system⁶, the corporate executive or generally whoever donates, do not have to pay taxes on his stock gift transactions. Conversely, he earns a tax deduction on his taxable income equal to the value of the stock gift multiplied by the marginal personal income tax rate. Moreover, he can use this deduction to cancel out taxes that he has to pay, if for example has sold stock at a premium, thus having a motive to achieve the maximum value of his donation. Additionally, gift stocks are not subject to the insider trading laws that affect the open market sales and executives are not required to deliver a report on their stock gifts transactions with such as strict prohibitions as their stock sales in the open market. (Bettis, Coles, & Lemmon, (2000); (Brody, 1999)

Yermack (2009), examines 151 stock donations made by top executives and chairmen of board of directors of U.S. publicly traded firms, to their own family foundations, for the period between 30th of June 2003, and 31st of December 2005. By conducting an event study, he calculated the

⁶ For highly appreciated stock gifts to charity and foundations, the donor is legible to two advantages. Firstly, any donation of stock that were acquired more than a year ago, and has a present value higher than the initial cost, can have tax deduction equal to its full fair market value and up to 30% of the donor's adjusted gross income. Secondly, there are no capital gains taxes by donating the security to a nonprofit organization (<https://www.irs.gov/publications/p526/ar02.html>).

cumulative abnormal returns (CAR) in 8 different ways, over a 20-day period after the reported day to the Securities and Exchange Commission (SEC). He discovered that the value of the stock that is measured by its price on the filling day is on the highest level. Also, there is an “excellent timing” and an observed decrease in the price of the stock after the gift transaction, especially for these gifts that are considered higher in terms of value.

Furthermore, he found evidence supporting that CEOs take into consideration earning releases before choosing the day of the stock gift announcement, indicating access to insider information. Also, taking into account backdating and timing data of stock donations, especially taking place in December, he noticed their alignment with some charity grants being donated before the end of the year, when the tax liability is known to the taxpayers. Additionally, CEOs that make stock donations to their own family foundations, have the tendency to be older and to earn more than the average CEO, giving us the necessary reasoning to investigate the effect of donating in December, combined with CEOs’ compensation, on the value of donation.

In his paper, Yermack (2009) presents three main conclusion points. Firstly, top firm executives, by timing or backdating the reported day of the transaction, which is a possible violation of IRS regulations, achieve a higher tax deduction. Secondly, their family foundations are used as a tax deduction vehicle and philanthropy is not their first priority. Notably, most of the foundations in the sample examined do not meet the prudent investor rule, where the assets held in a foundation’s portfolio should diversify by 5% each year (Sitkoff & Schanzenbach, 2016). Thirdly, and most importantly, the motives behind the decision of these CEOs to donate their stock, are not only based on a charitable way of thinking, but also on an aggressive planning to avoid taxes.

Further studies on the phenomenon of stock donation by top executives, confirms the tax benefit reasons behind the timing of the stock gift. Johnson & Moorman (2005) support the findings that self-interest motives lie behind CEOs’ decision to donate their stocks and that insiders use the private information that is provided to them, to time effectively their gift. After testing stock donations made both by insiders and outsider stakeholders, they identified more negative cumulative abnormal returns for the first case, showing evidence of private information manipulation. Avci et al. (2016), conducting a study on 200,000 gifts for almost 4 decades (1986-2014), detected a timing behaviour behind the U.S. stock gifts in this period and analyzed further the financial and tax policy recommendations that could be implemented based on their findings.

Auten et al. (2002) and Randolph (1995), note that the level of taxation is important on the charitable stock behaviour.

Gosh and Harjoto (2011) examine the cases of CEOs and chairmen of board of directors of U.S. firms timing their stock donations, for the period between 1993 until 2005 incorporating the aspect of corporate social responsibility. They calculated market adjusted abnormal stock returns for numerous time intervals, by using the Eventus program and in agreement with Yermack's theories, they found a strategically timing of the gifts made by top executives, in order to claim a higher tax benefit. Moreover, in relevance with the principal-agent problem, where top executives act on their own interests (Jensen & Meckling, 1976)⁷, they discovered that stock gifts have severe consequences on firm's financial and equity performance, thus diminishing stakeholders' value, compared to opposite results where firms have top executives who do not donate their stock. In the aspect of corporate social responsibility, they discovered a negative relationship between firm's level of social responsibility and incidents of stock donation, measured by the value of the donation (VDONATE) and the percentage of the stock donated (PCTDONATE). This finding is justified, either because top executives are more aligned with firm's social policies and do not try to take advantage of stock price movements for their own benefit, or because top executives try to fill the gap in the social responsibility level of the firm they lead, by donating their own stock.

The corporate social responsibility findings are connected with the level and effectiveness of corporate governance, the value creation and the financial performance of the firm, which is an additional mechanism to develop a better relationship with shareholders (Michelon & Parbonetti, 2012). Some studies on firm's performance and CSR show an indirect implication of the charitable contribution on the complicate connection of governance characteristics and agency theory. Muller and Kolk (2010) mention that the size of the board of directors can have an implied impact on the company's level of CSR, where boards with more members usually have more independent directors, hence there is more control on the CEOs' decision that could affect firm's performance. On the aspect of CEO duality, which suggests that the Chief Executive Officer has simultaneously

⁷ According to Jensen & Meckling, (1976): "Principal-agent problems refers to situations where the agent acts to maximize their own preferences and not those of the principal. In general, agents do not make the same choices as would the principal. In the current context, when executives donate stock, they look to maximize their personal benefit instead of those of their shareholders".

the role of the chairman of the board of directors, agency theory supporters, believe that these two positions have to be appointed to people that clearly do not hold the same interests (Higgs, 2003). Concluding, according to Daily (2002) and Messier (2003), boards with CEO duality are becoming inefficient when a CEO is becoming more powerful and able to implement some policies that are based on his own opportunistic incentives.

3. Methodology and Data Description

In this section, I develop the hypotheses, I provide the research methodology and a description of the data, and I construct the variables used in the paper. In the hypothesis development section, I will clearly state my rationale behind the theoretical connection between Philanthrocapitalism and stock donation motives. In the methodology and data section, I will elaborate on the data sources that were used, and the model and variables construction framework of my research.

3.1 Hypothesis Development

In the literature review section, I provided an overview of how the relation between firm's abnormal returns, level of corporate social responsibility, and CEOs stock donation can provide an explanation on the motives behind charitable contribution of top executives and in extension to philanthrocapitalists' behaviour.

Based on Yermack's (2009) findings, I expect that top executives or chairmen of the board of directors will decide to give away their stock as a gift to their own or other philanthropic foundations, during November and December. This is the period of the year when the tax obligation is becoming known to the potential stock donors, thus stock-gift behaviour during these months creates a more negative impact on the abnormal returns of the firm. In order to establish if there is indeed a tax motive behind this scenario, I form the following hypothesis:

H1a: Top executives who decide to announce their stock donation during November or December, reflect higher cumulative abnormal stock returns for the firm.

The null version of this hypothesis, expects that cumulative abnormal returns are not related to the top executive's announcement date decision of their stock donation.

Based on Yermack's (2009) findings, in order to understand if the announcement date reflects donors' incentives for higher tax deduction, and how this is expressed in the value of the gift, I form the following hypothesis:

H1b: Top executives who decide to announce their stock donation during November or December, reflect a higher gift value.

The null version of this hypothesis, expects that the amount donated is not related to the top executive's decision of when to announce their stock donation.

CEOs' compensation besides being a sign of wealth, is also a significant connection between the high-net-worth individuals that are members of the philanthrocapitalists' club and those who are considered as average CEOs in terms of income (Yermack, 2009). To investigate in stock donation cases, how CEOs earnings would affect market's reaction, I form the following hypothesis:

H2a: CEOs' compensation level reflects higher cumulative abnormal stock returns for the firm.

The null version of this hypothesis expects that the firm's cumulative abnormal stock returns, are not related to top executive's earnings.

According to previous literature (Gosh & Harjoto, 2011), the CEOs who earn more, are those who make higher in terms of value stock gifts. To establish if a tax motive exists behind this connection, I form the following hypothesis:

H2b: CEOs' compensation level has a positive relation with the value of the stock-gift.

The null version of this hypothesis expects that the amount donated, is not related to top executive's financial situation.

Firm's CSR level, according to Gosh and Harjoto (2011), affects executive's decision to donate and their donation is considered as an act to serve self-interests and tax deduction goals, thus affecting stockholders' wealth. On the contrary, Donaldson & Preston (1995) state that by donating their stock, CEOs reflect their personal moral motives and sometimes their willingness to compensate society for their firm's absence of social intervention, thus originating positive stock returns for the shareholders. To see how the firm's CSR policy can explain self-interest or ethical motives, I form the following hypothesis:

H3a: Corporate Social Responsibility level of the firm is inversely related to cumulative abnormal stock returns of the firm.

The null version of this hypothesis expects that the firm's stock returns, are not related to firm's CSR activity.

Evidence from Gosh & Harjoto's (2011) research, shows that is important to see how and if top executives incorporate their interests to the CSR policies of their firm. The value of personal stock gifts is a way to establish CEO's engagement to firm's policy, and thus I form the following hypothesis:

H3b: Corporate Social Responsibility level of the firm is inversely related to the value of CEO's stock donation.

