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**CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL  
PERFORMANCE**

Evidence from European companies from years 2005-2013

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**ABSTRACT**

The purpose of this study is to find out whether there is a link between corporate social responsibility (CSR) and corporate financial performance (CFP). By utilizing CSR and CFP data from European companies between years 2005 and 2013 this thesis presents results which indicate how the relationship between the variables is formed and how it develops throughout time. Furthermore this thesis also studies the causality and direction of the relationship more closely. The topic is current because corporate social responsibility has become increasingly important in recent decade. CSR scandals like the Volkswagen emission scandal in 2015 have emphasized the topic and it is evident that negative publicity can harm company's financial performance.

Although the negative side of irresponsibility can be easily detected, it is interesting to investigate the topic from other angles as well. Does excellent CSR performance improve company's financial performance as well or is it enough if a company stays at average level. What is the optimal level of CSR and does it create financial benefits if company exceeds it. Academic theories explain the relationship from different angles as well. As well as negative relation, also positive relation between the variables can be explained with a logical theoretical framework. The nature of the relationship has also been in the center of interest among academics because it has been detected that it changes throughout time. The effect which CSR has on CFP can be very diverse.

By utilizing the Thomson Reuters ESG research data this thesis analyzes how CSR performance impacts CFP. In the center of interest are 200 randomly selected publicly listed European companies from different industry sectors. Multiple OLS regression model is applied to analyze the panel data from years 2005-2013. Results indicate that performing well in CSR weakens company's CFP. More closely performing well in the human rights category causes CFP to drop. Results are statistically significant when both account based and market based CFP measures are utilized.

This thesis also discusses the possible issues and errors which CSR and CFP measures cause and provides idea for future research. Although this thesis indicates that high CSR firms underperform financially, the nature of the relationship has still a lot to investigate.

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**KEYWORDS:** Corporate social responsibility, Corporate financial performance, Return on Assets, Market to book value, Panel data, Disaggregated measures



## 1. INTRODUCTION

Corporate social responsibility (CSR) has become an important topic in recent years because the public awareness of social, environmental and ethical issues has grown and led to increased concerns about companies' social responsibilities. Therefore also investors' preferences have changed and sustainable or socially responsible investing (SRI), which focuses strongly on companies that have adopted proper CSR procedures, has become a hot trend in recent decade. (Renneboog et al. 2008.) According to European Sustainable Investment Forum the market which consists of funds that have adopted SRI guidelines has grown from 58 billion € in 2005 to 354 billion € in 2013. (European Sustainable Investment Forum 2014.)

However this modern approach has raised new unanswered questions about the link between CSR practices and company's financial performance (CFP). Could it also be financially profitable to invest business profits to activities which improve the social situation of the area where the company operates? Other important question focuses on the environment and often costly environmental friendly business activities. Are the investments in environment just wasted costs or does it bring benefits for example in terms of risk management?

Naturally this dilemma has got the attention of academics and practitioners and the number of studies exploring the relationship between CSR and CFP has increased rapidly in recent years. Although many studies indicate that CSR increases company's competitiveness and brings other financial benefits as well, there is still an ongoing debate if companies' investments in CSR are just an additional cost harming shareholders' wealth.

One good example from real world explaining the relationship between corporate social responsibility and corporate financial performance is Volkswagen's recent emission scandal in 2015. Volkswagen is one of the biggest car manufacturers in the world and sells millions of cars per year worldwide. On 18.9.2015 many newspapers around the world reported that Volkswagen had been installing elaborate software in their environmental friendly diesel vehicles. These cars' pollution controls only worked when they were being tested for emissions. The rest of the time, the vehicles emissions were significantly higher. Once the Frankfurt stock exchange opened on Monday 21.9.2015 the scandal led to immediate stock crash and Volkswagen's stock decreased approximately 30 % within the following two days. Before Volkswagen's CEO Martin

Winterkorn had to step aside he rushed to apologize for the firms' stakeholders: *"I am personally deeply sorry that we have broken the trust of our customers and the public. We will cooperate fully with the responsible agencies, with transparency and urgency, to clearly, openly, and completely establish all of the facts of this case."*

The overall cost of the scandal has reported to rise into billions of U.S. dollars and the Guardian reported that just the fines could add up to 18 billion us dollars. The harm which this scandal causes to Volkswagen's reputation and sales is challenging to even measure.



**Figure 1:** Volkswagen stock price crash in 2015 September after the emission scandal.

It is evident that this kind of irresponsibility will eventually destroy firm's financial state. This has also been documented by Johnson (2003) who found that investors penalize companies that act in an illegal or irresponsible manner. Disregarding the key stakeholders like customers by manufacturing non- environmental friendly products which customers thought to be environmental friendly can be very damaging. In the center of CSR is environmental and social responsibility which can be achieved by taking into account firm's stakeholders' interests. Volkswagen failed in both cases, it addressed a clear irresponsibility towards environment and tried to cover it up by making empty promises to its stakeholders.

The above example provides evidence how financially damaging irresponsiveness can be, but what is the case when no scandals emerge. As Johnson (2003) pointed out there is no evidence that investment in CSR activities which go beyond legal standards will reward firms financially. This causes financial scholars and practitioners to question the

whole corporate social responsibility. Traditional corporate finance interpretation suggests that investment in CSR should be considered as any kind of investment which is expected to pay off after a certain time. Problems emerge because traditional investment measures like net present value do not fit well in CSR concept. But after considering the different CSR-CFP theories the spending in CSR may seem as a reasonable investment. European Commission provides few examples and suggests that investing in CSR can ease the access on capital, bring risk management benefits and improve customer relationships (see European Commission 2011). These benefits certainly improve also corporate's financial performance but how significant the relationship is in the end and can it be discovered with traditional financial performance measures remains unanswered. Other important concern also emerges when companies and their managers try to satisfy their stakeholders mutually at the expense of shareholders. This conflict between different stakeholders' interest can though be disregarded if the CSR-CFP relationship turns out to be neutral or positive.

### 1.1. Purpose of the study

Purpose of this study is to investigate the association between CFP and CSR and link the results on current theories and previous findings. In order to analyze which dimension of CSR is the most important factor considering the CFP, this thesis separately analyzes the different dimensions by using disaggregate measures for social and environmental factors. This study uses both market based and account based measures to examine how CSR turns into CFP or whether there is statistically significant relationship between the variables. Causality between these two variables is also in the center of interest after analyzing the relationship. Motivated from the Volkswagen scandal this thesis focuses only in 200 randomly selected European publicly listed companies in different industry sectors. Along with empirical results, this study also offers an encompassing overview about corporate social responsibility and its short term and long term targets by introducing different theories explaining the CSR-CFP relationship from academic perspective. In addition this study also tries to explain CSR framework from different angles and find out whether there exists other than financial motives behind CSR procedures.

## 1.2. Structure of the study

Chapter 1 focuses on introducing the topic, explaining the purpose and constructing the research problem. Chapter 2 offers an overview of previous research and their results. The second chapter also gives an overview about the results that can also be anticipated in this study. After presenting the results from previous studies this thesis takes a step forward and hypotheses are formulated. The next chapter explains CSR more in detail and introduces theories and motives behind CSR activities. Chapter 4 is about financial performance. This chapter presents reasons why CSR might or might not contribute to CFP. This chapter also analyzes what kind of limitations and advantages the account based and market based measures have. Chapter 5 explains the methodology and data behind this study. Chapter 6 discusses the findings and possible reasons explaining them. Finally chapter 7 summaries this thesis and conclusions are made.

## 1.3. Research problem

The first research question tries to answer whether there is a significant relationship between CSR activities and firm's financial performance. Furthermore it tries to specify whether this association is positive or negative. First research question is therefore formulated as followed:

*“Is there a link between corporate social responsibility and corporate financial performance within publicly listed European companies?”*

After considering the relationship between the variables this thesis advances and considers the time effect. Due to the assumption that the effect may be time evolving and investments in CSR may require time to become financially profitable, this thesis studies the relationship by using lagged regression model. Second research question is formulated as followed:

*“Does the adoption of CSR procedures translate immediately to financial performance or is the relationship lagged?”*

The final area which requires more research is causality between the variables. Therefore third research question is formulated as followed:

*"Does good corporate social responsibility performance cause better corporate financial performance"*

## 2. PREVIOUS RESEARCH AND HYPOTHESES

The relationship between corporate's social performance and financial performance has been investigated before by many academics but in the last decade the number of studies focusing on the link between CSR and CFP has growth substantially. The results are somewhat mixed and the discussion about whether there is a link between these two variables still continues. Due to the fact that CSR has various effects in different industrial sectors and different markets and the measurement of CSR is not established, it is logical that the findings of previous results vary. Also previous studies determine the financial performance in several ways. Some use market based measures such as earnings per share (EPS) and others use accounting based measures such as return on assets (ROA).

### 2.1 The relationship between CFP and CSR

One of the most remarking papers investigating the relationship between CFP and CSR is considered to be the research from Orlitzky et al. (2003) which used a meta-analysis of 52 previous studies. According to their research, investing in CSR activities does pay off and eventually it leads to a better financial performance. After Orlitzky's research there have been many other studies which report a positive linkage between CFP and CSR as well. Studies like Chang & Kuo (2008), Dunn & Sainty (2009), Moneva & Ortas (2010), Wang (2011) and Ahamed et al. (2014) report at least some sort of positive relation between CFP and CSR. Some of these studies focus on accounting based measures while others consider market based financial performance.

Eleven years after Orlitzky's (2003) analysis Lu et al. (2014) still report that most of the studies have found a positive linkage between CSR and CFP. But the results are not unanimous and there are also studies which indicate that investing in CSR related activities is not so profitable after all. Brammer et al. (2006) studied the relationship between stock returns and CSR activities for publicly listed British companies. They found a significant negative linkage between firm's CSR performance and stock returns in UK. By comparing different portfolios which were constructed on the base of companies' activity in CSR activities, they found that the portfolio which encompassed socially least desirable stocks generated highest abnormal returns.

Makni et al. (2009) investigated the causality between corporate social performance and

financial performance in publicly held Canadian firms. They used both account and market based measures to define financial performance and the results implied that there exists a significant negative relationship between CSR activities and firm's financial performance. According to their research socially responsible firms had lower profits than socially irresponsible one.

It is interesting to see that both Brammer et al. (2006) and Makni et al. (2009) found a negative association between CSR and CFP, and both of the papers indicated that environmental dimension of CSR had the strongest negative effect on financial performance. Also the results were more robust when using disaggregated measures of CSR.

## 2.2.Causality between CFP and CSR

According to Lu et al. (2014) the causality between CSR and CFP variables has been a very popular topic in recent decade. Between years 2002 and 2011 there have been tens of studies which concentrate on the causal relationship between CFP and CSR. Majority of the studies investigated how CSR affects CFP and only 25 of the studies examined the cycle from reversed perspective. A summary of the review pointed out that 38 of the studies reported a positive causality from CSR to CFP, 21 of the studies did not find any significant evidence on the causal relationship between the variables and 6 reported a negative causality from CSR to CFP. Within the studies which focused on the impact of CFP on CSR, they reported that 15 out of 25 studies concluded that positive CFP leads to higher CSR. 8 of the studies did not report any significant relationship and the last two reported negative causality from CFP to CSR. (Lu et al. 2014.)

While the causality between the variables has been a trend among latest research papers, it was also already discussed in paper presented by Waddock et al. (1997). They investigated whether investing in CSR causes better CFP or does good CFP predict higher investments in CSR activities. Waddock et al. found evidence that the relationship operates in both ways. By using debt-to-asset ratio they concluded that companies will invest in CSR if they can afford it. To test the movement other way around they used 1-year lag for financial performance. After analyzing the results they stated that there is a virtuous cycle between the variables.

