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Corporate social responsibility and financial performance: the role of corporate governance

Evidence from the Netherlands

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ABSTRACT

This study investigates the role of corporate governance in the relationship between CSR and financial performance in the Dutch context. Two board characteristics (board size and board independence), and three ownership structures (ownership concentration, institutional ownership, and management ownership) were studied. Based on a sample of 75 firms listed on the AEX, AMX, and AScX index from 2012 to 2016, I find a positive effect of CSR on firm performance. Moreover, I find that the presence of more independent directors on the board strengthens the positive impact of CSR on firm performance. On the other hand, a larger board size, a concentrated ownership, and a higher management ownership in the company do not seem to have any effect on the CSR – firm performance relationship. Finally, some researchers have argued about endogeneity issues when one studies the link between CSR and financial performance. As such, additional analyses using a lagged CSR variable to control for endogeneity were conducted and results were consistent with those of the baseline analysis, suggesting that endogeneity does not play a major role in the relationship between CSR and financial performance.

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1- Introduction

The topic of corporate social responsibility (CSR) has received growing interest among scholars and practitioners alike over the last decades. Corporations have traditionally been viewed as self-centered and profit maximizing entities, while governments assumed the role of improving the living conditions of the population. However, with the advent of social activism and the emergence of new expectations, other facets of corporate performance beside financial results are being considered. In order to meet expectations and differentiate themselves from the competition, companies started going above and beyond what is legally required of them and further engaging in CSR activities.

Various researchers have examined different aspects of CSR including how it affects firm performance. Some argue that the only responsibility of companies is to obey all laws and maximize profits for their shareholders. As such, investment in CSR would be a waste of company's resources and a distraction from the ultimate goal of profit maximization (Friedman, 1970). Others claim that CSR investments actually create a positive attitude towards the company, thus leading to increased sales, loyal customers and so on, which in turn leads to improved firm performance (Freeman, 1984). The empirical evidence in this aspect has been inconclusive. While some studies found a negative relationship between CSR and firm performance, others found a positive relationship and still others no relationship at all.

Many scholars sought to explain these seemingly contradictory results in the literature. Waddock et al. (1997) argue that there is a simultaneous relationship between corporate social performance (CSP) and firm performance or what they call a "virtuous circle". In other words, better CSP improves firm performance but also better financial performance results in improved CSR. Barnett and Salomon (2012) posit that the relationship is U-shaped because as firm incur costs in CSR activities, profits decrease, but in the long-run, the benefits earned from these activities — benefits such as improved stakeholders relations — will transform into positive financial returns that will outweigh the cost of CSR investments. McWilliams and Siegel (2000) attempted to explain the contradictory findings by including additional variables. They claimed that these omitted variables may affect the relationship between CSR and firm performance. Based on that reasoning, Surroca et al. (2010) introduced the variable intangible resources and examined the role it plays in the connection between CSR and financial performance. They found that corporate responsibility performance (CRP) influences the development of intangibles pertaining to innovation, human capital, culture and reputation, which then increases financial performance. They also recognized the need to develop new models that include additional variables in order to clarify the CSP – firm performance interface. In this regard, some researchers also included corporate governance elements and examined their impact on the CSR – firm performance relationship.

Corporate governance and its effects on CSR and firm performance have received increasing interest among scholars. Jo and Harjoto (2011) investigated the effect of corporate governance and monitoring mechanisms on the choice of CSR engagement of firms and on the firm value. They observe that both external and internal corporate governance stimulate CSR engagement and that CSR engagement improves firm value. Even though Jo and Harjoto (2011) established the importance of CSR in the corporate governance-firm performance relationship, they did not determine the causality among CSR, corporate governance, and firm value. They suggested that more research needs to be done at the intersection of CSR-CG. Also, Jain and Jamali (2016) conducted a wide scope review of the literature to assess the impact of corporate governance mechanisms at the individual, group, and firm levels on firm CSR outcomes. In doing so, they took a step in unraveling the relationships that lie at the intersection of CG and CSR, and how this affects firm performance. However, they also invited more research to refine the general understanding of the CG-CSR-firm performance interface. In fact, there have not been many studies analyzing the three concepts altogether (Johnson and Greening, 1999; jo and Harjoto, 2011; Arora and Dharwadkar, 2011). Following these suggestions, it might be interesting to take a closer look at the role of corporate governance in the relationship between CSR and financial performance and this thesis undertakes one such investigation.