The null version of this hypothesis expects that the amount donated, is not related to firm's CSR activity.

3.2 Research Methodology

To investigate the motives behind the charitable behaviour of high-net worth individuals, that are addressed in all 3 hypotheses, I firstly need to conduct an event study, which will be followed by a cross sectional regression analysis to explain the determinants of any abnormal returns due to stock gifts by CEOs. To calculate the cumulative abnormal returns around the days that top executives donated their personally owned firm stocks, I use the Eventus© program, offered from the WRDS database and based on Brown and Warner (1985) event study.

Following Brown and Warner (1985), I use the model mentioned below to estimate the abnormal returns:

$$A_{i,t} = R_{i,t} - (a_i - \beta_i * Rm_t)$$

$A_{i,t}$: Abnormal return for the referred firm's stock i on day t .

$R_{i,t}$: Return of i firm's stock on day t .

Rm_t : Return for the CRSP equally weighted market index on day t .

a, β : Market-model parameters.

As per Yermack's (2009) and Gosh & Harjoto (2011), I calculate CARs over a 252-day estimation period, for three different event window time intervals: 5 days prior, 5 and 20 days after the stock-gift report date to the Security and Exchange Commission.

A limitation of this study is that there is an overlap between estimation periods and event periods, since the CEO or the Chairman can do multiple donations in the same day, month or year, and this overlap can result in a bias when calculating the cumulative abnormal returns. Yermack (2009), in his one-and-a-half-year sample, uses only one observation per company-day. Following his methodology, I use one observation per company-year, choosing the highest gift value transaction in cases when in my final sample more than one gifts made by the same donor in the same year. I used this value criterion, since my research is trying to establish a connection between the value of the gift and the independent variables explained in the previous section.

After collecting the CARs, I implement an ordinary least square regression methodology on the two samples that I constructed based on the CSR level of the firm⁸, to establish a connection between firm's cumulative abnormal returns for five days following the announcement of the donation (CAR +1, +5) and the value of donation made by the top executive, the independent variables related to the characteristics of the stock-gift, the social characteristics of the firm and the CEO's characteristics.

The control variables that are included in the regression are relevant to board and firm's characteristics, thus controlling for the corporate governance mechanisms of the firm. The regression models used for either positive or negative CSR scenarios, are formulated as below.

Model 1:

$$CAR_{(+1,+5)_{i,t}} = \alpha + \beta_1 * MONTHEF + \beta_2 * SCORE_{i,t} + \beta_3 * SAL_{i,t} + \sum \beta_t * CONTVAR + \varepsilon_{i,t}$$

Model 2:

$$VGDONATED_{i,t} = \alpha + \beta_1 * MONTHEF + \beta_2 * SCORE_{i,t} + \beta_3 * SAL_{i,t} + \sum \beta_t * CONTVAR + \varepsilon_{i,t}$$

⁸ See Chapter 3.4 Sample Description.

Where:

a	= intercept
$CAR_{(+1,+5)}$	= Cumulative abnormal return 5 days subsequent to the stock donation announcement date
$VGDONATED$	= Value of the donated gift
$MONTHEF$	= November-December gift indicator
$SCORE$	= Corporate social responsibility level of the firm
SAL	= Donors compensation level
$CONTVAR$	= Control variables: CEO duality, Size of board of directors, Industry
ε	= Residual
i	= Firm
t	= Time of announcement

To investigate if my results are having a high level of validity, I re-estimate the models above for different dependent variables. For the 1st model, I regress the CAR for an event window that covers 20-days after the donation is reported to the SEC ($CAR_{+1, +20}$), since the negative abnormal returns still increase for this trading period. For the 2nd model, I regress the percentile amount of shares donated compared to the cumulative number of shares donated on the year that the transaction took place, since the value of the stocks donated might be subsequently affected by the overall stock market movement, due to events like the financial crisis or a natural disaster.

3.3 Variable Construction

3.3.1 Dependent Variables

Cumulative Abnormal Returns

To explain company's share abnormal movement following the event of option donation by the CEO or the chairman of board of directors, I use the cumulative abnormal return of the firm's stock as a dependent variable, initially for 5-days ($CAR_{+1, +5}$) subsequent to the announcement

date, and further as robustness check for 20-days ($CAR_{+1, +20}$) after the announcement date of the transaction. My decision to use this variable is based on Yermack's (2009) and Gosh & Harjoto (2011) research methodology and findings.

The measure of CARs, is considered a forward looking methodology of firm's potential cash flow. As mentioned in my research methodology, I estimate, by performing a short term event study, equally market weighted CARs using the CRSP equal-weighted index over a 252-day estimation period, for three different event window time intervals: 5 days prior, 5 and 20 days after the stock-gift report date to the SEC.

Yermack (2009) regresses using CARs following 20 days after the stock-gift date as a dependent variable, with three different calculation methods. His main dependent variable, is calculated using the CRSP equal weighted returns. Additionally, market adjusted returns and unadjusted raw stock returns are calculated as dependent variables in his research to highlight his backdating results that are mentioned in the literature review section.

Gosh & Harjoto (2011) investigate the short-term and long-term returns to the stockholders and provide evidence that a higher level of firm's corporate responsibility, adds a higher value level to the shareholders, increasing their returns.

Here, I include the level of corporate social responsibility, thus I use CARs for a 5-day event window ($CAR_{+1, +5}$) as my dependent variable, as per Gosh and Harjoto (2011). However, its calculation should be based on the equally market weighted model rather than the value weighted model, to avoid a potential bias in my results due to large differences in the market capitalization of the various firms included in the sample. Moreover, my main point is focused on the donation itself and I try to avoid any correlation with the value of the firm.

Value of the Stock-Gift

In accordance with Gosh & Harjoto (2011) and Yermack (2009), I use the natural logarithm of the total dollar value of the stocks donated by the top executive as a dependent variable⁹, since it assists to normalize the variable into the model. This is equal to the natural log of total number of

⁹ Yermack (2009) stated in his research that using the natural logarithm of the variable assists in the normalization of this variable into the model, and transforms a positive skewed distribution into a normal one.

shares multiplied by firm's stock closing market price at the day the donation was announced. In addition, Gosh & Harjoto find evidence that firms whose policies are concerned as more socially responsible, present a smaller value amount of the stocks donated, compared to firms that are considered as socially absent. The intuition behind my motive to regress the log transformation value of the gifts (VGDONATED) to the independent variables constructed below, is based on the fact that besides proving an existing connection with the CSR level, I expect to find evidence of correlation with the level of executives' compensation, and the date that the gift was filed to the SEC.

The expectation is to establish a significant and positive relationship between the November and December indicator, mentioned in the literature and constructed below, and the level of compensation, but also a significant and negative relationship with the level of corporate responsibility. These findings will be the foundation in my effort to originate a conclusion on the CEOs motives, underlying their decision to donate.

3.3.2 Independent Variables

November-December Gift Indicator

As previously mentioned, top executives have the tendency to donate the corporate options they acquire with their compensation, in a different time pattern throughout the year (Yermack, 2009; Gosh & Harjoto, 2011; Avci, Schipani, & Seyhun, 2016). More specifically, Yermack (2009) in his results, discloses that CEOs' stock-gifts cluster at the final months of the year, notably during December.

Gosh & Harjoto (2011) support Yermack's findings. They discover that gifts made at the beginning of the year, have a positive market reaction compared to the extreme negative stock returns occurring for those gifts taking place in the last quarter of the year. Both studies declare that this clustering event appears because the annual tax liability becomes known to the corporate insiders during December, and their reaction to donate their stock, is considered by the market as a way to increase their tax deduction, and act on behalf of their self-interests, instead of firm's interests.

The impact of a gift being declared on November or December on the CARs and Value of the donation, is measured by constructing a dummy variable that equals 1, if firm's top executive or chairman of board of directors, donated his stock and reported it to SEC during November-December.

Firm's Corporate Social Responsibility level

The usage of CSR level in my research, is based on the intuition that directors who want to make a difference in the world, try to use as a vehicle the firm they lead, by implementing more social responsible policies. By determining a relationship among the firm's stock returns, the value of the shares donated, and the CSR level, there could be a clearer interpretation of the motives behind CEOs' decision to donate. Furthermore, it could be interesting to establish a relationship between top executives' behaviour and the impact investing strategies that their firm follows.

According to Gosh & Harjoto (2011), in firms with a higher level of corporate responsibility there are less cases of stock donation compared to firms with low CSR score, and executives do not act on their own interests by causing negative returns to the stakeholders. To measure firm's level of social responsibility, they create two variables that present the social strengths and concerns for every firm, combining seven distinctive criteria, relevant to environmental, human rights, employee, governance and other categories, presented in the Kinder Lydenberg and Domini Stats database, provided by WRDS.

Numerous databases provide indices relevant to firm's level of CSR. I mainly focus to construct our variable based on the MSCI KLD index, since it contains multiple social criteria, and presents higher level of transparency. (Kempf & Osthoff, 2007). Based on previous research, to create the net MSCI KLD score, I aggregate the concerns record and subtract it from the total amount of strengths. Thus I will be able to determine a comprehensive score for the corporate social responsibility for each firm in which I investigate the phenomenon of stock donation (Chatterji et al., 2009; Griffin & Mahon, 1997; Ruf, Muralidhar, & Paul, 1998; Waddock & Graves, 1997).