Makni et al. (2009) study focused mainly on the causality aspect by using the Granger

causality approach. They found no evidence that high CFP Granger causes high CSR performance. Although, as discussed previously, they reported that high corporate social responsibility score Granger causes weaker corporate financial performance on average. This result was only robust when considering market based measures and more closely when studying stock returns.

Likewise many other studies also Orlitzky's et al. (2003) meta-analysis considered the causal relationship between financial performance and firm's social performance. They investigated how the progress develops by examining just a single company and its cycle between the two variables. They concluded that the nature of the relationship is contemporaneous and the two variables mutually affect each other. According to their findings the relationship is virtuous and investing in CSR activities helps the firm to become more successful financially. Due to the discovery that financially profitable firms tend to invest more in CSR, it is challenging to draw a single line where the cycle begins.

### 2.3. Time effect on the CSR-CFP relationship

The review presented by Lu et al. (2014) indicated that the time effect on the CSR-CFP relationship is also in the center of interest. 54 out of 84 studies performed between years 2002 and 2011 examined the time effect and investigated how the relationship between the variables evolves over time. Most studies used the lag regression model in order to capture the time changing relationship between the variables.

Barnett & Salomon (2006) studied the CFP-CSR relationship by investigating mutual funds which practice socially responsible investing. At a fund level they discovered a time evolving relationship between socially responsible funds and their returns. According to their findings the yield curve of the social responsible investing fund is U-shaped. At first as a result of social screening the returns tend to decline and lowest financial returns are observed within the moderate level of social responsibility. However after the number of socially responsible investments in the fund reach its maximum, the financial performance of the socially responsible investing fund recovers. Authors suggested that at a firm level the shape of the relationship is inverted U-curve, implying that investing in CSR starts to pay off after some time but then the effect diminishes.

Lu et al. (2014) report that studies like Inoue et al. (2011) and Wagner (2009) concluded that the relationship between the variables is time evolving and non-linear. Although the non-stationary process has been captured by many studies, it is hard to conclude how the curve is shaped in the end. The shape can be very different between various industries and markets. (Lu et al. 2014.)

#### 2.4. Hypotheses development

Based on previous studies, few typical features can be identified explaining the association between CSR and CFP. The nature of the relationship has been detected to be lagged and the direction can be either positive or negative. In some cases the relationship has been non-significant. By following these results, the following hypotheses are formulated:

*H<sub>1</sub> : There is a significant relationship between corporate social responsibility and corporate financial performance*

*H<sub>2</sub> : There is a significant lagged relationship between corporate social responsibility and corporate financial performance*

*H<sub>3</sub> : Corporate social responsibility causes corporate financial performance*

### 3. CORPORATE SOCIAL RESPONSIBILITY

The debate on corporate social responsibility is still an ongoing discussion because no universal definition regarding company's main objective and tasks has been concluded. This debate is often referred as shareholder vs. stakeholder discussion. On one end there are academics and practitioners who think that companies are responsible to improve the welfare of very large group of different stakeholders including local community, environment, employees and other groups which have stake in the company. These theories approach CSR from stakeholder perspective. This perspective is best described by Virvilaite and Daubaraite as followed:

*“Corporate social responsibility is continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.”* (Virvilaite & Daubaraite 2011).

On the other end there are capitalists who claim that company's only mission is to serve shareholders' interests and companies do not have any other social responsibilities. In academic literature this approach towards CSR is often referred as shareholder theory. The foundation for this theory was presented by Nobel Prize winner economist Milton Friedman:

*“There is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engage in open and free competition without deception or fraud.”*(Friedman 1970).

Friedman argued that companies and more closely their directors are shareholders' agents and their main task is to generate wealth for stakeholders and disregard other parties' interests if they are not in line with shareholders interest. Further he suggested that it is government's mission to design the rules and regulation so that other stakeholders' interests are also taken into account.

European commission combines both of these perspectives and defines corporate social responsibility in a modern and more neutral way:

*“Company's mission is to integrate social, environmental, ethical human rights and*

*consumer concerns into their business operations and core strategy in close cooperation with their stakeholders. Objective is to maximize the creation of shared value, which means to create returns on investment for the company's shareholders at the same time as ensuring benefits for the company's other stakeholders.”* (European Commission 2011)

In the center of this modern CSR approach is Freeman's stakeholder theory which suggests that there are many other groups than just shareholders who are affected by the actions of corporations. These groups are for example investors, customers, employees and suppliers. From stakeholder perspective it is important to take these groups also into account when making corporate decisions (see Freeman 1984). Jensen (2002) expands Freeman's view with enlightened stakeholder theory which suggests that stakeholder approach towards business operations improves ultimately also shareholders' wealth. Jensen argues that it is unlikely that business will be successful if it for example makes unsustainable products for customers and pays minimal salary for its employees.

Garriga & Melé (2004) summarize the existing CSR theories and motives in detail and divide the CSR approaches and theories into four categories. First group consists of instrumental theories which consider CSR as tool to generate financial performance. Second group includes political theories which underlie the responsible use of social power. Integrative theories highlight the legitimacy theory. By integrating social demands into business operations firms gain legitimacy from their stakeholders to operate. Fourth group consists of ethical theories which emphasize firms' moral in its operations. These theories approach corporate social responsibility from very different perspectives and not all of them are financially oriented. Some explain and justify CSR actions from ethical perspective and discuss that corporations cannot always be considered as profit seeking organizations. The following paragraphs explain these theories in more detail and link them to some examples of CSR strategies presented by Garriga and Mele (2014).

### 3.1. Instrumental theories

*“Company's mission is to serve the interests of shareholders in the best possible way, using corporate resources to increase the wealth of the shareholders by seeking profits”.* (Branco & Rodrigues 2006).

Branco and Rodriguez argue that companies' ultimate objective is to improve shareholders' wealth. Instrumental theories deal CSR as a tool which can be used to gain financial benefits. These benefits are also likely to translate into shareholders' wealth. Instrumental theories combine the enlightened stakeholder theory and shareholder theory but the main goal is to create value for shareholders. According to Garriga and Mele (2004) this objective can be achieved by investing in CSR activities which generate for example competitive advantages.

### 3.1.1. Maximizing shareholder value

Maximizing shareholder value is a very straightforward instrumental theory which focuses in improving company's stock performance. Every investment in CSR should improve stock value or otherwise they can be seen as just wasted expenses (see Garriga & Mele 2004). This theory has received critic because often CSR does not translate immediately into stock value and for example Bird et al. (2007) report that it takes time until investing in CSR improves stock performance. Jensen (2002) suggests that value maximizing should not be the criteria in day to day decisions. Every decision cannot be consistent with value seeking but can be ultimately a major contributor to it. Value seeking objectives can be achieved through long term strategic goals and vision, not through everyday decisions based on value creation.

### 3.1.2. Competitive advantage strategies

Investing in CSR can be considered to create competitive advantages. This group of CSR theories consists of three different approaches. First approach is built around Porter's competitive advantage model. Porter and Kramer (2002) applied this model to study how social investing can create competitive edge. They argue that companies can achieve economic and social goals simultaneously by participating in philanthropic actions in business areas where the company operates. A company selling network services can for example provide its expertise for local community to educate citizens to use network services or donate money for actions which improve connections in the area. This kind of charitably effort improves the long-term business-environment where the company operates.

Second approach towards competitive advantage strategies is referred as resource based view (RBV). In this approach CSR is considered to be a valuable resource which creates competitive advantage. Good CSR record is believed to provide internal and external

benefits which irresponsible companies are not able to achieve. Internal benefits relate to employee productivity and external benefits are related to reputational benefits which will help to attract better employees. (Branco & Rodrigues 2007.)

Third source of competitive edge is best described by Prahalad (2002). It consists of strategies which focus on the bottom of the economic pyramid. It suggests that the poorest people on the earth should also be considered as potential customers, not as a concern. Investments in their well-being can translate them into solid customers in the long run and enhance company's financial performance through the rapid growth of revenue.

### 3.1.3. Cause-related marketing strategies

According to Garriga & Mele (2004) these instrumental CSR strategies are often strategies where businesses promise a certain amount from sales into charity or to some other good cause. These strategies encourage customers to buy certain products and at the same time they are being socially responsible. Cause-related marketing strategies do not just create revenue for the company, they are also being used to enhance the brand image and reputation. Heo and Nan (2007) report that customers tend to have more favorable attitudes toward companies which use cause-related marketing messages in their operations.

## 3.2. Political and institutional theories

Political theories can be divided into two major categories, to corporate constitutionalism theories and to corporate citizenship theories. They discuss and approach CSR theories in a way which focuses on the association of corporate social power and the responsible use of it. Especially large publicly listed companies should be considered as political entities because they are major employers and tax payers. These companies affect citizens' everyday life like governments and therefore they should be considered rather as social institutions than profit seeking businesses. (Garriga & Melé 2004.)

### 3.2.1. Corporate constitutionalism

Corporate constitutionalism theory is based on Davis (1960; 1967) research. He

concluded that companies are social institutions which have great social power. They can affect for example pricing and reshape the market situation so that there is a conflict between the actual price and the price which customers are willing to pay. This jeopardizes the perfect market theory and price is no longer formatted based on the balance between supply and demand. This example implies how powerful large companies are and therefore they should use their power responsibly. Businesses should also see their social power as earned privilege and if they do not use it responsibly they will lose it. (Davis (1960; 1967) and Garriga & Mele (2004.))

### 3.2.2. Corporate citizenship

According to Jeurissen (2004) corporate citizenship was originally a theory which suggested that corporations should be considered as citizens in society. Citizenship requires that companies are acting the same way as humans, meaning that they should obey the laws, regulation and ethical norms set by government and society. Matten et al. (2003) presented critique against the corporate citizenship view and argued that it is just a theoretical approach which has no practical relevance. Big multinational corporations cannot be considered as citizens because they have much greater social power than normal citizens. Therefore companies can significantly affect government's decisions regarding regulation and legislation and pursue their own objectives. Today corporate citizenship has various meanings for different groups and some companies use it almost as a synonym for CSR in their reports.

### 3.3. Integrative theories and legitimacy

Integrative theories are all about how business integrates with social demands. The core of integrative theories is that society interacts with business effectively. Company's growth, existence and continuity depend strongly on the society. Businesses should integrate their operations so that they are in line with prevalent social values and social demand because society gives businesses the legitimacy to operate. According to integrative theories companies' social responsibilities change throughout time because society's focus can switch for example from environmental issues to social issues. Important is that companies' recognize the prevailing social values and integrate their operations to correspond them. This way companies can gain society's acceptance to operate. (Garriga & Melé 2004.)

### 3.3.1. Issues management

In the center of this approach is the gap between society's expectations of CSR and the actual CSR that firms carry out. Often society expects companies to participate in more CSR activities than companies are willing to. It is important that companies recognize these prevailing gaps and try to close them the best way they can. The biggest challenge is that these gaps are often located in the grey zone meaning that they are not regulated so it is challenging for the management to choose whether to take the actions or not. (Garriga & Melé 2004.)