The role of management is to make decisions that are in the best interest of the company and its shareholders, however, some managers may have the urge to satisfy their own self-interests, and invest in CSR activities for personal reasons. Agency theory stipulates that the role of the board of directors is to monitor management and ensure that it engages in value-creating and not value-destroying behavior (Schleifer and Vishny, 1997). Drawing upon the agency theory, we can argue that a good corporate governance framework can prevent management from devoting valuable resources to unprofitable CSR activities. For instance, Cornett et al. (2008) found that a board dominated by independent directors is more capable of limiting the company's managers from engaging in value-destroying investments. Moreover, Barnett and Salomon (2012) claim that firms engaging in CSR will build credibility towards their stakeholders and benefits from CSR can ensue when firms exploit the improved relationship with their stakeholders. However, the credibility of the companies engaged in CSR may be reduced if they exhibit poor corporate governance. In fact, as Davidson et al. (2005) found, a person holding both the positions of CEO and chairman of a firm is more likely to manipulate earnings to his own benefit.

These evidence hint that corporate governance mechanisms may play a moderating role in the CSR – firm performance relationship. However, only a few studies have examined this matter and yet failed to include different aspects of corporate governance. Peng and Yang (2014) investigated the moderating effect of ownership concentration on the link between CSR and financial performance based on a sample of Taiwanese companies. They found that the difference between cash flow rights and control rights of the largest block holders negatively moderates the relationship between CSR and short-term as well as

long-term financial performance. Alshammari (2015) examined the moderating role of reputation and ownership structure in the CSR – firm performance relationship and suggested that institutional ownership and corporate reputation can, in fact, be expected to have a positive influence on the extent to which firms benefit from their CSR investments.

Building up on this, this study aims to incorporate a wider spectrum of corporate governance mechanisms including board structure as well as ownership structure mechanisms. The following research question is investigated:

Does corporate governance moderate the effect of CSR on firm performance?

This study will focus on continental Europe, and more specifically the Netherlands because of its unique two-tier board structure. Empirical studies regarding corporate governance were undertaken mostly in Anglo-Saxon countries, such as the USA and the UK. Board characteristics are hardly researched in the Dutch context (van Ees et al., 2003). Unlike the Anglo-American system, the board structure in the Netherlands is characterized by a formal separation of executive and supervisory responsibilities. The two-tier board structure consists of a management board and a supervisory board. The management board, which comprises the firm's top executives, manages the company and is responsible for achieving the company's goals, strategies, and performance. The supervisory board, which comprises independent non-executive directors, supervises the policies of the management board and the general affairs of the company, and support the management board by providing advice. In undertaking this research, we hope to help in clarifying the CSR-CG interface and its impact on firm performance, and also fill the gap in the Dutch literature.

This thesis is organized as follows. Chapter I provides an overview of the main concepts and the goal of this study. Chapter II reviews prior conceptual and empirical literature related to CSR and corporate governance. Chapter III formulates relevant hypotheses based on the theories discussed and on empirical evidence. Chapter IV presents the methodology and describes the variables involved in this research. Chapter V reports all empirical results, and in the final chapter, the results are discussed as well as limitations and recommendations for further research.

2- Literature review

2.1- Corporate social responsibility

Companies today are realizing the relevance of moral practices in their businesses, taking into consideration the effects of their operations on people, environment, and society. As such, a multitude of firms has implemented CSR at the forefront of their business strategies. CSR is a multidimensional concept and has received various definitions. McWilliams and Siegel (2000) define CSR as "*actions that appear to further some social good, beyond the interest of the firm and what is required by law*". The Cambridge dictionary refers to it as "*the idea that a company should be interested in and willing to help society and the environment as well as be concerned about the products and profits it makes*". These definitions, although numerous, all point to the same idea: the necessity for firms to go beyond their goal of value maximization to also include moral obligations. These obligations can be grouped into four hierarchical categories, also known as Carroll's CSR pyramid (Caroll and Shabana, 2010). The idea is that businesses have to fulfill the lower-level responsibilities first before moving up to the higher ones.

The first category involves the economic responsibility of the company. That is to say, a company's main concern is to make profits because without profits, there is no money available to invest in other CSR activities and the company would simply perish. The second category concerns the legal responsibilities. A firm adhering to CSR must follow rules and regulations, including labor laws, environmental laws, and tax laws. Having met these two fundamental requirements, a firm can then move to the next category, which is the ethical responsibility. Ethical firms act rightfully even if the law does not oblige them to. For instance, a firm can choose to pay higher wages to its employees, or choose to hire disabled people even if there are no laws requiring the firm to act in such a way. Finally, when a firm engaging in CSR has met its economic, legal and ethical responsibilities, it can then undertake philanthropic responsibilities. These include activities that are not necessarily under the scope of the firm's business but yet can benefit society as a whole. For example, a company operating in poor rural areas can choose to build schools for the local population and thus participate in the development of the community.