Compensation Level

Prior literature indicates that top executives' compensation tends to affect their decisions and the portion of stock in the compensation is a factor that leads to alignment of motives between CEOs and stakeholders. According to Yermack (2009), CEOs that donate their stocks to their own family

foundations, tend to be older but also they earn more than the average, on the sample examined. Subsequently and as mentioned in the hypotheses development section, I consider interesting to investigate how donors' total earnings affect their decision to give their stocks for charity instead of selling them to the open market, and the further connection with firm's stock market returns following the reported date of the transaction.

To measure the annual level of CEO's total compensation, for the year that the stock donation took place, I construct a variable named *SAL* (salary)¹⁰, that equals with the natural logarithm of the compensation data¹¹ gathered for each CEO or chairman of board of directors for each year.

3.3.3 Control Variables

CEO Duality

According to prior studies, CEO duality can lead for the top executive to obtain more power and to be able to act on his own interest, thus affecting firm's performance (Daily, 2002; Messier, 2003). I consider interesting to assess the impact of the CEO being simultaneously chairman of the board of directors since it is in line with my incentive to investigate the motives behind CEOs' decision to donate their stock. Furthermore, including in my regression the CEO duality aspect, can further lead to a stronger verification of Gosh & Harjoto (2011) findings, on the level of CSR, the abnormal returns for the firm and the firm's board effectiveness. To measure if the board leadership is also held by the CEO, I construct a dummy variable that equals 1, if the firm employs the same person for the CEO and Chairman of the board of directors' positions, and 0 otherwise.

Board Size

According to Yermack (1996), a high-numbered board of directors can lead to negative returns for the firm in terms of value. Prior studies relevant to the level of corporate responsibility, found evidence that the size of the board has an effect, although not directly on the firm's level of CSR (Muller and Kolk, 2010).

¹⁰ CEO compensation: cash, restricted stock, options, and other compensation.

Other compensation consists of long-term incentive compensation (LTIP), retirement compensation, and other perquisites that they receive from their company.

¹¹ See Yermack's *supra* note 9.

To assess for the number of the directors in the board and its effect on the CSR level, the firm's market returns and value of donation, I create a variable that calculates the overall number of directors, for each firm, and for each year within the time range of my research.

Industry indicator

As mentioned in the literature review section, most of the philanthrocapitalists that have made profound donations during their careers, are or were successful CEOs and served as top executives or chairman of the board for firms that operate in the Finance or Informatics industry (Bishop and Green in their book 'Philanthrocapitalism: How the Rich Can Save the World', 2008). Additionally, prior literature suggests that firm's industry is affecting the level of CSR, and thus it is used as a control variable for relevant research topics (Branco & Rodrigues, 2008; Newson & Deegan, 2002). To control for the industry effect, I compute a dummy variable that controls if the SIC code of each firm, equals either the SIC code for IT or Finance industry.

3.4 Sample Description

To investigate about insiders' charitable stock gifts, I collect relevant data from numerous databases and match them accordingly to the research hypotheses and the variables that are constructed. I gather all the stock transactions that are mentioned as gifts and have as an indicator the code G, made by donors whose professional title is referred as either Chief Executive Officer, or Chairman of the Board (rolecode=CEO/CB). This transaction sample is retrieved from the Thomson Financial Insider trading database (TFN), provided by the Wharton Research Data Services (WRDS), and does reconcile with insiders' Form 4 and Form 5 filings that are reported to the U.S. Securities and Exchange Commission (SEC). I retrieve all the gift transaction for U.S. publicly traded firms, from January of 2005 until December of 2015, and I exclude all records mentioned by TFN as problematic, because of missing data (Cleansing equals to code A or S).

Firm's abnormal returns are constructed through the Eventus© program, that is offered by the Wharton Research Data Services (WRDS). The necessary closing stock prices for each firm examined, for the day that the gift transaction is reported to the SEC, is retrieved by CRSP. I exclude observations for which I have no valid stock prices. The VGDONATED, is calculated as

mentioned in the variable construction section, with information gathered from the TFN Insider Filing Data for the number of shares donated, and the closing stock price, retrieved from CRSP.

To measure the level of corporate social responsibility of the firm, I retrieve all the necessary data to construct my variable as mentioned above, from the Kinder Lyndenberg and Domini (KLD) Stats database from Wharton Research Data Services (WRDS). For information related to top executives, as for example CEOs annual total compensation, and executives' names, I extract data from ExecuComp database that is provided by Standard & Poors. The necessary information to measure the board size, check for the CEO duality and the firm's Industry and construct my control variables, are gathered from ISS, GMI, and Compustat respectively.

The initial sample from Thomson Reuters Insider Filing database, includes 21513 gift transactions, that took place in the period from 2005 until 2015. After merging my sample with the available closing stock prices gathered from CRSP, 11238 observations remained. To implement in my research, the MSCI KLD score for the CSR level for each firm in my sample, the sample decreased almost by half on 6216 observations, since there were no available data on CSR score for after 2013. This lack of data for the last two years of my time range, is also confirmed by lack of data provided by FoundationCenter.com, for constructing the trend on philanthropy and philanthropic foundations in the U.S. Next, I included data for the CEO duality and the size of the board of directors from WRDS and ISS, and my sample reached the level of 4314 gifts. After attaching the compensation level data for top executives and chairman of board of directors, gathered from ExecuComp, my sample decreased on 866 observations. In this sample I further added the abnormal returns for the event windows that are mentioned earlier, I drop duplicates or gifts being reported multiple times in the same estimation window, and excluded the cases when the CSR score equals zero, since one of the purposes of this research as stated in the hypotheses development section, is to account for the influence of CSR level on the top executives' decision to donate.

My last step was to divide my final sample of 719 observations, in two subsequent samples where the CSR score is either below or above zero, having 433 and 266 gift transaction respectively. My decision to split my sample and run the analysis according to the CSR score is based on the sample structure of Gosh & Harjoto (2011), who investigated subsamples of stock donation for firms with

high level of corporate social responsibility and for firms with high level of corporate social concern.

3.5 Descriptive Statistics

Table 1 displays the sample characteristics and Table 2 describes the descriptive statistics of all the variables employed in the regression models, as explained in the research methodology section. I present the descriptive statistics for the total final sample and the subsamples, that are created based on the score of Corporate Social Responsibility.

Table 1. Sample Characteristics of Common Stock donated by Top Executives or Chairman of the Board of Directors of U.S. publicly traded firms, from 2005 until 2013.

	CSR<0	CSR>0	All scores
<i>Number of firms</i>	94	75	152
<i>Number of Gifts</i>	433	286	719
<i>Average Age of the donor</i>	64.4	64.3	64.4
<i>CEO Duality</i>	133	137	270
<i>Industry Effect</i>	8	5	13
<i>Month Effect (November/December)</i>	108	97	205
<i>Average Stock Price</i>	\$40.57	\$53.81	\$45.83
<i>Average Size of the Gift (in number of shares)</i>	51,148.00	29,863.00	42,682
<i>Average Size of the Gift (in dollar amount)</i>	\$1,688,535	\$1,392,118	\$1,570,628
<i>Total number of shares donated</i>	22,147,237	8,540,869	30,688,106
<i>Total value of the gift (in dollar amount)</i>	\$731,135,618	\$398,145,735	\$1,129,281,352

The studied subsamples consist in total of 719 gift transactions performed by CEOs or Chairman of the board of directors of 152 different firms and the cases when the level of corporate responsibility was below zero, outnumber those when it was above zero. The average age of the donor is 64 and in 270 out of 719 cases the CEO was simultaneously Chairman of the board. In 205 observations the announcement date was made during November or December and in 13 cases the stocks donated were published by a firm that its main business is either in Finance or IT sector. These 13 cases out of my 719 total sample, shows that the Industry effect might not be that significant, however I believe that as a control variable in my regression might be significant to measure and thus is included. The average size of the gift is 42.682 shares, the average dollar value is 1.6 million and the aggregate value of the gifts for my whole sample is 1.1 billions of dollars.

According to Table 2 presented below, the average CAR following 5 days after the announcement of the gift is -0.1704% for the whole sample and overall support the findings of Yermack (2009) and Gosh & Harjoto (2011) of the impact to the firm's stock returns after the reporting day of the gift to the SEC. When CSR score is negative, the mean CAR is -0.3417% whereas when CSR is positive the abnormal returns are on average equal to 0.0889%, seeing that the market reacts in a positive way, when top executives of firms that are considered to have a high level of morality, donate their stock. The value of the gift (VGDONATED), as my second dependent variable, presents on average the amount of \$1,570,628 for the full sample, a \$1,688,535 and a \$1,392,118 for CSR below and above zero respectively.