### 3.3.2. Stakeholder management theory

Stakeholder management theory is focused on groups which have a stake in company. Suppliers, customers, employees and shareholders are examples of stakeholders. They are strongly affected by company's decisions. In the center of stakeholder management is to integrate corporate actions so that they serve the interest of its stakeholders the best possible way. The objective is to achieve well balanced cooperation with stakeholder groups and also integrate their interest into corporate objectives. The goal is to achieve Pareto optimum situation so that stakeholders are satisfied with company's operations and decisions (see Garriga & Melé 2004). Fernando and Lawrence (2014) expand stakeholder management to key stakeholders. According to their research it is important that company recognizes the most powerful stakeholders (i.e. key stakeholders) who have significant impact on business success. Management's top mission is to focus strongly on fulfilling their requirements. They do not suggest that least powerful stakeholders should be totally ignored but in complex situations the most powerful stakeholders such as employees, customers, suppliers and shareholders are the top priority.

### 3.3.3. Corporate social performance

Wood (1991) suggests that corporate social performance (CSP) describes the outcomes of social responsible behavior. Marom (2006) expands this view and suggests that CSP is a measure which reflects company's success in CSR. CSP can be seen as a measure for CSR. It describes how effectively companies can detect the prevailing issues in society and how they respond to them. For example if there is a prevailing issue regarding females' rights in society, a company can try to ensure that it provides equal job opportunities for both men and women. Corporate social performance regarding this

issue can be then measured based on how equally its managerial positions are distributed between men and women.

### 3.4. Ethical theories

Ethical theories emphasize the ethical role in decision making and argue that the prevailing ethical values in society should also lead the way in business decisions. This group of theories examines CSR through the notion that companies should treat their social responsibilities as ethical obligations. The main objective in every decision is to do ethically the right thing. Companies should for example consider sustainability issues in their decisions and ensure that also future generations have the possibility to meet their needs. Other important ethical issue is related to universal rights. Companies should follow widely accepted rights like human rights in their operations. (Garriga & Melé 2004.)

#### 3.4.1. Normative stakeholder theories

This model is called normative stakeholder commitment model and it differs from the basic stakeholder theory so that it does not distinguish key stakeholders from the group of stakeholders. It suggests that all stakeholders have same rights and they are equal regardless of their social power. Every stakeholder should have the right to be treated equally in firm's decision making process and therefore stakeholders' values form a moral foundation for corporate strategy. Ultimately the combination of different stakeholders' moral principles guides how the company does business. (Garriga & Melé 2004 and Fernando & Lawrence 2014.)

### 3.5. The Triple bottom line

Firm's performance has been traditionally measured with indicators which focus on the financial performance. Financial indicators like return on assets, gross profit margin and earnings per share have been considered to be good measures to indicate firm's performance. But nowadays it is well recognized that no business can be successful in the long run if they disregard their key stakeholders and that is the reason why environmental and social aspects have become more important in recent years. In recent decades the theory of triple bottom line (TBL) accounting, which was introduced by

John Elkington in 1994, has become increasingly popular in investing, management and consulting. The triple bottom line accounting model combines firm's social performance, environmental performance and financial performance to measure the overall performance of business. Norman & MacDonald (2004) note that TBL is also sometimes referred as a model of three P's which are planet, people and profit.

Norman and MacDonald argue that the three bottom line model has become almost as a synonym for corporate social responsibility. Many modern corporations use it as a core for their business strategy. Many businesses build their entire operations around TBL framework and believe that it will be a good ground for sustainable and profitable business. The supporters of TBL suggest that it is equally important to report and audit all three dimensions including financial, environmental and social performance. By considering all these three aspects in their reporting, businesses can satisfy their stakeholders, gain legitimacy and reduce information asymmetry. (Norman & MacDonald 2004.)



**Figure 2:** Three bottom line framework.

### 3.6. Guidelines and frameworks for CSR reporting and practices

There are number of CSR frameworks and reporting guidelines which help businesses to design and evaluate their CSR strategies. These frameworks can be roughly divided into three groups which are principle based frameworks, guideline based frameworks and standard based frameworks.

Principle based frameworks are built around principles which are considered to be fundamental truths. One of the major principle based CSR framework is UN Global Compact ten principle CSR guide. With over 12500 participants in 170 countries UN Global Compact is the largest corporate sustainability initiative and many firms use UN's guidelines as a core in their CSR strategies. UN Global Compact 10 principle program is based on TBL framework and it covers all the three dimensions although it focuses strongly on the social dimension. According to United Nations (2015) companies can set a stage for long term success by integrating the ten principles into their strategy, policies and procedures. UN determines the ten principles as followed:

1. Businesses should support and protect the internationally proclaimed human rights
2. Businesses should make sure that they are not complicit in human rights abuse.
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
4. Businesses should take into account the elimination of forced and compulsory labor.
5. Businesses should take into account the effective abolition of child labor.
6. Businesses should take into account the elimination of discrimination in respect of employment and occupation.
7. Businesses should support a precautionary approach to environmental challenges.
8. Businesses should undertake initiatives to promote greater environmental responsibility.
9. Businesses should encourage the development and diffusion of environmentally friendly technologies.
10. Businesses should work against corruption in all its forms, including extortion and bribery.

From traditional point of view governments can be considered to be responsible of these

principles but according to studies like (Jamali & Mirshak 2007 and Matten et al. 2003) it has been widely recognized that companies can also lead the way in achieving a better society. Matten et al (2003) underlie that when governments fail to achieve the above principles, corporations should enter and protect humanity and sustainability.

The AA1000 series framework is an example of standard based framework. It was developed in United Kingdom and it consists of three standards which are the assurance standard, the accountability standard and the stakeholder engagement standard. Standard based framework provides a tool to evaluate CSR. AA1000 series provides also operational guidance for firms and with the help of AA1000 series framework companies can enhance and evaluate their reporting, responsibility and sustainability. (Tschopp (2012), Tschopp & Huefner (2015), CSR Frameworks Review for the Extractive Industry (2009.))

Global reporting initiative (GRI) provides a guideline based framework for CSR reporting. Guidelines can be seen as a set of CSR related procedures which direct firms to achieve their goal. By following these guidelines companies should achieve their ultimate CSR objective. GRI guides how firms can effectively report their performance on environment, on labor practices, on human rights, on society and on product responsibility. GRI is widely recognized CSR reporting framework and it provides also reputational benefits. Also UN Global Compact encourages firms to use GRI framework in their CSR reports The most recent fourth generation GRI framework provides also standards for CSR reporting and the total CSR performance can be reliably evaluated because GRI offers a third party verification program for companies' CSR reports. (Global Reporting Initiative 2013)

### 3.6. Drivers behind corporate social responsibility

A part of CSR is often voluntary and therefore from financial perspective it is important to recognize the key factors which motivate firms to adopt often costly CSR strategies and disclose their CSR reports. According to and Idowu and Papisolomou (2007) firms have not just become more ethical and CSR reporting is often linked to financial incentives. Their research summarizes that managers believe that CSR is good for business and no purely ethical or moral motives can be found. Studies like (Goss & Roberts (2011), El Ghoul (2011), Cheng (2014) and Kim et al. (2014)) support this view and present evidence that CSR provides financial benefits in terms of risk

management and cost of capital. Ultimately these will reward firm financially and generate shareholder wealth. Many academic studies (see Orlitzky et al. 2003 for examples) have provided evidence supporting the positive relationship between CSR and CFP.

According to Kolk (2004) firms can gain societal benefits when they report their CSR performance. Companies can enhance their reputation and credibility. By using widely accepted CSR reporting standards like GRI reporting standards firms can increase their transparency. Idowu and Pappasolomou (2007) support this view and suggest that the goal in CSR reporting is to fulfil stakeholders' requirements and the need of information.

Legitimacy theory is the most widely used theory explaining CSR disclosures. Firms improve their legitimacy by voluntarily disclosing their CSR reports. With a proper CSR report firms can inform stakeholders that they are following the current legislation and society's norms and respecting the prevailing ethical values. By this organizations improve their legitimacy and they receive acceptance for their operations. (Fernando & Lawrence 2014.)

Kolk (2004) suggests that with decent CSR reporting firms can also track their CSR progress against specific targets, facilitate the implementation of the environmental strategy and clearly deliver corporate messages internally and externally. By CSR reporting corporations can report their attitudes toward social and environmental issues to every stakeholder group more effectively.

Although some companies believe that CSR reporting can bring benefits for the organization, some take the opposite attitude towards CSR reporting. Kolk (2004) reports that some firms find CSR reporting too expensive or they believe that their reports could damage their reputation. They are not willing to publish their CSR reports because they think that it could cause legal issues or wake up activists. The reporting policies can also be very different across industries and some firms justify their lack of CSR publishing by the fact that competitors are not publishing their reports either.

Although Idowu and Pappasolomou failed to find the ethical motives behind CSR, some authors suggest that there are also companies whose CSR reports and actions are strongly motivated by ethical concerns. Adams (1998) discusses that companies CSR reports give an impression of corporation ethical values but the question remains still

unanswered; are the motives behind CSR reporting truly ethical or are firms just trying to gain financial benefits by appearing as ethical organizations.

According to research performed by Fassin et al. (2011) profit maximization is not always the main objective in decision making when exploring small businesses' CSR strategies. Often small firms do not have a clear and designed CSR strategy and therefore manager's ethical and moral values play an important role in day to day decision making. In most cases the entire organizational culture among small businesses is based on manager's personal values and therefore whether the CSR is implemented by employees depends on manager's attitude towards it.

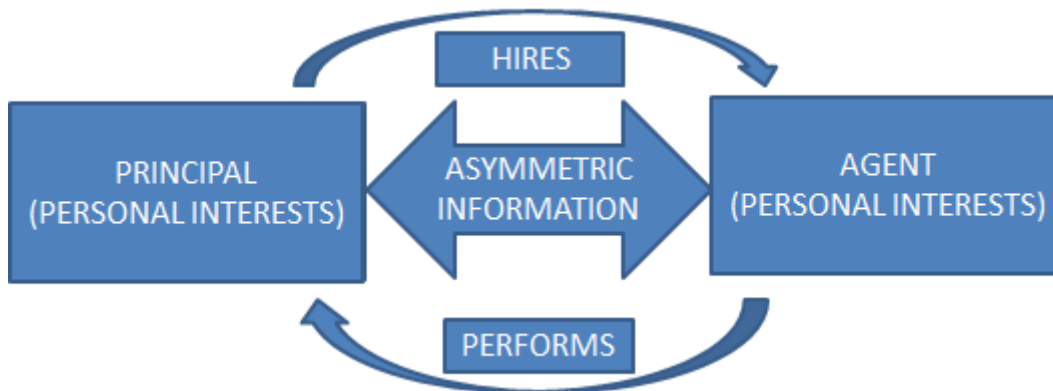
Hemingway and Maclagan (2004) argue that managers' personal beliefs form important drivers for corporate social responsibility when there is no formally adopted CSR culture in organization. Managers' individual actions can also encourage the employees to think that their choices matter. The authors question the entire CSR concept and suggest that CSR is not only organization's choice and the true corporate social responsibility rises from individuals' actions and values.

As described above CSR depends on manager's attitude towards it. Fabrizi et al. (2011) present that CEO's attributes and monetary and non-monetary incentives have significant impact when building managerial motivation towards organization's CSR strategy. They report that CEO's monetary incentives affect negatively on CSR and managers are not willing to take part in CSR if their personal bonuses are closely linked to firm's financial performance. However their research also reveals that new CEO's tend to invest more in CSR because they are hoping to gain legitimacy from stakeholders. The question whether CEOs are willing to invest in CSR is also strongly linked to CEO's personal attributes. Young career oriented CEO's feel the market pressure much more than old experienced CEOs. Therefore young CEOs have relative short time horizon and are often not willing to invest in CSR because it might take time until it offers financial benefits.

Barnea and Rubin (2010) take a different approach and argue that managers are willing to participate in CSR because they are pursuing their own benefits. They try to build their reputation and appear as social responsible citizens. Although this might lead to better career opportunities for managers, it might also be in a conflict with shareholders interest.