Below is an illustration of Caroll's CSR Pyramid:

Figure 1: Caroll's CSR Pyramid (Caroll, 2010)

2.2- Major theoretical perspectives of CSR

CSR is prominent not only in businesses but also among scholars. In fact, the topic of CSR and its effects on firm performance has been extensively studied over the past years, yet the results are still inconclusive. Two perspectives related to CSR were developed.

2.2.1- Shareholder's theory

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

The shareholder's theory of CSR was first elaborated by Milton Friedman in his New York Times Magazine article, which set the stage for the debate.

This theory claims that a business should solely focus on maximizing value for its shareholders. Any other goal is considered trivial and should not be pursued by management. Proponents of this theory argue that it is the role of the government and

non-profit organizations to solve social problems. Investing in CSR is viewed as a waste of business resources as less money would reach shareholders. Also, it would be difficult for a business to engage in a CSR activity that will satisfy all shareholders equally. For example, the business can choose to donate to an animal protection charity, but not all shareholders are advocators of this cause. Instead, the company should focus on making as much profits as possible, distribute this profit to shareholders, who then can choose to invest the money according to their preferences. Friedman (1970) also states that managers who engage in CSR do it for personal benefits such as better reputation and higher compensation, and this, at the expense of the shareholders.

Based on the shareholders view, the relationship between CSR and financial performance was expected to be negative in the early research of CSR. However, there is little evidence supporting the shareholder theory as only a few studies have found a negative relationship. Davis (1973) argues that managers are directed towards finance and operations but are not so well-versed in making socially oriented decisions, and so businesses may lack the expertise to adequately invest in CSR. Aupperle et al. (1985) posit that a business investing in CSR will be at a competitive disadvantage, and as result will experience a decrease in financial performance. However, after completing their analysis, they found no significant relationship.

Since then, much more research investigating the relationship between Corporate Social Responsibility and financial performance have been conducted and a great number of them found a positive impact.

2.2.2- Stakeholder theory

The stakeholder theory of CSR was introduced by Freeman (1984), who offered the counter-argument to the shareholder theory. Freeman (1984) defines a stakeholder as: "*any individual or group that can affect or be affected by a company's purpose".*

The stakeholder theory suggests that a business has the responsibility to not only seek profit but also satisfy the interests of multiple stakeholders on which the business relies for long-term survival. These stakeholders include the business's customers, employees, investors, suppliers, government agencies, local community, and failure to take into account their different interests can harm the business ability to operate. For instance, a company whose employees lack the motivation to go to work or give their best to improve the company, is likely to fail; or a business that pollutes the environment, ignores local customs and laws, and does not take into consideration the needs of the local community, is also likely to fail; or yet, a business that does not create value for its investors is again likely to fail. As such, the stakeholder theory posits that each one of these groups plays a key role in the success of the business. Managers should not simply focus on shareholders and overlook the other stakeholders, but instead, must ensure that resources are utilized in a way that benefits all parties.

On the basis of the stakeholder theory, Freeman (1984) suggests that CSR engagement leads to better relationships with the various stakeholders of a firm, which in turn will lead to better financial performance over time. Since then, many more scholars have also established a positive relationship, which strongly supports Freeman's stakeholder theory of CSR. Jones (1995) argues that a firm can be viewed as a nexus of contracts between itself and its stakeholders. When these contracts (relationships) are based on trust and cooperation, there is a reduced cost of opportunism and thus the firm will enjoy a competitive advantage. Waddock and Graves (1997) suggest a positive relationship but a simultaneous one. They claim that not only CSR engagement leads to better financial performance but also improved performance can have a positive impact on the level of CSR engagement. They propose the good management theory and the slack resource theory to support their claim. That is, firms engaging in CSR activities, for example, may find it easier to attract more competent employees, or may obtain tax breaks from the government because of improved relations with the community (good management), which will then lead to better financial performance. And with better financial performance, firms will have more resources available to consider investing in CSR (slack resource). Russo and Fout (1997) found that undertaking socially responsible policies lead to improved profitability for the firm. Hillman and Keim (2001) also found a positive impact of CSR on firm's profitability, claiming that if a firm CSR activities meet the expectations of its stakeholders, then these activities will create value, and result in better financial performance. El Ghoul et al. (2011) investigated the effects of CSR on the cost of equity capital for a large sample of US firms. They found that the cost of equity is indeed lower for firms that exhibit a higher CSR score. Dhaliwal et al. (2014) and Reverte (2012) reported similar results. Gregory, Tharyan, and Whittaker (2013) also investigated the effects of CSR on firm value and tried to determine why high CSR companies are valued higher. They argued that this higher valuation occurs either because such firms are expected to perform better in the short-run, or expected to perform better in the long-run, or they enjoy a lower cost of capital. After analyzing a large sample of US firms over a period spanning from 1992 to 2009, they found that markets positively value CSR because they expected a higher growth rate in abnormal earnings from high CSR firms.