Table 2: Descriptive Statistics

Total						
DEPENDENT VARIABLES						
	MEAN	MEDIAN	MIN	MAX	N	Probability
<i>CAR (+1, +5)</i>	-0.1704%	-0.1480%	-0.2971	0.1470	719	0.0000
<i>VGDONATED</i>	\$1,570,628	\$360,000	\$6,320	\$148,000,000	719	0.0000
INDEPENDENT VARIABLES						
<i>MEFFECT</i>	0.2851	0.0000	0	1	719	0.0000
<i>SCORE</i>	0.1766	-1	-8	16	719	0.0000
<i>SAL</i>	\$6,819,409	\$4,213,880	\$33,273	\$40,199,085	719	0.0000
CONTROL VARIABLES						
<i>CEOD</i>	0.3755	0	0	1	719	0.0000
<i>BOARDSIZE</i>	10.3018	10	5	20	719	0.0000
<i>INDUSTRYEF</i>	0.0181	0	0	1	719	0.0000

Table 2 continued

CSR Score<0						
DEPENDENT VARIABLES						
	MEAN	MEDIAN	MIN	MAX	N	Probability
<i>CAR (+1, +5)</i>	-0.3417%	-0.2520%	-0.2971	0.1470	433	0.0000
<i>VGDONATED</i>	\$1,688,535	\$262,845	\$6,320	\$148,000,000	433	0.0000
INDEPENDENT VARIABLES						
<i>MEFFECT</i>	0.2494	0.0000	0	1	433	0.0000
<i>SCORE</i>	-2.2564	-2	-8	-1	433	0.0000
<i>SAL</i>	\$5,103,923	\$3,336,130	\$33,273	\$40,199,085	433	0.0000
CONTROL VARIABLES						
<i>CEOD</i>	0.3072	0	0	1	433	0.0000
<i>BOARDSIZE</i>	9.2933	9	5	15	433	0.0000
<i>INDUSTRYEF</i>	0.0185	0	0	1	433	0.0000
CSR Score>0						
DEPENDENT VARIABLES						
	MEAN	MEDIAN	MIN	MAX	N	Probability
<i>CAR (+1, +5)</i>	0.0889%	-0.0020%	-0.0760	0.0969	286	0.0117
<i>VGDONATED</i>	\$1,392,118	\$511,197	\$21,493	\$16,400,000	286	0.0000
INDEPENDENT VARIABLES						
<i>MEFFECT</i>	0.3392	0.0000	0	1	286	0.0000
<i>SCORE</i>	3.8601	3	1	16	286	0.0000
<i>SAL</i>	\$9,416,629	\$7,437,001	\$58,748	\$37,103,208	286	0.0000
CONTROL VARIABLES						
<i>CEOD</i>	0.4790	0	0	1	286	0.0000
<i>BOARDSIZE</i>	11.8287	12	5	20	286	0.0000
<i>INDUSTRYEF</i>	0.0175	0	0	1	286	0.0000

Variables Description

<i>CAR15</i>	Cumulative abnormal return 5 days subsequent to the stock donation announcement date
<i>VGDONATED</i>	Value of the donated gift
<i>MONTHEF</i>	November-December gift indicator, gifts announced on the last two months of the year
<i>SCORE</i>	Corporate social responsibility level of the firm
<i>SAL</i>	Donors compensation level
<i>CEOD</i>	CEO duality
<i>BOARDSIZE</i>	Size of board of directors
<i>INDUSTRYEF</i>	If the firm that the donor is CEO or Chairman, is in IT or Financial Services Sector

As per my independent variables, the gifts with a reported transaction date on November or December, appear on a range of 25% to 34% of the cases, therefore the month can be argued to be

a sizeable factor on the decision of the donor to report the transaction. Furthermore, the corporate social responsibility score in the whole sample has a minimum of -8 and a maximum of 16, and in the cases when it is on negative territory the average is -2.2564, whereas in the positive side, the average is 3.8601. Moreover, top executives or chairmen in social irresponsible firms appear to earn less on average than those that lead the social responsible ones. More specifically, the average compensation for the sample below zero is \$5.103.923 whereas for the cases above zero, the average is \$9.416.629. For the whole sample of 719 gifts, the amount of the compensation ranges from \$33.273 to \$40.199.085.

The descriptive statistics for my control variables show that in a total of 38% of the sample, the CEO holds also the position of the Chairman of the board. This duality phenomenon is more frequent when the firm is considered more social responsible, with the average of 48% of the sample, compared to the cases when the firm is high socially irresponsible, with an average of 31% of the sample. Board size consists on average of 11 members in firms with high CSR level and 9 members in firms with low CSR level, noticing the importance of board size on implementing appropriate corporate governance policies. As per the industry effect, I found that on average only almost 2% of the whole sample appear to have stocks donated from executives' of firms operating in IT or Financial Service industry.

4. Results

In this chapter, I present and discuss the outcome of the four regressions performed. Using firm's cumulative abnormal returns and the value of donation made by top executives as two separate variable, I try to establish their potential trend to the characteristics of the stock-gift, the social characteristics of the firm and the CEO's characteristics.

First, Table 3 presents the Pearson's correlation coefficients among the independent and control variables that were used later on in the cross sectional regression analysis. The main reasoning behind implementing the correlation test on both my samples, is to investigate whether there are any multicollinearity problems that could lead on misleading results and unreliable conclusions after running my regression models. I use the Pearson's correlation coefficients, since it is the most suitable to account for the correlation in cases of linear relationship between the variables (Verbeek, 2008).

Table 3. Pearson's Correlation Test Results

Correlation Matrix CSR<0						
Variables	<i>MONTHEF</i>	<i>SCORE</i>	<i>SAL</i>	<i>CEOD</i>	<i>BOARDSIZE</i>	<i>INDUSTRYEF</i>
<i>MONTHEF</i>	1.000					
<i>SCORE</i>	-0.0331	1.0000				
<i>SAL</i>	0.0686	-0.1467***	1.0000			
<i>CEOD</i>	0.1484***	-0.0146	-0.1340***	1.0000		
<i>BOARDSIZE</i>	-0.1886***	-0.1285***	0.1866***	-0.1711***	1.0000	
<i>INDUSTRYEF</i>	0.1191**	0.0774	0.0223	-0.0914*	-0.0620	1.0000

CSR<0 score below zero

CSR>0 score above zero

Significant at 1% (***), 5% (**), 10% (*) levels

<i>CAR15</i>	Cumulative abnormal return 5 days subsequent to the stock donation announcement date
<i>VGDONATED</i>	Value of the donated gift
<i>MONTHEF</i>	November-December gift indicator, gifts announced on the last two months of the year
<i>SCORE</i>	Corporate social responsibility level of the firm
<i>SAL</i>	Donors compensation level
<i>CEOD</i>	CEO duality
<i>BOARDSIZE</i>	Size of board of directors
<i>INDUSTRYEF</i>	If the firm that the donor is CEO or Chairman, is in IT or Financial Services Sector

Table 3 continued

Correlation Matrix CSR>0						
Variables	<i>MONTHEF</i>	<i>SCORE</i>	<i>SAL</i>	<i>CEOD</i>	<i>BOARDSIZE</i>	<i>INDUSTRYEF</i>
<i>MONTHEF</i>	1.0000					
<i>SCORE</i>	0.0323	1.0000				
<i>SAL</i>	0.1867***	0.3005***	1.0000			
<i>CEOD</i>	-0.0217	0.1614***	0.0985*	1.0000		
<i>BOARDSIZE</i>	0.1383**	0.0925	0.2308***	0.0545	1.0000	
<i>INDUSTRYEF</i>	-0.0956	0.0716	-0.0712	-0.0745	-0.1659***	1.0000

CSR<0 score below zero

CSR>0 score above zero

Significant at 1% (***), 5% (**), 10% (*) levels

<i>CAR15</i>	Cumulative abnormal return 5 days subsequent to the stock donation announcement date
<i>VGDONATED</i>	Value of the donated gift
<i>MONTHEF</i>	November-December gift indicator, gifts announced on the last two months of the year
<i>SCORE</i>	Corporate social responsibility level of the firm
<i>SAL</i>	Donors compensation level
<i>CEOD</i>	CEO duality
<i>BOARDSIZE</i>	Size of board of directors
<i>INDUSTRYEF</i>	If the firm that the donor is CEO or Chairman, is in IT or Financial Services Sector

As shown in Table 3, the Pearson correlation matrix presents in general balanced measured coefficients with most of them being significant at the 1% and 5% level. In the scenario when CSR is below zero, the correlation between the corporate social responsibility score (SCORE) and the level of compensation (SAL) of the top executive or chairman of the board, appears to have a negative and significant coefficient at the 1% level (-0.1467), the highest observed one in the independent variables of this sample. This indicates that the more social irresponsible the firm the lesser the earnings amount for the donor. In the scenario when CSR is above zero, the output is reversed, and we see that the more social responsible the firm, the higher the earnings amount for the donor, with a correlation of 0.3005 and is significant at 1% level. The results of these tests do not bear a limitation on the interpretive capacity of the results presented below because no multicollinearity was found.

In addition to the correlation coefficient test, I investigate if heteroscedasticity and autocorrelation are present in my samples, by implementing the Breusch-Pagan and the Breusch-Godfrey tests respectively. The Breusch-Godfrey test reveals no sign of autocorrelation, and the Breusch-Pagan test shows no sign of heteroscedasticity suggesting that the results are not biased.