### 3.6.1. Agency theory

Agency theory addresses the relationship between principals and agents. Principals (i.e. shareholders) hire agents (i.e. managers) to work toward achieving principals' objectives. Occasionally the interest of agents and principals are in a conflict which creates agency problem. Managers may pursue their own personal goals and partly ignore shareholders' interests. This causes agency costs because shareholders need to create monitoring tools for managers and generate incentive programs which ensure that managers' interests are not in a conflict with shareholders' interest. From stakeholder perspective the principal group is extended to include all stakeholders and according to Brealey et al. (2011) managers are responsible to maximize the wealth of a large group of stakeholders. One reason why companies voluntarily disclose their CSR information is that it reduces agency costs. A comprehensive CSR report presents how managers are fulfilling the objectives set by different stakeholders. This is an efficient way to reduce agency costs related to information asymmetry between principals and agents.



**Figure 3:** Agency theory and asymmetric information.

### 3.7. Measuring corporate social responsibility

Although CSR has been studied and discussed since 1950's the universal definition of it is still an open debate. In recent years the understanding regarding CSR has increased but measuring it is still problematic and no universal and widely accepted measure for CSR has been introduced. This is not a surprise since many scholars and practitioners have different definitions and objectives regarding CSR. Many methods for CSR

measuring has been developed and presented but every of them have their limitations. Many of the limitations rise from the fact that CSR reporting is not yet standardized and companies use different guidelines and frameworks when they disclose their CSR information. The issues discussed above cause CSR measures sometimes to be biased and subjective and therefore studies related to CSR might not always be comparable. Turker's (2009) research points out four existing methods to measure CSR: Content analysis of corporate publications, reputation indices and databases, single-and multiple-issue indicators and scales for measuring CSR at individual and at organizational level. The following paragraphs will discuss these methods and their limitations carefully. (Turker 2009.)

### 3.7.1 Content analysis

According to Turker (2009) content analysis has increased its popularity in recent years since many companies disclose their CSR reports. Content analysis of corporate publications is relatively objective method to measure CSR once the attributes are selected so that the rating process is standardized and comparable when exploring different companies. The basic idea is to select the wanted attributes and then examine how they appear in companies CSR reports. McGuire et al. (1988) argue that content analysis can be compromised because firms might mislead readers by reporting CSR activities which they are not really participating. Turker (2009) report supportive results for McGuire by pointing out that previous research indicates that there is no clear relationship between firm's environmental performance and the content of their report.

### 3.7.2. Indices and databases

The second method to measure CSR is based on indices and databases. MSCI (Former KLD) sustainability index and Fortune index provide examples of CSR indices. MSCI ESG evaluates business practices worldwide by rating companies through their environmental, social and governance-related attributes. MSCI ESG rating includes 34 environmental, social and governance-related issues to determine firms' social performance. Companies are rated on AAA-CCC scale relative to the standards of their industry peers. According to MSCI their objective is to produce the most standardized information for investors (see MSCI 2015). Turker (2009) criticizes this method and argues that they are only designed to evaluate firms in certain area and therefore the results are not comparable across different areas. CSR practices can for example be very different between developed markets and emerging markets.

### 3.7.3. Single and multiple indicators

The third method uses single indicator to measure corporate social responsibility. An example of this is pollution control performance. Company's environmental performance is evaluated based on its ability to reduce emissions. This method can be extended by using multiple indicators which focus on different CSR dimensions. According to Aras et al. (2010) these measures are not always comparable through industries and some industries are for example already more environmental friendly than others.

### 3.7.4. Scales for measuring CSR at individual level

The fourth method uses individuals' values to measure corporate social responsibility. Basic idea in this method is to measure CSR values at individual level and scale it to reflect organization's CSR performance. Turker suggests that one popular method is to measure manager's personal CSR values and base organizations CSR performance on them. Although this method can in some cases reflect company's CSR, it might also give biased results because managers' personal values do not always direct company's CSR strategy. These methods often focus too much on individuals' values rather than companies' true CSR activities. Turker also points out that existing literature do not provide accepted scale which can be used to measure CSR performance at company level. Managers' personal values are more important CSR determinants in some organizations than in others. (Turker 2009.)

#### 4. CONCEPTUAL FRAMEWORK FOR THE CFP-CSR RELATIONSHIP

The relationship between corporate social responsibility and firm's financial performance has been in the center of CSR related discussion since Freeman presented his stakeholder theory in 1984. In 1994 he stated that the success of a company depends on how it can manage its relationships with different stakeholder groups. The relationships with employees, customers, suppliers and communities are equally important as relationships with shareholders. This new perspective reconstructed the traditional theories related to financial performance. Now many practitioners and scholars began to see stakeholder groups like employees as a source of financial performance, not just as an expense. Porter and Kramer (2006) extended the stakeholder approach and presented the shared value concepts. Firms should generate not just economic value but also value for other stakeholders. Companies should pursue economic goals and at the same time contribute to society at large. Carroll's (1991) pyramid model has been a core for shared value concept. It suggests that financial responsibility is the foundation for company's other responsibilities.



**Figure 4:** Corporate social responsibility pyramid. (Carroll 1991.)

Based on the pyramid model and shared value theory there is no reason to invest in CSR unless it pays off, otherwise it just harms profitability and ultimately no business can generate shared value if it is not financially sustainable. Wang et al. (2009) point out that it is important to justify CSR from economic perspective because CSR programs consume company's limited financial resources. Therefore the link between CFP and CSR has been widely investigated but no widely accepted theory explaining it has been

presented.

#### 4.1. Measuring financial performance

Financial ratios and measures are important tools for managers and investors. They are usually divided into two classes. Account based measures are derived from firm's financial statements while market based measures are related to future expectations. The book ratios are usually implied to help in internal decision making while the market measures help investors to choose between different investment decisions. Financial ratios have been developed to make different investments comparable with each other to help in investment decisions. (Brealey et al. 2011.)

One of the main reasons why the relationship between CFP and CSR has not been established is the fact that as well as CSR, also CFP can be measured with different methods. Many of the studies examined by Orlitzky et al. (2003) and Margolis et al. (2003) used account based methods such as return on assets, return on equity and return on investments to measure financial performance. Orlitzky et al. (2003) suggest that accounting measures indicate efficiency and organizational capabilities better than market based measures. McGuire et al. (1988) point out also drawbacks and limitations when using account based measures. Their objectivity might be biased because of managerial manipulation. Account measures are also backward looking and they are not reflecting the current financial performance.

Studies like Bird et al (2007) and Gregory et al. (2014) suggest that market based measures are more relevant when studying the relationship between CFP and CSR. Market based measures like market to book ratio and price to earnings ratio are more forward looking because future cash flows are embedded into stock prices. Gregory et al. (2014) report that most widely used market based measure in CSR literature is stock returns but continues that those results might be misleading. CSR measures are sticky and lagged measures of CSR can contribute significantly to present values. High CSR is also reported to lower the riskiness of the stock (see for example Mishra & Modi (2013) and Kim et al. (2014)) and therefore under presumptions of the traditional risk-reward framework high CSR firms might generate lower stock returns. This can be misleading and cause people to think that CSR is bad for business. Therefore it is important to focus also on firm value rather than solely on returns.

#### 4.2. Positive relationship between CSR and CFP

There are number of studies which have reported that the relationship between CSR and CFP is positive (see for example Roman et al. (1999) and Orlitzky (2003)). Most scholars in the field of management and marketing explain the CFP-CSR theoretical framework with stakeholder theory and suggest that the main reasons why CSR translates into financial performance is that stakeholders such as employees and customers are more willing to engage in transactions with companies that have good CSR record. From financial perspective it is challenging to investigate how this kind of hospitality towards the company translates into traditional financial measures.

The positive relationship between corporate social responsibility and financial performance can be best described with resource based view and stakeholder theory. Good relationships with stakeholders (i.e. high CSR) can be seen as a valuable resource which generates competitive advantages and ultimately improves financial performance. This view is based on social impact hypotheses presented by Preston and O'Banon (1997). It suggests that if firms meet their stakeholders' expectations and needs they receive compensation from it (i.e. improved financial performance) Branco et al. (2012) suggests that the benefits which can be achieved through stakeholder approach will ultimately make the company attractive for investors too.

Marom (2006) suggests that the CSR-CFP relationship can be explained with stakeholders' utility function. Every stakeholder group can be considered as customers and firms' CSR programs can be considered as social products for stakeholders. It requires inputs (costs) to manufacture the product (CSR program). Every stakeholder group has its own utility function which determines how much they require social outputs from firm and what kind of reward they are willing to give back. Basic assumption in this theory is that stakeholders' utility increases as the amount of social outputs increase. Satisfied customers tend to buy more products and satisfied employees are more motivated and therefore more productive. These are few examples how social outputs should contribute to firm's financial performance. Marom (2006) defines the generalized equation as followed:

$$(1) \quad R = \sum_j \sum_i R_{ji} = [U]_{N \times M} * [S]_{M \times 1} = [U] * [S]$$

The firm generates social outputs  $S^M$  which is represented by vector matrix  $[S]$ .  $[U]$  represents the utility matrix for stakeholder groups  $N$  who receive social outputs  $M$ .  $R_{ji}$

indicates firm's reward received from social outputs  $j$  from every stakeholder group  $i$ .

$$(2) \quad CSR_{profit} = \sum_j \sum_i R_{ji} - \sum_j C_j$$

Marom (2006) suggest that Equation (2) represents the possible profits received from CSR. If the reward  $R_{ji}$  is higher than CSR costs  $R_{ji}$  then it can be stated that CSR has contributed positively to firm's financial performance. Firms should therefore recognize their different stakeholders' utility functions and target their CSR actions toward groups which generate the highest utility.

Although theories like Marom (2006) can be useful in understanding the CSR-CFP relationship, the fundamental truth is still evident. From financial perspective CSR can only contribute to CFP only if it has impact on firm's cash flow or risk (see for example Bouslah et al. 2013). The following chapters will use the stakeholder approach to provide a conceptual framework on how CSR can affect either cash flow or risk or both.

#### 4.2.1. Benefits related to sales

Corporate social performance is widely believed to bring reputational benefits which increase sales. Studies like Berens et al. (2005), Sen & Bhattacharya (2001) and Brown & Dacin (1997) report that customers partly evaluate firms and their products based on company's responsiveness. Gauthier (2005) reports that there is also a growing demand for sustainable products. Customers tend to identify firms and products based on CSR and therefore CSR is an important tool in brand building. Krasnikov et al. (2009) argue that companies with good CSR record are therefore likely to have higher brand value and they can sell their products with higher margins and gain competitive advantages relative to their counterparts.