2.3- Corporate governance

Corporate governance became a major issue in 2002 following numerous corporate and accounting scandals that caused huge losses to investors throughout the world. In order to restore public confidence in corporate governance and mitigate the conflict of interests between stakeholders, governance mechanisms that monitor the actions, policies, practices, and decisions of corporations were developed. Researchers have used various definitions to define corporate governance. These definitions tend to fall either in narrow or broad views. The narrow view of corporate governance focuses on the rules in capital markets guiding equity investments in listed firms to prevent insiders from expropriating outside investors (Claessens and Yurtoglu, 2013). These rules include listing requirements, disclosure and accounting rules, and protection of minority shareholder

rights. This narrow perspective of corporate governance is quite similar to the one proposed by Schleifer and Vishny (1997). They defined corporate governance as "*the mechanisms through which suppliers of finance to corporations assure themselves of getting a return on their investment*".

A broader definition, however, would be the one advanced by the Cadbury Committee (1992), which defines corporate governance as: "*the systems by which companies are directed and controlled".* This definition encompasses the mechanisms that govern the relationship between all the stakeholders of the firm, that is, between shareholders, debtholders, and the firm; between financial markets and the firm; and between employees and the firm (Claessens and Yurtoglu, 2013). Such mechanisms are classified into 2 categories, namely the internal and external mechanisms.

Internal mechanisms monitor the firm's activities and take corrective actions when necessary to ensure that organizational goals are reached. These include monitoring by the board of directors, monitoring by large shareholders, internal control procedures, and remuneration of top executives.

External mechanisms are exercised by entities outside the organization, imposing guidelines and regulations on companies, which may choose to follow them or not. They serve the objectives of entities such as regulators, governments, and financial institutions. Companies that comply with external corporate governance regulations are viewed as more transparent and will have a better reputation with their external stakeholders.

2.4- Theoretical perspectives on corporate governance

There have been at least 214 studies investigating 251 CSP-CFP effects (Margolis et al. 2003), but only a few of them included corporate governance attributes to examine their effects on either CSR, corporate performance or firm value. However, with the rising interest in corporate ethics, corporate governance is receiving more consideration from researchers. In this section, I review the theories associated with the role of the board of directors together with the arguments related to different types of ownership structure.

2.4.1- Agency theory

Agency theory has been the most influential theoretical construct of corporate governance (Dalton et al. 2007). Agency problems stem from the information asymmetry that exists between the shareholders or owners of a company and its managers. In small companies, there is no distinction between management and ownership, that is, the person managing the business, is also the owner. However, as the company grows, there is a separation of ownership and actual management. The relationship between the agents (managers) and the principles (shareholders) constitutes the basis of the agency theory.

The agents are hired by the principle to act on their behalf and represent their interests. However, these agents or managers may not have an incentive to work on increasing shareholders wealth but instead, prefer to serve their own utility, and because they have more information about the business than the actual owners, they can exploit this power (Jensen and Meckling, 1976). For example, they can award themselves discretionary payments, higher bonuses, or private jet flights, even though it does not add value to the business. These higher expenses lower the profit of the organization and thus depreciate shareholders wealth.

Daily et al (2003) denote two key assumptions that underlie the agency theory. First, the theory reduces the corporate environment to only two participants, namely the shareholders and the executives. Second, the theory assumes that all individuals are egocentric and will act in their own self-interests if given the opportunity. As such, both participants, shareholders, and executives are expected to make decisions that are likely to benefit them.

In the agency theory perspective of corporate governance, shareholders have primacy (Gill, 2008), and the role of the board of directors, is to protect the assets of the shareholders, the asset being the company. The board of directors is an independent intermediary between the owners and the managers, and ensures that the interests of both parties are aligned for the benefit of the organization (Shleifer and Vishny, 1997). Directors are appointed to monitor the business and guarantee that there is an open and honest reporting of the performance of the firm so that shareholders have an accurate picture of the state of the business.