4.1 Independent Variables

In this section I present the results and discuss on the cross sectional regression analysis, as shown in Table 4. I focus on presenting the outcomes relevant to the independent variables, trying to connect them with the abnormal returns and the value of the donation following the announcement of the transaction, to confirm or reject the hypotheses developed earlier in this paper. My main independent variables are the November-December month effect (MONTHEF) which equals one if the donation is declared during the last two months of the year, the Corporate Social Responsibility score (SCORE) that measures the level of social responsibility/irresponsibility of the firm, and the level of the Compensation that the donor earns (SAL)¹².

Table 4. Regression Results

	<i>Dependent Variables</i>			
	<i>CAR15(-)</i>		<i>CAR15(+)</i>	
<i>Independent Variables</i>	Coefficient	T-statistics	Coefficient	T-statistics
<i>MONTHEF</i>	-0.036	-0.66	-0.047	-1.21
<i>SCORE</i>	0.027 **	2.04	-0.015	-0.25
<i>SAL</i>	0.125 ***	2.80	0.071 ***	1.93
<i>Control Variables</i>				
<i>CEOD</i>	0.010	0.22	0.052	1.45
<i>BOARDSIZE</i>	-0.080	-0.74	-0.022	-0.29
<i>INDUSTRYEF</i>	0.017	0.75	0.025 **	2.572
<i>C</i>	-0.083	-3.04	-0.045	-1.72
R-Squared	0.030		0.053	
Observations	433		286	

¹² CEO compensation as reported in the SEC filings includes cash, restricted stock, options, and other compensation. Other compensation consists of long-term incentive compensation (LTIP), retirement compensation, and other perquisites that they receive from their company.

Table 4 continued

<i>Independent Variables</i>	<i>Dependent Variables</i>			
	<i>VGDONATED (-)</i>		<i>VGDONATED (+)</i>	
	Coefficient	T-statistics	Coefficient	T-statistics
<i>MONTHEF</i>	-0.172**	-2.10	-0.014	-0.17
<i>SCORE</i>	0.078 ***	2.80	-0.022 *	-1.75
<i>SAL</i>	0.2309 **	2.08	0.176 **	2.20
<i>Control Variables</i>				
<i>CEOD</i>	-0.039	-0.41	0.142	1.79
<i>BOARDSIZE</i>	-0.022	-1.28	0.023	1.71
<i>INDUSTRYEF</i>	0.096	0.46	0.325	0.89
<i>C</i>	4.101	5.46	4.280	7.71
R-Squared	0.057		0.056	
Observations	433		286	

Significant at 1% (***), 5% (**), 10% (*) levels

(-): CSR score below zero

(+): CSR score above zero

Variables Description

<i>CAR15</i>	Cumulative abnormal return 5 days subsequent to the stock donation announcement date
<i>VGDONATED</i>	Value of the donated gift
<i>MONTHEF</i>	November-December gift indicator, gifts announced on the last two months of the year
<i>SCORE</i>	Corporate social responsibility level of the firm
<i>SAL</i>	Donors compensation level
<i>CEOD</i>	CEO duality
<i>BOARDSIZE</i>	Size of board of directors
<i>INDUSTRYEF</i>	If the firm is in IT or Financial Services Sector

All my hypotheses investigate specific aspects related to the gift transaction, in order to have a better understanding behind the stock donation behaviour of some top executives. My first hypothesis questions whether top executives who decide to announce their stock donation during November or December, reflect higher cumulative abnormal stock returns for the firm, and a higher gift value. The null hypothesis states that the cumulative abnormal returns and the gift-value are not related to the top executive's announcement date decision of their stock donation.

Analysis of the month effect shows that when the CSR score of the firm is lower than zero, there is a negative but not significant effect on the five-day abnormal returns of the firm. The same holds for when the CSR score is higher than zero. A percentage increase in the month when the transaction is reported, leads to a decrease of 0.036% and 0.047% on the abnormal returns of the firm for the five days following the announcement, for both cases when CSR is below or above zero, respectively. This finding rejects the hypothesis I developed and supports the null hypothesis, stating that the firm's stock returns are not related to the decision of the donor on when to announce the gift transaction. Although my findings reject my research question, they provide more evidence on Yermack's findings stating that gifts made across the year but not on December, are more likely to be strategically timed or backdated.

The result of the month effect on the value of the gift, shows a negative effect for both subsamples. More specifically when the CSR score is below zero there is a significant decrease at the 5% level equal to 0.172% of the value of the gift. My findings reject the hypothesis I formed, and accept that the announcement date in the last two months of the year does not relate to higher donated value. Even though many top executives decide to report their stock gift transactions once their tax liability is known to them, as is shown in the Sample Characteristics table, my findings do not prove that the value of the gift is positively affected by the date. A possible explanation for that would be that top executives know that a high valued stock donation announced close to the end of the year, would trigger a negative market reaction and probably try to avoid potential negative publicity focusing on their tax behaviour.

My second hypothesis, explores whether CEOs' compensation level, reflects higher cumulative abnormal returns and a higher gift value. The null hypothesis states that the cumulative abnormal stock returns of the firm and the amount donated, are not related to the top executives' earnings. As shown in Table 4, I find that the dollar amount declared by the CEO or Chairman of the board, has a positive and significant effect at 1% and 5% level, on the cumulative abnormal returns following 5 days after the announcement and the value of the gift, respectively, hence accepting the hypotheses¹³.

¹³ As a robustness test I also regressed the cumulative abnormal returns for a 20-day event window, and the percentile amount of shares donated compared to the cumulative number of shares donated on the year that the transaction took place. Results are presented on Table 5 in the Appendix section.

More precisely, I find that for firms considered highly socially irresponsible, a percent increase of the salary of the donor, will lead to a 0.125% higher level of abnormal returns, at a 1% significance level. For the firms that have a high social morality level, a percent increase in top executive's compensation would also increase the abnormal returns by 0.071%, at a 1% significance level. Interestingly, when CSR is negative, the average abnormal returns are negative, but when the CSR is positive the average abnormal returns are positive¹⁴.

This finding sets a solid foundation on stock returns reaction when there is stock donation, and can be interpreted accordingly. For example, whether a top executive or a chairman of the board of firms with high social impact, earns more and decides to donate his/her stock, then the market receives this gesture as an alignment of the charity incentives between the firm and the executive. On the other hand, when a CEO or Chairman of a low level CSR firm earns more and decides to donate his/her stock, then it leads to more negative abnormal returns. This suggests that the donor serves his/her own personal tax motives, a finding that is in line with Yermack (2009) and Gosh & Harjoto (2011).

Considering the value of the gift, I find that one percent increase in the income earned by the donor, would lead to a 0.231% and a 0.176% increase in the amount donated, at a 5% significance level, for cases when the firms' CSR score is below and above zero respectively. This finding, can be reviewed in relevance with the donor's motives I mentioned before. According to Gosh & Harjoto (2011), CEOs that lead firms with low corporate social responsibility donate more than those who are executives on corporate responsible firms, indicating either that they are trying to fill in the gap that their company fails to do, or they are taking advantage of this corporate irresponsibility, to accomplish their own personal tax incentives. To decide which of the two scenarios is more possible, a further investigation has to be carried, and more behavioral parameters need to be included.

My third and last hypothesis investigates whether the level of Corporate Social Responsibility of the firm is inversely related to the cumulative abnormal stock returns of the firm and the value of the gift donated. The null hypothesis expects that the cumulative abnormal stock returns and the amount donated are not related to the CSR activity of the firm. I find that the more negative the

¹⁴ See Table 2, *Descriptive Statistics*.

CSR level, the higher the cumulative abnormal returns for the firm, for a 5-day event window¹⁵, and higher the dollar amount of the gift. On the other hand, the more positive the CSR score of the firm, the lower the cumulative abnormal return for a 5-day event window, and lesser the value of the gift. My findings support the hypotheses developed and reject the null hypothesis of no relation.

In conclusion, I see that one level of decrease in the negative CSR score, would lead on a 0.027% decrease of negative abnormal returns, at a 5% significance level, indicating that the market reacts more negatively on a stock donation behaviour by the CEO or Chairman, thus strengthening the my previous conclusion on the tax incentives. Moreover, as shown in the table of the results, one level of decrease in the score will subsequently lead in a 0.078% increase of the value of donation, at a 1% significance level. In contrast, a one level increase in the positive CSR score, would lead to a decline by 0.022% of the gift-value, at 10% level of significance.

My findings, are in alignment with those stated by Gosh & Harjoto (2011), who discovered that the level of CSR consequently points to a smaller level of intensity of stock donation and a smaller value of the gifts donated by insiders. Moreover, the residual numbers for all my regression models, as presented in Table 4, are in the same level as Yermack's (2009) results.

4.2 Control Variables

Regarding the results for my control variables, I find that they are mostly insignificant but in alignment with what I was expecting based on previous findings. In general, I find that a CEO being simultaneously Chairman of the board of director would have a positive impact on the cumulative abnormal returns for the firm. This duality would also have a negative effect on the value of the donation only when the CSR score is below zero and a positive effect when the CSR is above zero. A possible explanation that is in line with the findings of Gosh & Harjoto (2011), is that in corporate responsible firms, CEO's charity incentives are expressed through corporate policies and top executives are more eager to participate in philanthropic activities.