#### 4.2.2. Benefits related to employees

One dimension of stakeholder theory explaining CSR consists of respectful treatment of employees and employee incentives. Employee engagement and job satisfaction have reported to contribute positively to firm's financial performance and improve customer satisfaction (see for examples Blazovich et al. (2014), Schneider et al. (2009), Chi & Gursoy 2009)). Satisfied employees who share the same values with their employer are more creative and productive. Productive workers are naturally an important contributor to financial performance. Therefore it is important to consider how CSR affects to

company's working environment, job satisfaction, employee engagement and productivity. Aguilera et al. (2007) provide evidence that positive CSR may contribute to employees' performance and productivity. Brammer et al. (2006) extend this view and report that high CSR improves employees' morale, motivation and commitment to the company. Blackhaus (2002) also provides evidence that firms with good CSR records are able to attract educated and skilled workforce better than their counterparts. Employees play also a key role when CSR strategy is put into practice. Employees and their actions reflect firm's values and often employees are the ones who engage in transactions with other stakeholders. Based on this Collier and Esteban (2007) argue that employee engagement determines whether CSR strategy is implemented successfully

#### 4.2.3 Corporate social responsibility and risk

Benefits regarding employees and customers decrease firm's idiosyncratic risk. High CSR in these areas is considered to lower firm-specific risk because CSR activities balance firm's cash flow and responsibly businesses are less prone to negative events which can be considered to decrease cash flows. High CSR firms tend to have good relationships with stakeholder groups and this lowers the probability to face expensive law suits or fines or other distractions with stakeholders (see Gregory et al. 2014). Good CSR record can also help the firm to survive if a negative event occurs because the likelihood of for example customer boycotts is smaller if the company has generated social capital (see Godfrey et al. 2009). In summarized high CSR firms' stakeholders are more loyal and supportive in conflict situations and therefore these firms enjoy lower idiosyncratic risk.

Although CSR have been reported to lower firm-specific risk, investors are more interested in systematic risk. According to portfolio theory rational investors care only about the systematic risk because idiosyncratic risk can be eliminated through diversification (see Bouslah et al. 2013). When considering socially responsible investing this is not always the case because these investors can be defined as "irrational" investors. According to Barnett and Salomon (2006) socially responsible investors are not evaluating firms just based on the risk-reward framework but they are also concerned how companies meet their social and environmental requirements. Bouslah et al. (2013) argue that this leads to a so called "neglect effect" in which some investors treat assets as a consumption goods. Socially responsible investors have their preferences to exclude irresponsible firms from their investment portfolio. This causes

irresponsible firms to have smaller investor base which in turn according to Merton's (1987) equilibrium model leads to risk sharing problems which causes asset prices to fluctuate from their theoretical values. Therefore against the principles of different asset pricing models also idiosyncratic risk will affect asset pricing in financial markets.

Although CSR has been reported to affect asset pricing through idiosyncratic risk, it has also been reported to have a negative effect on systematic risk. Studies like Sharfman & Fernando (2008), Salama et al. (2011) and Oikonomou et al. (2012) present evidence that CSR can also lower firms systematic risk (i.e. lowers the beta of the stock). An example of systematic risk is oil price shock which affects market return in general. For example if a particular company has invested in an eco-friendly production and uses only renewable energy, the effect which the oil price shock has on its CFP is likely to be smaller.

#### 4.2.4. Corporate social responsibility and cost of capital

According to El Ghouli et al (2011) firms with high CSR record enjoy lower cost of capital. This can be explained with the risk return framework and with the neglect effect as discussed above. From financial perspective assets that are riskier should generate more profits. This basic assumption is based on the capital asset pricing model:

$$(3) \quad r_e = r_f + \beta_e(r_m - r_f)$$

Where:

$r_e$  = Expected returns

$r_f$  = Risk-free return

$\beta_e$  = Expected beta which reflects the systematic risk

$r_m$  = Market return

Stock's beta reflects how the company interacts with market returns. From the CAPM it can be concluded that higher beta is related to higher expected returns. From shareholder perspective higher beta reflects higher risk and therefore they require higher returns to compensate for the risk. From firm perspective higher risk is related to higher cost of capital. (Gregory et al. 2014.)

Based on the negative relationship between CSR and risk, it can be concluded from the CAPM that high CSR firms enjoy lower cost of capital. Heinkel et al. (2001) explains

this in more detail with the help of neglect effect. Investors' preference to invest in socially responsible assets causes responsible assets to be overvalued and irresponsible assets to be undervalued. In other words responsible firms enjoy lower cost of capital while irresponsible firms are penalized with higher cost of capital.

It has been also reported that high CSR lowers the costs of bank loans. Goss and Roberts (2007) argue that firms with lowest CSR scores pay higher costs on bank loans but this relationship diminishes when CSR score reaches optimal level and highest CSR companies do not enjoy lower borrowing costs than neutral CSR companies. One possible explanation for this is that firms with CSR concerns are riskier and banks require higher rates from these firms because their probability of bankruptcy is higher.

#### 4.2.5. CSR and firm value

As explained above, CSR might have positive effects on firm's cash flows for example through increased sales and through better productivity which have arose from reputational benefits. CSR might also reduce the risk related to expected returns. Based on these assumptions it can be concluded that CSR should also affect firm market value. Gregory et al. (2014) presents the equation explaining this relationship as followed:

$$(4) \quad V_t = b_t + \sum_{t+1}^{t=\infty} \frac{x_t^a}{(1 + r_e)^t}$$

Where:

$V_t$  = Value of the stock at time t

$b_t$  = Book value at time t

$x_t^a$  = Expected profits at time t

$r_e$  = Rate of return required by investors (i.e. cost of capital)

We can conclude from equation (4) and (3) that reduced risk  $\beta$  decreases the required risk premium  $r_e$  and therefore firm market value should increase. As discussed above CSR can also increase cash flows and therefore the expected profits  $x_t^a$  will grow and lead to higher market value if required rate remains unchanged. If CSR affects positively to growth of cash flows and negatively to risk (i.e. required return by investors), it is evident that there is a link between firm value and CSR.

Recent studies like Gregory et al. (2014) and Fatemji et al. (2015) have focused to investigate the relationship between firm value and CSR to investigate if the reduced

riskiness or increased profitability transforms into market value. Fatemji et al. (2015) studied if CSR has a positive impact on firm value through growth, cost of capital and probability of survival. They concluded that although CSR actions might be expensive and reduce positive cash flow in the short run, in the long run they seem to affect positively to firm value. Gregory et al. (2014) studied how different CSR strengths and concerns impact on firm value. The authors concluded that “greenness” in employee and product dimensions is likely to lead higher valuation. Interesting in their research is that toxicity (i.e. CSR concerns) decreases value in all dimensions of CSR. Finally they also investigated the source of increased (decreased) value and tried to explain whether the higher valuation arises from reduced risk or from higher expected growth rate. According to authors green firms do have significantly higher expected long run growth rates than toxic firms. This is likely to lead into higher market value. Although they found also a link between cost of capital (i.e. risk) and firm value, its impact on market value is much smaller.

#### 4.2. Negative relationship between CSR and CFP

Research performed by Brammer et al. (2006) explained the negative association of stock returns and CSR with investors’ behavior. Socially responsible investors are not willing to sell stocks that have high CSR although they are underperforming financially. This causes these stocks to be mispriced related to their risk and therefore the prices deviate from their theoretical values. According to the authors investors require lower return than asset pricing models suggest which in turn based on equation (4) leads to overvaluation of these stocks and therefore their stock returns are lower. This study provides a great example for the statement presented by Gregory et al. (2014) which highlighted that it is important to consider also the firm value, not just stock returns. Other possible explanation presented by Brammer et al. (2006) was that investors see CSR as an expenditure which affects cash flows negatively. Therefore based on equation (4) high CSR firms are penalized with lower market values.

Makni et al. (2009) explained the negative relationship with trade-off theory. It states that socially responsible behavior costs more than it generates profits so that the net income is negative. Therefore CSR spending can naturally be considered as a bad investment decision As Makni et al. pointed out this was only reported when short term CFP was considered. The negative association in short term can be explained with the time effect. At the beginning the net income for CSR activities will be negative and it

takes time until these investments might turn into financial benefits. Preston and O'Bannon (1997) provide an alternative explanation for negative association between the variables. The authors suggest that managers may pursue their own interests with the help of CSR. When firms are performing financially badly the managers invest in CSR to offset their poor financial performance.

#### 4.4. Inversed U-shape relationship between CSR and CFP

Although the relationship between CSR and CFP might at first seem as a linear equation, it is challenging to specify the optimal level. As Marom (2006) suggested each stakeholder group has its own utility function with diminishing marginal utility. After reaching the optimal level of social outputs, the utility gained from the next output is lower. This is one possible explanation for the studies which have reported that the relationship between CSR and CFP is U-shaped. Choi and Wang (2009) provide evidence supporting this view. They argue that at first when the number of philanthropic actions increase it improves also the financial performance but once the optimal level is reached the net income related to those actions turns into negative. For example if the diminishing marginal utility theory holds the first donation to charity can improve stakeholder relations significantly more than the second one. Going beyond the optimal level might not pay off.

#### 4.5. Summary of the relationship between CSR and CFP

Preston and O'Bannon (1997) summarize six possible hypotheses which explain the causality and direction between CSR and CFP. These are social impact hypothesis, trade off hypothesis, the slack resource hypothesis, the positive synergy hypothesis, the negative synergy hypothesis and managerial opportunism hypothesis.

The social impact hypothesis is based on the stakeholder approach. By fulfilling stakeholders' expectations firms gain reputational benefits which will eventually have an effect on CFP. The trade-off hypothesis explains the negative relationship between the variables. Costly CSR activities do not create enough financial benefits to rule out the costs. The slack resource hypothesis explains that firms with good financial states will also invest in CSR because they can afford it. This hypothesis outlines that it is the CFP which causes CSR. The positive synergy hypothesis suggests that CSR causes CFP

which will create slack resources which can be reinvested in CSR. It suggests that the relationship is simultaneous and current investments in CSR will lead to even higher CSR through superior CFP in the future. Negative synergy hypothesis addresses the cycle from different perspective. It assumes that current CSR spending will lead to poor financial performance and therefore firms cannot afford to invest in CSR in the future. Managerial opportunism considers managers' personal objectives. It suggests that the amount of invested in CSR depends on how it affects managers' personal gains.

In the next section this thesis will take a step forward and investigate whether there is a significant relationship between CSR and CFP and does CSR really cause CFP.

## 5. METHODOLOGY AND DATA

The empirical part of this thesis studies how CSR impacts firm's financial performance. The companies in this study were selected from public companies which have their stocks listed in STOXX Europe 600. This index represents different market capitalization companies from 18 European countries. Although it would have been interesting to study all the 600 companies, this thesis limits the companies to 200 based on the availability of their CSR data.

### 5.1. Measures of financial performance

Financial ratios are an efficient way to measure firm's financial performance. Financial ratios are usually derived from firm's financial statement. Although accountants still have some degree of freedom in how to report earnings and book values, financial ratios can be still considered as a useful tool to evaluate and compare different companies. Financial ratios can be categorized based on the financial aspect which they measure. For example profitability measures indicate how well the company uses its resources to generate returns and leverage measures can be used to measure how much debt the company has. There is no single definition for the correct financial performance measure and the use of a specific ratio depends on the financial aspect which is the subject of an interest. (Brealey, Myers & Allen 2011.)

This thesis will measure financial performance with two different measures. First regression model measures financial performance with Return on assets (ROA). The second model uses Market to book ratio (M/B) as a measure for financial performance. Both of these ratios have their advantages and disadvantages which will be closely discussed in next sections.

#### 5.1.1. Return on assets

ROA is based on accounting information and therefore it can be referred as book rate of return. ROA is one of the most commonly used financial performance ratios in CSR literature (see for example Orlitzky 2003) and it is therefore selected as a depended variable in this thesis. Return on assets measures how effectively a firm uses its assets to generate return for investors. The formula for return on assets is often presented as follows:

$$(5) \quad \text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}}$$

Although ROA is a good tool for measuring internal profitability, it only reflects how well a company has succeeded in past. It does not necessarily imply that the same rate of return will be available in the future as well. (Brealey, Myers & Allen 2011) This is the reason why ROA is often criticized in academic literature as being a backward looking ratio measure for profitability.