Also, from the agency perspective, ownership concentration of large block holders and ownership by institutions help in reducing the agency problem between principals and agents, as block holders and institutions are better able to monitor management and participate in the firm strategic decisions (Schleifer and Vishny, 1997). Alternatively, some researchers argue that a high ownership concentration could exacerbate the agency problem with a shift from a principal-agent conflict to a conflict between principals. That is, the company will make decisions that will benefit large shareholders to the detriment of the minority shareholders (Bebchuk and Weisbach, 2010). Managerial ownership also, helps to reduce the conflict of incentives that arises from the separation of the functions of management and owners of a firm. As executives' stake in the corporate ownership increases, their interests become more aligned to those of the shareholders. Such executives would refrain from short-term profits to focus on long-term value-creating investments, as doing so would increase their own personal wealth (Johnson and Greening, 1999).

In brief, in the agency theory view, managers are the agents, shareholders are the principle, and the corporate governance mechanisms play a monitoring role.

2.4.2- Stewardship theory

In the literature, agency theory has been the most influential. Stewardship theory was developed as an alternative to agency theory. While one theory views the organization as a state of conflict between the principle on the one hand, and the agents, on the other hand, stewardship theory offers a different perspective on the dynamics of the organization.

In fact, stewardship argues that most people if given the opportunity, will act as stewards of the organization, that is, they will take care of the business (Davis, Schoorman and Donaldson, 1997). As such, there is no inherent conflict between managers and owners, as managers will act in the best interest of the corporation. Stewardship theory views management as committed to the business and its objectives, and derive satisfaction by ensuring that the firm is run properly (Daily et al., 2003). For this reason, a strong relationship exists between managers and the success of the firm, and so stewards protect and maximize shareholders wealth through firm performance. Managers by promoting the longevity of the business, are at the same time preserving their position in the company.

Because both shareholders and managers share the same interests, stewardship theory views the two groups as a single collective team at the top of the corporation. The board's role is not to direct and control the corporation but to support and assist the CEO and management in accomplishing their tasks. Also, while the agency theory views the separation of the role of chairman and CEO as a way to increase the monitoring power of the board, stewardship theory considers that this separation could interfere with CEO decisions, and instead, advocates the appointment of a single person for the position of chairman and CEO (Rechner and Dalton, 1991). This grants the CEO more freedom to enact the corporate strategies and work in the best interests of the owners.

One drawback of this theory is that it can become difficult to hold the CEO accountable for results because there is no bright line between the board and management responsibilities. Also, there has not been significant empirical evidence in support of the theory.

2.4.3- Resource dependency theory

The resource dependency theory was first elaborated by Pfeffer and Salancik (1978). This theory argues that organizations are not autonomous, but rather exists in an external environment, comprised of a network of interdependencies with other organizations. This interdependence of the organization lead to a situation in which survival and continued success are uncertain, and the goal of the firm is to reduce its dependencies. This way, the firm limits the level of uncertainty thus, improves its autonomy and legitimacy. The firm can achieve this by acquiring and taking control of outside resources

such as raw materials, labor, reputation, and so on. Pfeffer and Salancik (1978) proposed five alternatives through which, firms can reduce their dependencies: mergers and acquisitions, joint ventures, political actions, executive succession, and board of directors.

Hence, contrary to the agency theory view of corporate governance, where the board of directors plays a monitoring role, the resource dependency view claims that the role of the board of directors is to provide access to resources to the organization. Directors are elected according to the skills, knowledge, and ability they can bring to the firm (Gales and Kesner, 1994). These can be in terms of human capital, raw materials, links to customers or suppliers, and so on. Pfeffer and Salancik (1978) hypothesized four ways in which directors contribute to organizations: information in the form of advice and counsel, access to channels of information between the firm and environmental contingencies, preferential access to resources, and legitimacy.

Researchers have focused on board characteristics, such as board size or board composition, in order to find support for these hypotheses. According to the resource dependency theory view, a larger board would be beneficial for the firm as more directors suggests more opportunities to create linkages. In fact, each of these directors brings with them new connections with other organizations, politicians, the community, among others. For the same reasons, this theory also advocates an independent board and different individuals holding the CEO and the chairman positions. Considerable empirical evidence confirms the benefits above mentioned. Hillman et al. (2000) found that as environments change, firms tend to alter the composition of their board to reflect the new environment demands. Peng (2004) found that resource-rich outside directors have a positive impact on firm performance, while resource-poor outside directors do not. This supports the view that firms that do not adapt the composition of their board to environment changes will experience a deterioration in their performance. Kor and Misangyi (2008) found a negative relationship between top management and the board collective levels of industry experience. This finding suggests that the board supplements top management with vital advice and counsel.