Results on the board size support previous findings of Yermack (1996) and Muller & Kolk (2010). I find that a larger in size board of directors would lead to the occurrence of less abnormal

¹⁵ As a robustness test I also regressed the cumulative abnormal returns for a 20-day event window, and the percentile amount of shares donated compared to the cumulative number of shares donated on the year that the transaction took place. Results are presented on Table 5 in the Appendix section.

returns. Considering the value of donation, I see that when the CSR score of the firm is negative, the larger the board of directors, the smaller the value of the gift. The inverse relationship holds when the CSR score of the firm is higher than zero. The same reasoning as the one discussed for the duality phenomenon can explain this positive relationship, although more research studies are necessary to further decide on the maximum board size that can be effective on implementing appropriate corporate policies and control executives' decisions.

Lastly, my results on the Industry effect confirms Bishop and Green's observation that the philanthrocapitalists' club is consisted of successful CEOs and businessmen served as top executives or chairman of board for firms that operate in the Finance or Informatics industry (Bishop and Green in their book 'Philanthrocapitalism: How the Rich Can Save the World', 2008). More specifically I find that in both cases when CSR score is above or below zero, the stock donation from executives or chairmen on IT or Financial Services firms points to higher cumulative abnormal returns and higher gift value. Table 4 shows that especially when the CSR is above zero, in 0.025% of the cases at a 5% significance level, it leads to higher abnormal returns for the firm.

4.3 Robustness Tests

In order to verify my findings stated in the previous section, I performed an additional cross sectional analysis, with the same independent and control variables that were used in my main regression. Following the robustness procedures that Yermack (2009) and Gosh & Harjoto (2011) implemented, I chose to re-estimate my models, having as dependent variables the Cumulative Abnormal Returns of the firm for the following 20 days after the announcement (CAR +1, +20) and the percentile amount of shares donated compared to the cumulative number of shares donated on the year that the transaction took place (PCT). Similarly, as in my main analysis, my sample is constructed based on the CSR score of the firm. The results of these robustness regression models are presented in table 5, in the appendix section.

Findings in general support my main results. I discovered that the independent and control variables used, have the same effect on the variables I use as dependent on the re-estimate procedure. I find that only the compensation level has a significant positive effect at 5% level on

the cumulative abnormal returns with a 20-days event window (CAR +1, +20), which strengthens my finding on the market reaction, and as explained on the results section before, the donor either serves his personal tax deductible motives or is in alignment with the philanthropic incentives of the firm he represents.

My robustness tests do not present generally highly significant results. To further increase the significance of the results and their explanatory value, further research need to be done.

5. Conclusions and Discussion

In this section I present a synopsis of all the analysis I have extensively covered previously in this paper, discuss the results and limitations of the research I followed and suggest potential research that could elucidate further the hypotheses formed here.

Since the early 2000s, there has been an academic and media interest in the charity activity of some worldwide known billionaires, and a debate has begun among those in favor and against these philanthrocapitalists. The philanthrocapitalists are businessmen who have made their fortunes leading successful firms and the charity vehicles they use is donate the stocks they earn in their compensations. Previous studies have argued that self-interest motives lie behind their decision to donate their stocks. Hence my research attempts to build a deeper connection among the stock donation behaviour, the donors' characteristics and the corporate governance characteristics of the firm they represent, in order to establish a solid reasoning on the motives behind the charity trend that have been observed.

My study investigates 719 stock gifts made from CEOs or Chairmen of the board of directors of U.S. firms, starting in 2005 till 2013. My sample is separated depending on the corporate level of responsibility for each firm, into two subsamples. My research draws three main conclusions based on the hypotheses I developed. Firstly, I found that there is no relation between the month that the donor reported the donation to the SEC, the abnormal returns for the firm and the value of the donation, stating that the stock gifts declared towards the end of the year do not necessarily happen based on tax deduction motives. Secondly, I discovered that the compensation level of the donor, in any cases of CSR level, has a high impact on his/her decision to donate and relates positively with higher abnormal returns for the firm and higher gift value. Thirdly, I observed that in stock donation cases, CSR score of the firm has a critical effect on the market reaction and on the dollar amount of the gift.

My study has been subject to some limitations, thus my results although significant cannot be generalized and set a solid foundation on the motives underlying the philanthropic behaviour of billionaires. The main limitation of this paper is the fact that my sample is not matched with the philanthropic foundations that were the recipients of the gifts, as was done by Yermack (2009). This process is extremely time consuming and the data information provided by the Edgar database

are not easy to match. By overcoming this obstacle, we could establish a more profound relationship between stock donation behaviour and tax motives. A second limitation is the lack of data regarding the compensation levels and the type of compensation. My sample is reduced radically since I had not sufficient information for all donors' total annual compensation, as reported to the SEC.

The findings of my analysis can have implications on various topics, for example tax reformation, insider trading laws, compensation policies, philanthropic foundation policies, corporate social responsibility and corporate governance. Generally, literature on stock donation behaviour is inadequate and further research needs to be done. The positive and significant impact of donor's compensation, needs to be further examined and to account also for the different types of compensation. Furthermore, behavioral parameters need to be added in future research, controlling for personal characteristics of the donor, but also for the interconnection the billionaires have on each other. Finally, it could be also examined how this behaviour is affected by external factors, like environmental ones, or in a more financial aspect, how new forms of investing (i.e. impact investing), can influence the philanthropic market.

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Appendix

Table 5. Regression Results for Robustness Test

	<i>Dependent Variables</i>			
	<i>CAR120(-)</i>		<i>CAR120(+)</i>	
<i>Independent Variables</i>	Coefficient	T-statistics	Coefficient	T-statistics
<i>MONTHEF</i>	-0.008	-0.68	-0.035	-0.45
<i>SCORE</i>	0.053	1.24	-0.001	-1.53
<i>SAL</i>	0.027 **	2.46	0.048	1.16
<i>Control Variables</i>				
<i>CEOD</i>	0.007	0.52	0.012*	1.93
<i>BOARDSIZE</i>	-0.020	-0.76	-0.013	-0.72
<i>INDUSTRYEF</i>	0.013	0.41	0.029	1.31
<i>C</i>	-0.173	-2.10	-0.069	-1.10
R-Squared	0.029		0.047	
Observations	433		286	
	<i>Dependent Variables</i>			
	<i>PCT (-)</i>		<i>PCT (+)</i>	
<i>Independent Variables</i>	Coefficient	T-statistics	Coefficient	T-statistics
<i>MONTHEF</i>	-0.058	-1.23	-0.022	-0.13
<i>SCORE</i>	0.028	1.40	-0.033	-0.87
<i>SAL</i>	0.058	1.23	0.042	1.55
<i>Control Variables</i>				
<i>CEOD</i>	-0.058	-0.83	0.016	0.88
<i>BOARDSIZE</i>	-0.028***	-3.36	0.082	0.24
<i>INDUSTRYEF</i>	0.073**	2.41	0.021	0.31
<i>C</i>	0.012	0.05	0.036	2.41
R-Squared	0.045		0.031	
Observations	433		286	

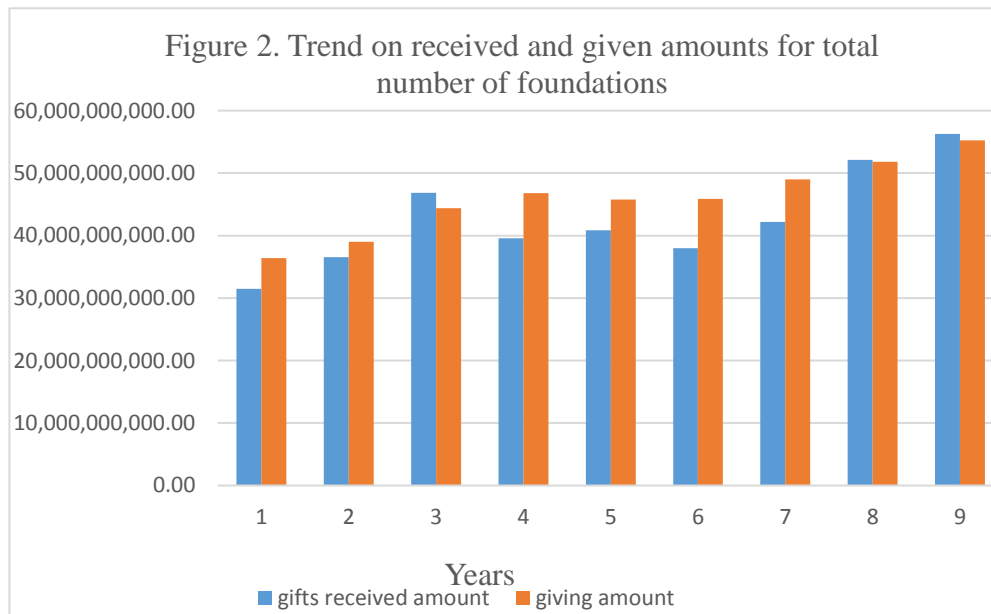
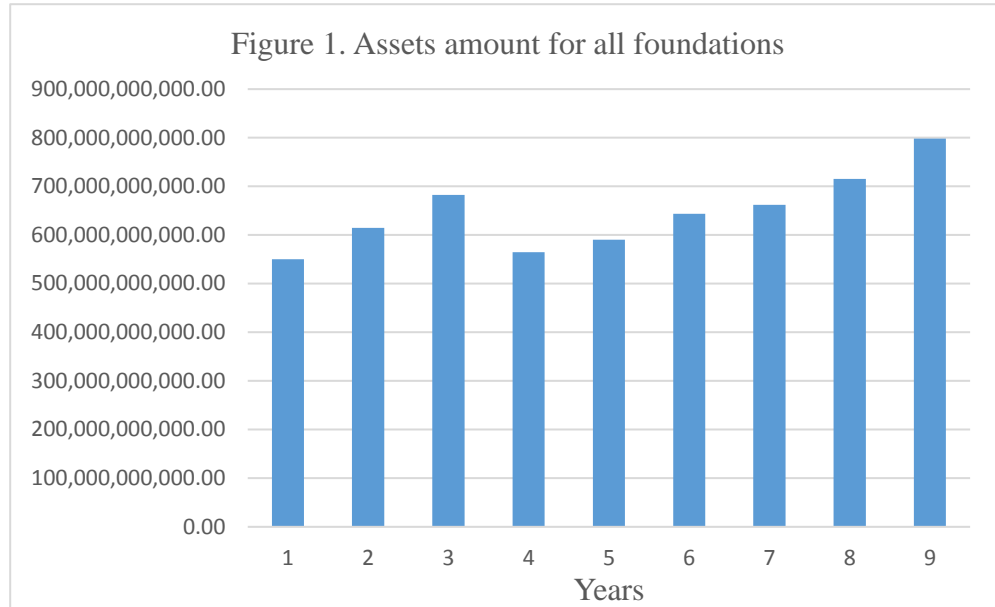
Significant at 1% (***), 5% (**), 10% (*) levels