### 5.1.2. Market to book ratio

The second financial performance measure selected in this thesis is Market to book ratio which is derived as follows:

$$(6) \quad \text{Market to book (M/B)} = \frac{\text{Firm's market capitalization}}{\text{Total assets-intangible assets and liabilities}}$$

Market to book ratio is more forward looking than account based measure like ROA. It brings together investors' expectations and accounting values and it is therefore categorized as a market based measure. The numerator, firm's market capitalization is calculated by multiplying firm's stock price by the number of shares outstanding. The denominator, total assets and liabilities can be derived from firm's financial statement. If the efficient market hypothesis that firm's share price reflects all available information including expectations related to future earnings can be considered as widely accepted then market to book ratio describes firm's current and real time financial performance perhaps more accurately than ROA. Although market to book ratio is more forward looking, it is also more sensitive to large scale market movements such as market crashes and might therefore provide a misleading picture of firm's financial performance. (Brealey, Myers & Allen 2011)

## 5.2. Measures of corporate social responsibility

In this thesis corporate social responsibility is measured by using firms' CSR score in Thomson Reuters Asset 4 ESG time series database. This database is updated annually and includes over 5000 publicly listed companies which are rated based on their CSR performance. CSR ratings are based on companies' sustainability reports and other publicly available information which are hand collected by over 100 analytics.

Objectivity and comparability is ensured by a multi-step verification process where every data point question goes through verification and quality control process. Detailed information links each data point to the source material for full transparency. (Thomson Reuters 2015)

Asset 4 ESG database has over 500 ESG data points which form the base for over 150 indicator scores. The ESG database includes also 18 category scores and 4 pillar scores which are normalized by using z-scoring. Scores are also equally weighted and benchmarked against other companies. In this thesis the overall CSR score is divided into five subsections based on companies Category and pillar scores. These five measures capture separately how the company ranks with environment, employees, human rights, customers and community.

Environment dimension consists of indicator scores which measure how committed management is in reducing resource use and lowering harmful emissions such as greenhouse gases. It also measures how the company succeeds in above-mentioned dimensions. Environment dimension also indicates if the company is committed to develop eco-efficient products and services. (Thomson Reuters 2015)

The second CSR dimension measures how well the company succeeds in maintaining and developing employees' rights, skills and opportunities. It also includes indicator scores which point out whether management is committed to improve employees' health and safety. (Thomson Reuters 2015)

Human rights category measures how company's management commitment and effectiveness towards respecting the fundamental human rights. Customer category reflects company's capacity to produce high quality products and developing customer relationships through reliable and accurate product information. Finally the community category indicates how the company succeeds in being a good corporate citizen by respecting business ethics in the environment where it operates. (Thomson Reuters 2015)

### 5.3. Control variables

The control variables are selected based on previous research. Lu et al. (2014) pointed out in their CSR-CFP review that the most frequently used control variables in the 84

studies they reviewed were size, industry, risk, capital structure and financial return. This thesis uses size, risk and industry to control firm specific features which are likely to have an impact on the dependent variable. Size is determined by firm's market capitalization. Risk is determined by company's debt to assets ratio which is calculated by dividing firm's total debt by its total assets. Finally industry specific features are captured by creating industry dummies for 19 different sectors.

#### 5.4. Data description

All the data for this thesis is collected from Thomson Reuters' data stream. Asset4 ESG research database is utilized for both financial and CSR data between years 2005 and 2013 ending up with 1800 firm year observations. Also industry classification is based on Asset4 ESG classification. More closely this classification is based on industry classification benchmark (ICB) system which was first launched by Dow Jones and FTSE group in 2005. The table below demonstrates how the selected companies are divided based on their operating sector.

On the next page table 1 presents how the studied companies are distributed per different industry sectors. We can observe from the table 1 that the biggest sectors are industrial goods and banks which together form almost 25 % of the companies. The rest of the companies are quite equally distributed. The studied companies are listed in Appedix.

**Table 1.** Number of firms per industry

<b>Industry</b>	<b>Number of firms</b>	<b>% of total</b>
Oil & Gas	9	4,5 %
Chemicals	11	5,5 %
Basic resources	5	2,5 %
Construction and material	8	4,0 %
Industrial goods and services	26	13,0 %
Automobiles & Parts	14	7,0 %
Foods & beverages	6	3,0 %
Personal & Household goods	10	5,0 %
Healthcare	8	4,0 %
Retail	9	4,5 %
Media	10	5,0 %
Travel & Leisure	6	3,0 %
Telecommunications	8	4,0 %
Utilities	13	6,5 %
Banks	23	11,5 %
Insurance	12	6,0 %
Real estate	7	3,5 %
Financial services	5	2,5 %
Technology	10	5,0 %
<b>Total</b>	<b>200</b>	<b>100,0 %</b>

Table 2 presents summary statistics for all the studied companies. These statistics are based on time series values per each firm. We can observe from the table 2 that most of the variables vary a lot because different companies in different industries have naturally individual features.

**Table 2.** Summary statistics for all firms

	<b>Mean</b>	<b>Median</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Std.dev</b>
<b>ROA %</b>	5,66	4,65	62,35	-35,92	6,53
<b>Market to book value</b>	2,27	1,75	39,90	0,10	2,29
<b>Risk (debt / assets)</b>	0,26	0,25	0,74	0,00	0,16
<b>Market capitalization x (1 M€)</b>	16554,75	8365,99	148470,40	224,91	20662,42
<b>Environment</b>	73,99	83,41	97,94	10,60	22,79
<b>Employee</b>	74,21	80,81	97,69	7,11	19,79
<b>Customer</b>	67,69	76,90	99,00	3,14	27,91
<b>Community</b>	63,54	70,60	96,94	2,80	28,19
<b>Human rights</b>	74,82	89,75	99,67	5,20	27,88

## 5.5. Methodology

Following Brammer et al. (2006) methodology the following two ordinary least squares panel regression models are applied to analyze the data:

$$(7) \quad ROA = \alpha + \beta_{1ENV} + \beta_{2EMP} + \beta_{3CUS} + \beta_{4COMM} + \beta_{5HUM} + \beta_{6CAP} + \beta_{7RISK} + \sum DUMMY_{IND}$$

$$(8) \quad M/B = \alpha + \beta_{1ENV} + \beta_{2EMP} + \beta_{3CUS} + \beta_{4COMM} + \beta_{5HUM} + \beta_{6CAP} + \beta_{7RISK} + \sum DUMMY_{IND}$$

ROA and M/B operate as depended variables which capture if CSR has any effect on company's financial performance. Independent variable CSR is divided into five separate dimensions and five independent variables  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  are formed. Two control variables  $\beta_5$  and  $\beta_6$  are market capitalization and risk. The third control variable is a dummy variable of firms' industry classification which is based on the ICB system. Dummy variable will take a value of 1 for each industry sector.

Next it is important to make a selection between fixed effects model and random effects model. Although the longitudinal variation of the data supports the selection of fixed effects model, the Durbin-Wu-Hausman test is also applied to indicate which of the models suits best for this research. As expected The Hausman specification test strongly supports the fixed effects model and therefore OLS fixed effects model is selected to analyze the data.

To test the lagged relationship between CSR and CFP the following OLS fixed effects models are applied to analyze the data:

$$(9) \quad ROA_{t+1} = \alpha + \beta_{1ENV} + \beta_{2EMP} + \beta_{3CUS} + \beta_{4COMM} + \beta_{5HUM} + \beta_{6CAP} + \beta_{7RISK} + \sum DUMMY_{IND}$$

$$(10) \quad M/B_{t+1} = \alpha + \beta_{1ENV} + \beta_{2EMP} + \beta_{3CUS} + \beta_{4COMM} + \beta_{5HUM} + \beta_{6CAP} + \beta_{7RISK} + \sum DUMMY_{IND}$$

These models are used to capture if CSR has a lagged effect on corporate financial performance. Firm's financial performance will take a value of t+1 in order to analyze how the CFP evolves when a lag of one year is taken into account. The final phase is to analyze whether there is causality between corporate financial performance and corporate social responsibility. For this purpose this research follows the method presented by Makni et al. (2009) and Granger causality test is applied to analyze the data.

## 6. FINDINGS

### 6.1. Multiple regression analysis results with disaggregated CSR measures

Table 3 shows the results on the concurrent relationship between corporate social responsibility and financial performance. In the analysis disaggregated measures of CSR and both market and account based measures are utilized. Column 1 shows the impact which CSR has on company's ROA and column 2 shows how CSR affects company's market to book value.

It is interesting to see that the relationship between CFP and CSR seems to be statistically significant when observing most of the CSR measures. Even more interesting is to observe that all the statistically significant associations between CSR and CFP are negative regardless of the firm financial performance measure. The most significant results can be found in the human rights category. The results clearly imply that companies which perform well in the human rights sector tend to perform poor financially when analyzing both market and account based measures. These results are significant at 1% level. Second significant result can be identified when analyzing CSR at employee level. At 5% significance level employee dimension seems to affect negatively to account based financial performance. However when measuring financial performance with market based measure no statistically significant relationship can be identified with financial performance and employee dimension. Third significant finding is that environment dimension of CSR seems to affect negatively to market based financial performance at 5% significance level but when the accounting based measure (ROA) is used no significant relationship can be observed. These findings are somewhat unexpected if considering the previous studies (see for example Orlitzky 2003 and Lu et al. 2014). The statistically significant findings presented in table 3 allow us to accept hypotheses  $H_1$ . These findings provide also evidence that the direction of the relationship is negative. These findings are in line with Makni et al. (2009) and with Brammer et al. (2006)

**Table 3:** Financial performance and disaggregated measures of corporate social responsibility**Panel: Fixed effects OLS method**

	<b>ROA</b>	<b>M/B</b>
<b>Customer</b>	0.0120 (0.792)	0.0089 (0.781)
<b>Community</b>	0.0594 (0.148)	-0.0496 (0.087)*
<b>Environment</b>	-0.1199 (0.138)	-0.1182 (0.039)**
<b>Employee</b>	-0.2191 (0.031)**	-0.0227 (0.751)
<b>Human rights</b>	-0.2453 (0.000)***	-0.1601 (0.000)***
<b>Size</b>	0.0200 (0.3969)	0.1195 (0.000)***
<b>Risk</b>	-0.0911 (0.001)***	-0.0467 (0.012)**
Automobiles & Parts	3.339935	0.885872
Banks	2.105216	0.425568
Basic resources	3.441995	0.351813
Chemicals	3.636624	0.970004
Construction and material	3.604529	1.015150
Financial services	2.658417	0.216852
Foods & beverages	3.882646	1.257491
Healthcare	3.303006	0.922183
Industrial goods and services	3.341371	1.048509
Insurance	2.254082	0.285671
Media	3.722021	1.058643
Oil and gas	3.393513	0.802377
Personal & Household goods	3.755766	1.236717
Real estate	3.231071	0.862002
Retail	3.821053	1.029135
Technology	3.866171	0.964521
Telcommunications	3.541059	0.926961
Travel & Leisure	3.101080	0.704259
Utilities	3.552222	0.843276
R-squared	0.272539	0.184154
Adjusted R-squared	0.261457	0.171717

P-values are presented in parantheses. Asterix denotes statistical significance at the 1%(\*\*\*) , 5%(\*\*) and 10%(\*) –level.

In order to study how the relationship between CSR and CFP evolves through time the time series data is divided into two separate periods. The objective is also to draw a line to year 2008 when the great financial crisis hit Europe. There is a possibility that this event can cause results to be misleading and therefore it is interesting to study whether the CSR-CFP relationship changes between the two time periods. Therefore first period includes only observations from four years between 2005 and 2008. Second period includes observations from five years between 2009 and 2013. Table 5 shows results from these two time periods

As we can observe from table 5 customer sector is the only significant CSR dimension

which turned other way around between these two time periods. When analyzing market based financial performance, companies with high customer responsibility values tend to also perform financially well in between years 2005 and 2008. This relationship turned to negative between years 2009 and 2013. One possible explanation for this can be that M/B values declined for most of the companies between years 2009 and 2013 because of the great financial crisis but customer responsibility index values continued to develop positively. Same explanation might be the reason why the relationship between community dimension and market based financial performance changed to statistically significant and negative between years 2009 and 2013 while it was statistically insignificant between years 2005 and 2008. Table 5 also strengthens the previous results which identified that human rights category has statistically significant negative effect on company's financial performance.

It is also interesting to notice that some of the CSR dimensions had stronger negative effect on firms' financial performance between years 2005 and 2008 than between years 2009 and 2013. Dimensions such as environmental and employee had statistically significant negative impact on company's market to book value between years 2005 and 2008 but this relationship became statistically insignificant when studying the second time frame. One reason for this change might be that society's attitude toward CSR has changed and investors are nowadays more attracted by companies which operate in a socially responsible manner. Although some of the reasons mentioned above explain some possible errors related to the findings, these results also support the hypotheses  $H_1$  as well as results presented in table 2.

**Table 4:** Financial performance and corporate social responsibility within two different time periods**Panel: Fixed effects OLS method**

	<b>ROA (2005-2008)</b>	<b>ROA (2009-2013)</b>	<b>M/B (2005-2008)</b>	<b>M/B (2009-2013)</b>
<b>Customer</b>	-0.0208 (0.717)	0.0387 (0.588)	0.1028 (0.013)**	-0.0824 (0.089)*
<b>Community</b>	0.0617 (0.239)	0.0761 (0.232)	-0.0072 (0.848)	-0.0991 (0.022)**
<b>Environment</b>	-0.0688 (0.512)	-0.0355 (0.773)	-0.1326 (0.079)*	0.0235 (0.778)
<b>Employee</b>	-0.0877 (0.512)	-0.2703 (0.0765)*	-0.1755 (0.067)*	0.1290 (0.212)
<b>Human rights</b>	-0.2505 (0.001)***	-0.2384 (0.005)***	-0.1370 (0.012)**	-0.1493 (0.011)**
<b>Size</b>	-0.0176 (0.593)	0.0049 (0.884)	0.1154 (0.000)***	0.0840 (0.000)***
<b>Risk</b>	-0.1058(0.001)***	-0.0995 (0.0056)***	-0.0521 (0.054)*	-0.0532 (0.029)**
Automobiles & Parts	3.157718	2.973952	1.071463	0.353492
Banks	2.192663	1.532301	0.814596	-0.275449
Basic resources	2.862595	3.416734	0.570424	-0.155622
Chemicals	3.414544	3.319943	1.185382	0.461995
Construction material	3.575478	3.127237	1.130567	0.556223
Financial services	2.723795	2.338966	0.292567	-0.140597
Foods and beverages	3.775314	3.557654	1.385648	0.859304
Healthcare	3.219766	2.947970	0.956041	0.575720
Industrial goods & services	3.051720	3.093672	1.285173	0.523450
Insurance	2.128624	1.912343	0.652861	-0.337348
Media	3.657718	3.301120	1.329607	0.500329
Oil and gas	3.386546	2.921070	1.126362	0.202940
Personal & Household goods	3.545716	3.456369	1.414084	0.753767
Real estate	3.238897	2.823040	1.070305	0.282302
Retail	3.571316	3.514117	1.213381	0.520027
Technology	3.609085	3.624192	1.136671	0.475678
Telecommunications	3.427609	3.177326	1.073391	0.457366
Travel & Leisure	2.978641	2.691214	1.038962	0.101051
Utilities	3.428285	3.170550	1.213297	0.202023
<b>R-squared</b>	0.272813	0.298827	0.162312	0.242164
<b>Adjusted R-squared</b>	0.247909	0.279020	0.133625	0.220732

P-values are presented in parantheses. Asterix denotes statistical significance at the 1%(\*\*\*) , 5%(\*\*) and 10%(\*) –level.

## 6.2. Lagged multiple regression analysis with disaggregated CSR measures

Some previous studies (see for example Lu et al. 2014) have found CSR-CFP relationship to be lagged. Investing in CSR might translate into financial performance after some time has passed. Table 6 shows what kind of impact CSR has on financial performance when one year lag is applied into M/B and ROA values. The results are in line with the previous ones presented in this thesis. As like in previous tables human

rights dimension seems to affect financial performance negatively even though one year lag model is applied. The effect is slightly smaller but still statistically significant at 1%. It is relevant to notice that categories like environment, employee and community were statistically significant and negative in previous tables but when one year lag is applied these dimensions become statistically insignificant. Therefore it might be possible that the relationship between corporate social responsibility and financial performance is lagged but one year lag is too short time interval to make reliable conclusions. Nevertheless, the statistically significant results considering the relationship between human rights and CFP support hypotheses  $H_2$ . This indicates that the relationship between human rights and financial performance is lagged as well as simultaneous (see table 2). Although these results are supportive, no unanimous conclusions can be made because other CSR dimensions fail to provide significant results.

**Table 5:** Lagged relationship between financial performance and corporate social responsibility

**Panel: Fixed effects OLS method**

	<b>ROA (t + 1)</b>	<b>M/B (t + 1)</b>
<b>Customer</b>	0.0092 (0.850)	-0.0104 (0.767)
<b>Community</b>	0.0041 (0.923)	-0.0301 (0.344)
<b>Environment</b>	-0.1450 (0.095)*	-0.0791 (0.218)
<b>Employee</b>	-0.1246 (0.247)	0.0201 (0.799)
<b>Human rights</b>	-0.2209 (0.000)***	-0.1302 (0.004)***
<b>Size</b>	0.0218 (0.3879)	0.0521 (0.005)***
<b>Risk</b>	-0.0807 (0.004)***	-0.0520 (0.013)**
Automobiles & Parts	3.232612	0.944509
Banks	1.928630	0.528701
Basic resources	3.299522	0.418906
Chemicals	3.479850	1.085808
Construction and material	3.415618	1.115437
Financial services	2.472893	0.384800
Foods & beverages	3.726269	1.448577
Healthcare	3.160600	1.040948
Industrial goods and services	3.232721	1.166545
Insurance	2.195809	0.401035
Media	3.572368	1.131021
Oil and gas	3.198466	0.906587
Personal & Household goods	3.552194	1.343039
Real estate	3.106351	0.947260
Retail	3.658165	1.160694
Technology	3.738894	1.075498
Telcommunications	3.330269	1.039630
Travel & Leisure	3.018929	0.814167
Utilities	3.355907	0.931508
R-squared	0.273185	0.164901
Adjusted R-squared	0.260018	0.149761

P-values are presented in parantheses. Asterix denotes statistical significance at the 1%(\*\*\*) , 5%(\*\*) and 10%(\*) –level.

When CSR is divided into multiple dimensions multicollinearity might become an issue and compromise the research results. Correlation matrix in table 7 strengthens the multicollinearity assumption and confirms that community, customer, employee, environment and human rights dimensions are highly correlated with each other.

**Table 6:** Correlation matrix

	ROA	M/B	Size	Risk	Community	Customer	Employee	Environment	Human rights
ROA	1								
M/B	0.36	1							
Size	-0.05	0.09	1						
Risk	-0.08	-0.08	-0.03	1					
Community	-0.07	-0.09	0.28	0.11	1				
Customer	-0.05	-0.04	0.22	0.07	0.48	1			
Employee	-0.09	-0.05	0.32	0.09	0.59	0.54	1		
Environment	-0.06	-0.04	0.35	0.10	0.53	0.53	0.75	1	
Human rights	-0.09	-0.07	0.34	.0.09	0.50	0.47	0.63	0.57	1

### 6.3. Regression analysis results with aggregated CSR measure

In order to avoid the possible problems that multicollinearity causes, one more OLS regression model is applied to analyze the data. In this model the five independent variables B1, B2, B3, B4 and B5 are replaced with only one CSR measure. This CSR measure is firm and time specific average of the disaggregated values.

$$(11) \quad CFP = \alpha + \beta_{1CSR} + \beta_{2CAP} + \beta_{3RISK} + \sum DUMMY_{IND}$$

Table 8 shows the results when regression model (11) is applied. These results strengthen the previous findings even more. Performing well in CSR seems to have strong and statistically significant negative impact on firm's financial performance when using both account and market based measures. This finding increases the reliability of the acceptance of hypotheses  $H_1$ .

**Table 7:** Financial performance and aggregated measure of corporate social responsibility**Panel: Fixed effects OLS method with aggregated CSR measure**

	ROA	M/B
<b>CSR</b>	-0.470382 (0.000)**:	-0.417974 (0.000)***
<b>Size</b>	0.006461 (0.781)	0.131097 (0.000)***
<b>Risk</b>	-0.090785 (0.000)**:	-0.033843 (0.056)*
Automobiles & Parts	3.214132	1.109350
Banks	2.054204	0.632915
Basic resources	3.375854	0.584618
Chemicals	3.538333	1.218333
Construction and material	3.536956	1.258696
Financial services	2.570969	0.386153
Foods & beverages	3.834959	1.403192
Healthcare	3.296373	1.197561
Industrial goods & services	3.258989	1.279158
Insurance	2.212766	0.503976
Media	3.608631	1.280600
Oil and gas	3.286703	1.014937
Personal & Household goods	3.641393	1.470456
Real estate	3.075799	0.983817
Retail	3.743875	1.265261
Technology	3.771303	1.227395
Telecommunications	3.451612	1.164041
Travel & Leisure	3.012252	0.916484
Utilities	3.461607	1.069019
R-squared	0.264232	0.193693
Adjusted R-squared	0.254839	0.184154

P-values are presented in parantheses. Asterix denotes statistical significance at the 1%(\*\*\*), 5%(\*\*) and 10%(\*\*\*) –level.

#### 6.4. Granger causality test

The Granger causality test was based upon 1400 data points and was performed with a lag value of 1. Target is to identify whether there is causality between CSR and CFP. Because of the possible multicollinearity problem only the aggregated measure of CSR was used in this analysis. The results of Granger causality test are shown in table 9. These results let us to reject the hypotheses that CSR does not Granger cause ROA at 5% significance level but we fail to reject the hypotheses that ROA does not Granger cause CSR. Based on this result we can assume that the Granger causality runs only one way from CSR to ROA. When exploring the Granger causality between M/B and CSR we fail to reject both of the hypotheses. Based on the results in table 9 we can accept  $H_3$  only when using account based measures. However we cannot accept  $H_3$  when using

market based measure for firm's financial performance because p-values are not statistically significant.

**Table 8:** Granger causality test

Null Hypothesis:	Obs	F-Statistic	Prob.
ROA does not Granger Cause CSR	1400	0.24616	0.6199
CSR does not Granger Cause ROA		5.94253	0.0149
M/B does not Granger Cause CSR	1400	0.30956	0.5780
CSR does not Granger Cause M/B		0.06811	0.7941

## 7. SUMMARY AND CONCLUSIONS

The world we live in is developing maybe faster than ever before and with the help of network solutions information is easily available for everyone. Therefore companies' stakeholders are usually well aware of the effects of their choices. This has led to a business environment where brand image and corporate social responsibility play an important role. Such negative publicity like presented in the Volkswagen case can cause serious damage to company's financial performance. Motivated by this the purpose of this study was to find out whether there is a link between corporate social responsibility and firm's financial performance. Because corporate social responsibility actions are often costly it is important to find out if it pays off to invest in them or does it just cause a conflict between shareholders' interests and other stakeholders' interests. 200 randomly selected publicly listed European companies were analyzed in this thesis to study how CSR impacts on CFP and how this relationship is formed.