(-): CSR score below zero

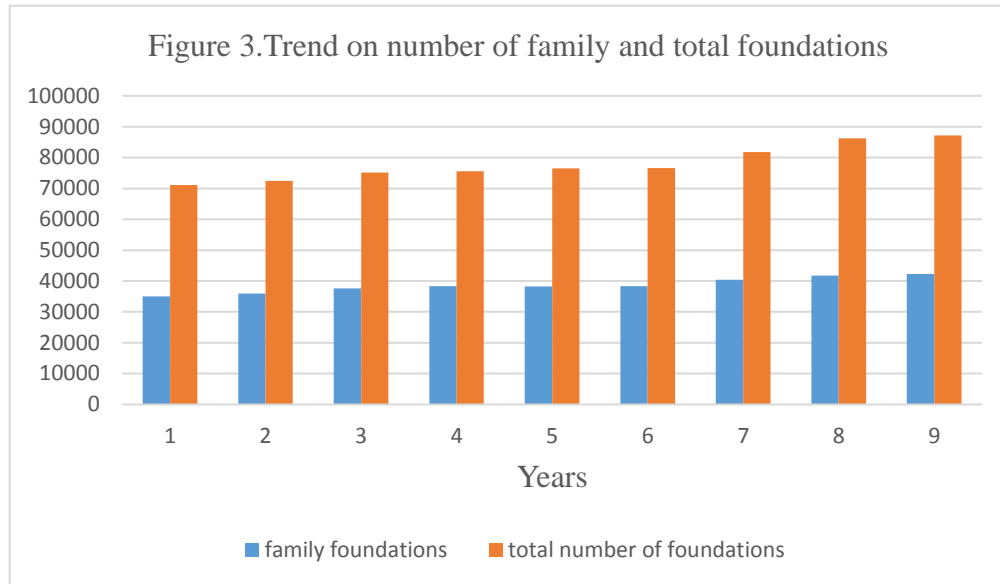
(+): CSR score above zero

Table 8: Variables Definitions

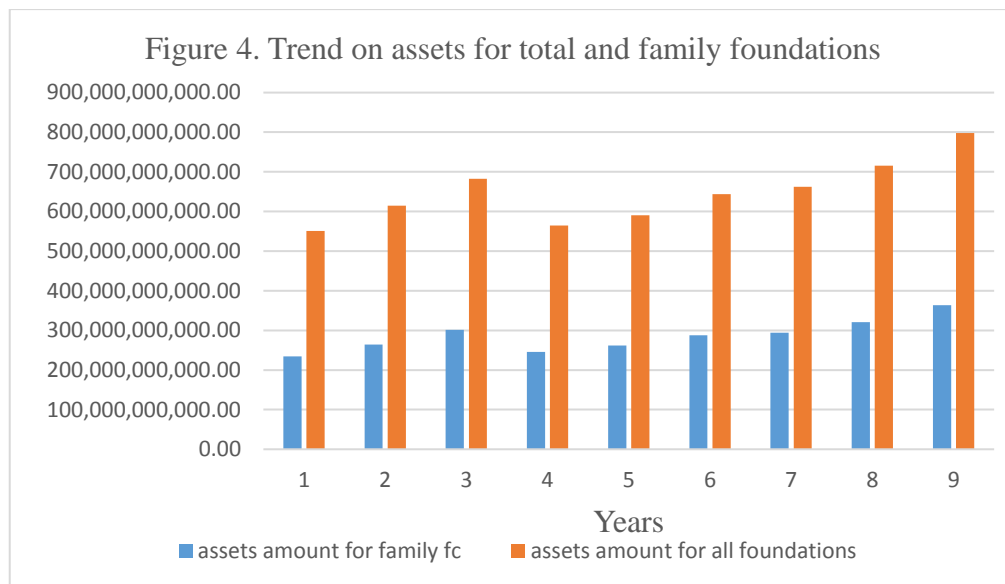
Dependent Variables					
VGDONATED/PCT			Value of the donated gift/Percentile amount of shares donated compared to the cumulative number of shares donated on the year that the transaction took place	CAR15/CAR120	Cumulative abnormal returns 5/20 days subsequent to the stock donation announcement date
Independent Variables			Expected Effect		
MONTHEF	November-December gift indicator, gifts announced on the last two months of the year	(+)	(+)	rejected	
SCORE	Corporate social responsibility level of the firm	(-)	(-)	confirmed	
SAL	Donors compensation level	(+)	(+)	confirmed	
Control Variables					
CEOD	CEO duality	(+)	(+)	confirmed	
BOARDSIZE	Size of board of directors	(-)	(-)	confirmed	
INDUSTRYEF	Dummy variable that checks if the firm is in IT or Financial Services Sector	(+)	(+)	confirmed	



Source: Foundation Center, 2016.



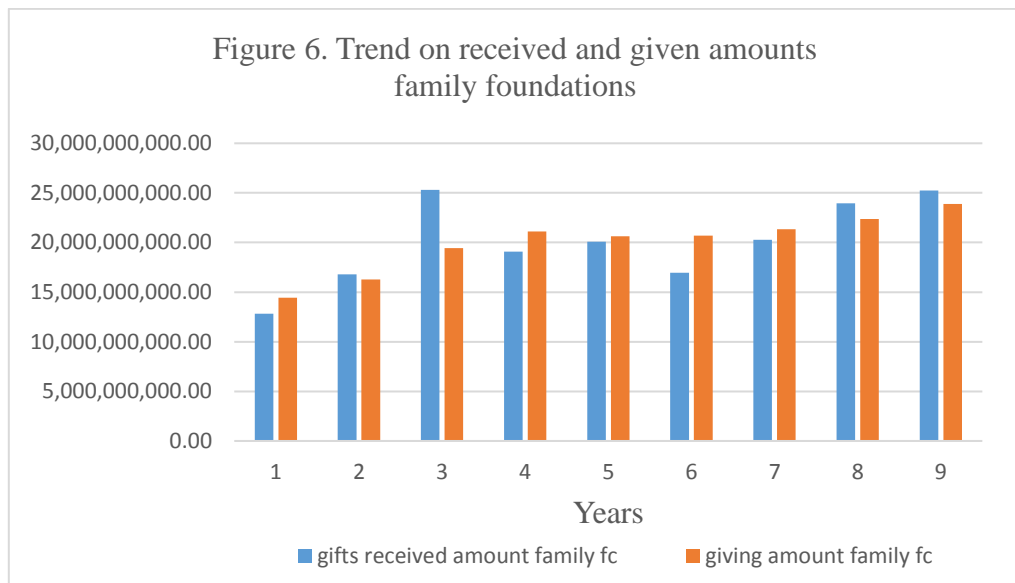
Source: Foundation Center, 2016. Years from 2005-2013



Source: Foundation Center, 2016. Years from 2005-2013. Amounts are in dollars.