In chapter 3 many theories and motives behind CSR was presented. Basically these theories can be divided into instrumental, political, integrative and ethical theories. Each of them explain CSR from different angles and justify spending in CSR with different motives. In the other end there are ethical theories which focus on the soft side of CSR and explain it with ethical norms and obligations. The opposite of ethical theories are instrumental theories which explain CSR with the help of financial benefits. Both of these aspects provide interesting motives explaining CSR.

Although the ethical motive behind CSR is important, the target of this thesis was to focus on the financial side. Therefore chapter 4 builds up different theoretical frameworks around the CSR-CFP relationship. This chapter gives a clear understanding why previous research within this topic has presented different results. The CSR-CFP relationship can be seen in several ways depending on the angle how it is explained. The relationship is not straightforward and can be very different in different markets, industries and even in different time intervals. It can be concluded that based on the previous studies it is impossible to present universally accepted theoretical framework which provides fundamental truth about CSR-CFP relationship. It might be positive, negative, lagged or time evolving. The causal relationship between the variables can also be different. CSR might lead CFP or CFP might lead CSR. The beginning of the cycle is challenging to identify.

By utilizing panel data from European listed companies between years 2005 and 2013

and multiple OLS regression model this thesis shows evidence which indicates that CSR has statistically significant negative effect on financial performance. When disaggregated measures of CSR are utilized this thesis indicates that human rights dimension has the most significant negative effect on financial performance. This relationship is significant when using both market and account based measures of financial performance. When aggregated measure of CSR is applied to analyze the data, the results indicate significant negative relationship between the variables as well. Even when lagged financial measures are utilized the relationship remains negative. This indicates that investing in CSR does not pay off and it has negative impact on return on assets and market to book value. However when Granger causality test is applied the results are only significant between ROA and CSR and no causality can be identified between CSR and M/B. Therefore universal conclusions regarding causality cannot be made.

It can be concluded that CSR-CFP relationship is negative. This can be explained with the nature of CSR. It is possible that only CSR scandals like the Volkswagen example have negative effect on financial performance. There might be no straightforward financial benefits to invest in CSR more than society is requiring and the best CSR strategy is to keep company's CSR at adequate level. If CSR performance goes over the optimal level it might not bring any short term financial benefits. Other possible explanation regarding the negative relationship can be found in the nature of the variables. For example the CSR scandals which gain wide publicity and harm financial performance form only a small part of firm's overall CSR performance. Therefore company's performance in CSR measures remains relatively high but financial ratios can drop dramatically. CSR indices are often sticky and they might fail to capture the most significant changes which have impact on stakeholders' attitudes towards the company. As well as CSR measures also financial ratios have their drawbacks. For example ROA which was utilized in this study is backward looking. Therefore costly CSR investments can cause ROA to develop negatively in the early years. The issue in this thesis is that only 1 year lag was utilized while it might take several years until CSR investments provide financial benefits which can be measured with ROA and therefore the relationship seems to be negative. Financial ratios also tend to measure the whole picture and it is challenging to separately analyze which part of the financial performance is caused by CSR.

Problems related to CSR measures offer opportunities for future research. It would be interesting to investigate separately how negative CSR events like scandals affect

financial performance and whether positive CSR events have any impact on financial performance. This could be done for example with the event study method and the systematic problems related to sticky CSR measures could be solved.

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**APPENDIX 1. Exact definitions for CSR measures (Thomson Reuters 2015)**

<b>Environmental</b>	Emission Reduction	The emission reduction category measures a company's management commitment and effectiveness towards reducing environmental emission in the production and operational processes. It reflects a company's capacity to reduce air emissions (greenhouse gases, F-gases, ozone-depleting substances, NOx and SOx, etc.), waste, hazardous waste, water discharges, spills or its impacts on biodiversity and to partner with environmental organisations to reduce the environmental impact of the company in the local or broader community.
	Resource Reduction	The resource reduction category measures a company's management commitment and effectiveness towards achieving an efficient use of natural resources in the production process. It reflects a company's capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
	Product Innovation	The product innovation category measures a company's management commitment and effectiveness towards supporting the research and development of eco-efficient products or services. It reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed, dematerialized products with extended durability.
<b>Employee</b>	Diversity and Opportunity	The workforce/diversity and opportunity category measures a company's management commitment and effectiveness towards maintaining diversity and equal opportunities in its workforce. It reflects a company's capacity to increase its workforce loyalty and productivity by promoting an effective life-work balance, a family friendly environment and equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation.
	Employment Quality	The workforce/employment quality category measures a company's management commitment and effectiveness towards providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase its workforce loyalty and productivity by distributing rewarding and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs and maintaining relations with trade unions.
	Health & Safety	The workforce/health & safety category measures a company's management commitment and effectiveness towards providing a healthy and safe workplace. It reflects a company's capacity to increase its workforce loyalty and productivity by integrating into its day-to-day operations a concern for the physical and mental health, well-being and stress level of all employees.
	Training and Development	The workforce/training and development category measures a company's management commitment and effectiveness towards providing training and development (education) for its workforce. It reflects a company's capacity to increase its intellectual capital, workforce loyalty and productivity by developing the workforce's skills, competences, employability and careers in an entrepreneurial environment.
<b>Human rights</b>	Human rights	The society/human rights category measures a company's management commitment and effectiveness towards respecting the fundamental human rights conventions. It reflects a company's capacity to maintain its license to operate by guaranteeing the freedom of association and excluding child, forced or compulsory labour.
<b>Customer</b>	Customer and Product Responsibility	The customer/product responsibility category measures a company's management commitment and effectiveness towards creating value-added products and services upholding the customer's security. It reflects a company's capacity to maintain its license to operate by producing quality goods and services integrating the customer's health and safety, and preserving its integrity and privacy also through accurate product information and labelling.
<b>Community</b>	Community	The society/community category measures a company's management commitment and effectiveness towards maintaining the company's reputation within the general community (local, national and global). It reflects a company's capacity to maintain its license to operate by being a good citizen (donations of cash, goods or staff time, etc.), protecting public health (avoidance of industrial accidents, etc.) and respecting business ethics (avoiding bribery and corruption, etc.).

**APPENDIX 2.** List of the studied companies

DEUTSCHE BOERSE  
INDITEX  
FRAPORT  
KPN KON  
TECHNIP  
RENAULT  
COFINIMMO  
NOKIAN RENKAAT  
CREDIT AGRICOLE  
ASML HOLDING  
ANDRITZ  
LUXOTTICA  
PADDY POWER  
ENAGAS  
BANCO DE SABADELL  
JCDECAUX  
TENARIS  
UNIONE DI BANCHE ITALIAN  
ENEL  
PROXIMUS  
DEUTSCHE POST  
INFINEON TECHS.  
AIRBUS GROUP  
VEOLIA ENVIRONNEMENT  
SES FDR  
ANHEUSER-BUSCH INBEV  
TERNA RETE ELETTRICA NAZ  
MEDIASET ESPANA  
FERROVIAL  
LANXESS  
NESTE  
RAIFFEISEN BANK INTL.  
ORION  
HERMES INTL.  
BNP PARIBAS  
MTU AERO ENGINES  
ENGIE  
EDF  
REPSOL YPF

JERONIMO MARTINS  
UNIPOL GRUPPO FINANZIARI  
RANDSTAD HOLDING  
BANCA POPOLARE DI MILANO  
METSO  
ING GROEP  
CHRISTIAN DIOR  
ACS ACTIV.CONSTR.Y SERV.  
UPM-KYMMENE  
BANCA MONTE DEI PASCHI  
RED ELECTRICA CORPN.  
UNITED INTERNET  
QIAGEN  
POSTNL  
BANCO POPOLARE  
ALSTOM  
STMICROELECTRONICS  
CNP ASSURANCES  
K + S  
STADA ARZNEIMITTEL  
DAIMLER  
FORTUM  
ELISA  
ENDESA  
CAP GEMINI  
BANCO SANTANDER  
NOKIA  
ATOS  
SAINT GOBAIN  
ZARDOYA OTIS  
ALCATEL-LUCENT  
ACKERMANS & VAN HAAREN  
SOCIETE GENERALE  
TF1 (TV.FSE.1)  
BANCO COMR.PORTUGUES  
BANKINTER  
OMV  
ABERTIS INFRAESTRUCTURAS  
VINCI  
FONCIERE DES REGIONS  
SAMPO  
KESKO

STORA ENSO  
KONE  
WARTSILA  
SCOR SE  
KLEPIERRE  
BBV.ARGENTARIA  
DSM KONINKLIJKE  
ALLIANZ  
BASF  
BAYER  
BMW  
COMMERZBANK  
CONTINENTAL  
DEUTSCHE BANK  
HENKEL PREF.  
LINDE  
DEUTSCHE LUFTHANSA  
MAN  
GEA GROUP  
RWE  
SIEMENS  
THYSSENKRUPP  
E ON  
ENI  
IMMOFINANZ  
HELLENIC TELECOM.ORG.  
DASSAULT SYSTEMES  
MEDIASET  
PORSCHE AML.HLDG.  
HEIDELBERGCEMENT  
BEIERSDORF  
BILFINGER BERGER  
MUENCHENER RUCK.  
RHEINMETALL  
ADIDAS  
MERCK KGAA  
FRESENIUS MED.CARE  
DEUTSCHE TELEKOM  
ORANGE  
EDP ENERGIAS DE PORTUGAL  
VOLKSWAGEN PREF.  
SAP

HANNOVER RUCK.  
ERSTE GROUP BANK  
RYANAIR HOLDINGS  
ARCELORMITTAL  
KERRY GROUP  
ROYAL DUTCH SHELL  
HEINEKEN  
UNILEVER CERTS.  
SAIPEM  
BANK OF IRELAND  
FIAT CHRYSLER AUTOS.  
CRH  
IMERYS  
MICHELIN  
TOTAL  
SOLVAY  
AKZO NOBEL  
PEUGEOT  
DANONE  
AHOLD KON.  
LVMH  
UCB  
SBM OFFSHORE  
MEDIOBANCA BC.FIN  
CARREFOUR  
VALEO  
AEGON  
KBC GROUP  
VIVENDI  
CASINO GUICHARD-P  
EURAZEO  
AIR LIQUIDE  
TELECOM ITALIA  
ASSICURAZIONI GENERALI  
L'OREAL  
WERELDHAVE  
BOUYGUES  
PERNOD-RICARD  
THALES  
KERING  
WENDEL  
VALLOUREC

SAFRAN  
NATIXIS  
AIR FRANCE-KLM  
AGEAS  
UMICORE  
DELHAIZE GROUP  
ACCOR  
UNICREDIT  
INTESA SANPAOLO  
UNIPOLSAI  
TELEFONICA  
GAS NATURAL SDG  
GBL NEW  
MAPFRE  
BIC  
UNIBAIL-RODAMCO  
WOLTERS KLUWER  
PHILIPS ELTN.KONINKLIJKE  
PIRELLI  
FINMECCANICA  
EIFFAGE  
ESSILOR INTL.  
AXA  
PUBLICIS GROUPE  
GECINA  
AMER SPORTS  
COLRUYT  
KINGSPAN GROUP  
RELX  
SANOFI  
ZODIAC AEROSPACE  
SODEXO  
SCHNEIDER ELECTRIC SE  
IBERDROLA  
LAGARDERE GROUPE