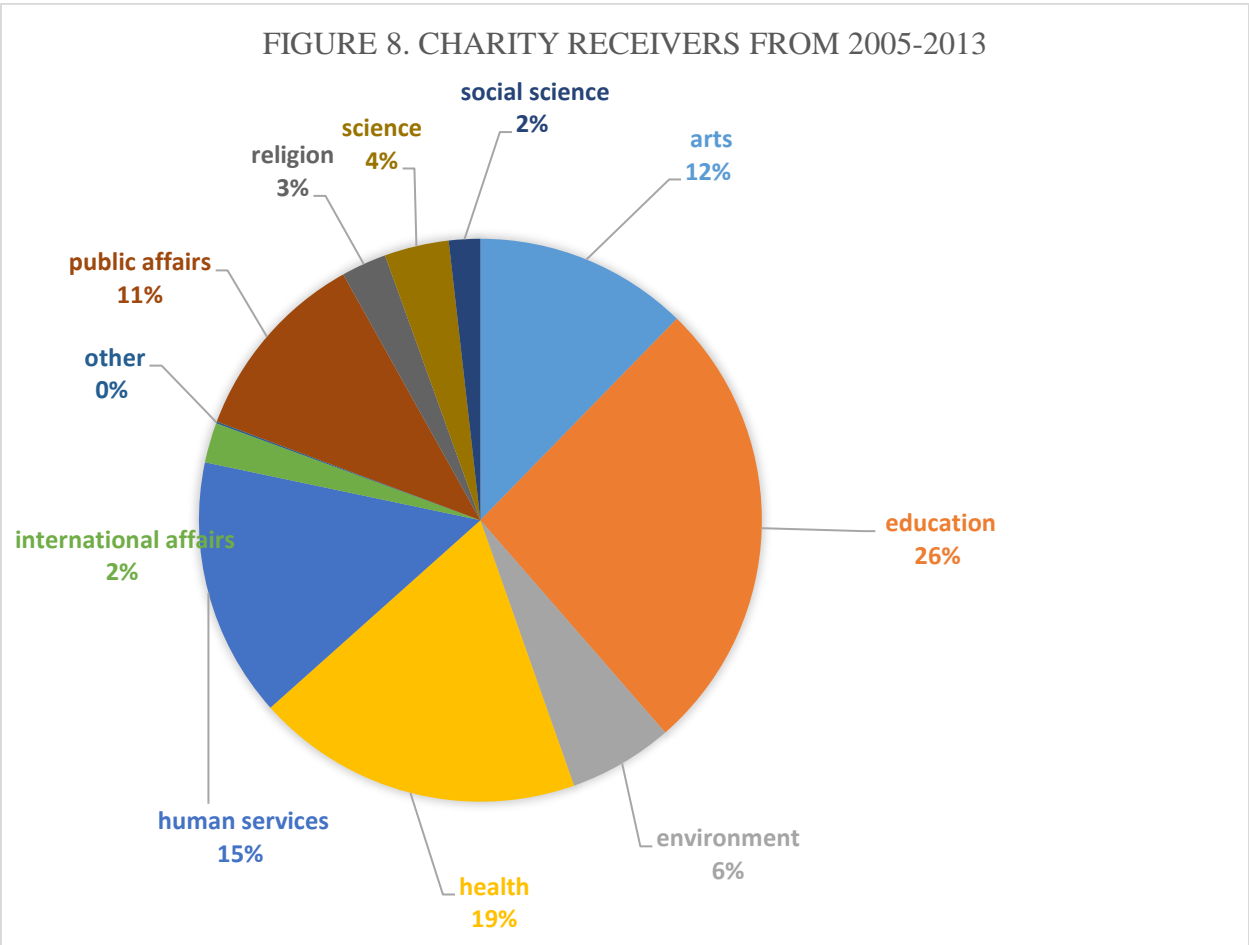
Source: Foundation Center, 2016. Years from 2005-2013. Amounts are in dollars.



Source: Foundation Center, 2016. Years from 2005-2013. Amounts are in dollars.



Source: Foundation Center, 2016. Years from 2005-2013.



Source: Foundation Center, 2016.

Table 6: Aggregate Fiscal Data on Number of Foundations in the U.S., from 2005 to 2013

year	number of foundations
2005	71097
2006	72477
2007	75187
2008	75592
2009	76545
2010	76610
2011	81777
2012	86192
2013	87142

Source: Foundation Center, 2016.

Table 7: Aggregate Fiscal Data Gifts Received Amounts for Foundations in the U.S., from 2005 to 2013

year	gifts received amount family fc	gifts received amount all fc
2005	12,830,871,857.00	31,464,932,504.00
2006	16,795,450,796.00	36,569,178,293.00
2007	25,318,987,147.00	46,843,959,389.00
2008	19,068,879,978.00	39,548,943,125.00
2009	20,080,109,027.00	40,861,833,185.00
2010	16,966,983,950.00	37,961,194,465.00
2011	20,282,471,738.00	42,158,676,746.00
2012	23,934,087,293.00	52,096,059,420.00
2013	25,250,004,684.00	56,240,796,586.00
TOTAL	\$180,527,846,470	\$383,745,573,713

Source: Foundation Center, 2016. Amounts in dollars.

Table 9. The 40 largest donors depending on the value of the gift

Year	Donor	Company name	Role	Gift Value	Compensation
2010	MIZEL LARRY A	M D C HOLDINGS INC	CEO	\$148,000,000	\$7,691,257
2012	MIZEL LARRY A	M D C HOLDINGS INC	CEO	\$102,000,000	\$8,672,157
2012	TANGER STEVEN B	TANGER FACTORY OUTLET CENTERS INC	CEO	\$20,100,000	\$12,649,609
2010	SIMPSON BARCLAY	SIMPSON MANUFACTURING CO INC	CB	\$16,400,000	\$517,437
2012	WREN JOHN D	OMNICOM GROUP INC	CEO	\$14,400,000	\$14,846,067
2012	CONNOR CHRISTOPHER M	SHERWIN WILLIAMS CO	CEO	\$12,900,000	\$10,982,033
2007	MARCIANO PAUL	GUESS? INC	CEO	\$12,500,000	\$40,199,085
2011	SOLSO THEODORE M	CUMMINS INC	CEO	\$11,700,000	\$15,011,170
2013	STEINER DAVID P	WASTE MANAGEMENT INC NEW	CEO	\$11,600,000	\$10,726,582
2013	WRIGHT JAMES F	TRACTOR SUPPLY CO	CEO	\$11,400,000	\$483,167
2008	JOHNSON CARL J	II VI INC	CB	\$10,300,000	\$1,051,953
2008	MILLER MARK C	STERICYCLE INC	CEO	\$10,100,000	\$874,643
2011	MARCIANO PAUL	GUESS? INC	CEO	\$9,875,830	\$5,547,203
2007	MARCIANO MAURICE	GUESS? INC	CB	\$9,830,000	\$6,024,308
2013	LEONARD J WAYNE	ENTERGY CORP DE	CEO	\$9,562,500	\$564,656
2008	MARCIANO PAUL	GUESS? INC	CEO	\$9,168,750	\$4,329,771
2013	COOK SCOTT D	INTUIT INC	CB	\$9,040,320	\$801,714
2009	MARCIANO MAURICE	GUESS? INC	CB	\$8,928,000	\$4,281,994
2013	HAYNE RICHARD A	URBAN OUTFITTERS INC	CEO	\$8,718,750	\$68,487
2011	FARAHI JOHN	MONARCH CASINO & RESORT INC	CEO	\$8,151,764	\$740,183
2012	BUSH WESLEY G	NORTHROP GRUMMAN CORP NEW	CEO	\$7,964,401	\$15,519,812
2012	HAYNE RICHARD A	URBAN OUTFITTERS INC	CEO	\$7,830,000	\$33,273
2008	ROLLINS GARY W	ROLLINS INC	CEO	\$7,254,220	\$2,576,100
2008	BROTMAN JEFFREY H	COSTCO WHOLESALE CORP NEW	CB	\$7,216,321	\$3,791,432
2012	FARR DAVID N	EMERSON ELECTRIC CO	CEO	\$6,782,160	\$6,962,122
2013	LEONARD J WAYNE	ENTERGY CORP DE	CEO	\$6,375,000	\$564,656
2013	CHAZEN STEPHEN I	OCCIDENTAL PETROLEUM CORP	CEO	\$6,372,100	\$6,887,359
2007	FAIRBANK RICHARD D	CAPITAL ONE FINANCIAL CORP	CEO	\$6,118,780	\$17,069,585
2005	HAYNE RICHARD A	URBAN OUTFITTERS INC	CEO	\$5,892,000	\$498,934
2009	WILMERS ROBERT G	M&T BANK CORP	CEO	\$5,756,702	\$2,848,176
2013	COOK IAN M	COLGATE PALMOLIVE CO	CEO	\$5,631,289	\$14,562,132
2007	DEFEO RONALD M	TEREX CORP	CEO	\$5,357,703	\$9,024,990
2013	MARCIANO PAUL	GUESS? INC	CEO	\$5,172,630	\$14,146,283
2008	DEFEO RONALD M	TEREX CORP	CEO	\$5,136,638	\$9,978,963
2006	WILMERS ROBERT G	M&T BANK CORP	CEO	\$5,054,967	\$1,209,777
2013	WILMERS ROBERT G	M&T BANK CORP	CEO	\$4,993,000	\$3,447,756
2012	IGER ROBERT A	WALT DISNEY CO NEW	CEO	\$4,950,288	\$37,103,208
2007	FISHER ROBERT J	GAP INC	CEO	\$4,825,000	\$266,348
2011	MARCIANO MAURICE	GUESS? INC	CB	\$4,714,000	\$11,188,319
2013	ROGERS JAMES P	EASTMAN CHEMICAL CO	CEO	\$4,670,400	\$7,619,782