Overall, in the resource dependency theory, the board of directors serves to link the external resources with the firm to overcome uncertainty and is considered as the network of the organization.

2.4.4- Stakeholder theory

Contrary to the agency and stewardship theories, which reduce the corporation context to only managers and shareholders, the stakeholder theory includes multiple stakeholders, with whom managers have to cooperate in order to operate the business and reach organizational goals. These stakeholders involve the firm's customers, its employees, investors, government agencies, the local community, and so on. As stated earlier, this theory was first instigated by Freeman (1984), who claims that firms, in trying

to maximize shareholders wealth must also consider the interests of their various stakeholders.

In this regard, corporate governance must enable the firm to be operated for the benefit of all its stakeholders, with managers playing a decisive part, given their control over decision making (Windsor, 2006). Managers are responsible for safeguarding the benefits and interests of the different stakeholders and maintain the long-term profitability of the firm. Stakeholder theory supports the idea of the CEO and chairman position being held by the same individual as such actions would grant more power and autonomy to management. Given his central role in determining the firm strategies, a more powerful CEO is able to make decisions aligning the interests of all stakeholders without the interference of the board. Furthermore, the theory argues that in order to effectively address the various stakeholders needs, these stakeholders must be directly represented on the board of directors. In that sense, a large and representative board is advocated.

2.5- Dutch corporate governance

The Dutch corporate governance system has undergone major changes over the past decennium. From a stakeholder orientation with the structure-regime, Dutch corporate law evolved to become a more shareholder-friendly system following the recommendations of the Peters Committee in 1997 and later on, the enactment of the corporate governance code in 2004.

The unique Dutch 'structure-regime', which separates ownership and control, has been legally prescribed since 1971 for companies that meet the following conditions: companies with at least 100 workers employed in the Netherlands, a work council is installed, and a book value of equity of at least 11.4 million euros. Under this regime, firms are required to establish a two-tier board structure, consisting of a supervisory board and a management board. The supervisory board supervises the policies of the management board and the implementation of the company's long-term strategies, and support the management board by providing advice. Its members are appointed through co-optation, in other words, the supervisory board elects its own members. Also, the board elects members of the management board, establishes and approves the annual accounts, and has authority over a number of managerial decisions such as investment plans, company restructuring and so on. Some firms may request and be exempted from applying the full structured regime if they have more than 50% of their employees outside of the Netherlands. The Dutch structure regime diminishes considerably shareholders' involvement in corporate activities, but also allows a wide range of defense mechanisms against takeovers.

Following a large controversy in the early 1990s about the conservation of the multitude takeover defense mechanisms, an effort was made to produce a corporate governance proposal for listed firms. The 40 recommendations of the Peters Committee, issued in

1997, set into motion the reexamination of Dutch corporate law to re-establish the status of the shareholder, resulting in the adoption of the Dutch corporate governance code in 2004. The Dutch corporate governance code is a code of conduct for listed companies aimed at improving transparency in the financial statements, improving accountability to the Supervisory Board and strengthening the Control and protection of shareholders. It became first effective in 2004 together with the Monitoring Committee (also known as the "Frijns Committee"), which has the responsibility to promote the usefulness of the code and to monitor its compliance by listed companies. After 5 years of experience with the code, the Monitoring Committee issued an updated version, which became effective in 2009. In the amended version, more emphasis was placed on the way in which directors, supervisory directors, and shareholders exercise their duties in practice. Also, it became a requirement for companies to report on their application of the revised Dutch Corporate Governance Code and to explain any deviations from its best-practice provisions. In 2016, the code was revised for the second time and brought in line with current practices. Under the new code, long-term value creation is given a central role, because many scandals that occurred over the past years were mostly due to business models that focused too much on achieving short-term gains.

As stated earlier, Dutch listed firms mostly apply the two-tier board system. As pertaining to the composition and size of the supervisory board, there is little mention in the corporate governance code. The only obligatory provision is that only natural persons can be designated as directors. The code stipulates that companies should aspire to a diversified configuration of the supervisory board in terms of gender and age. There are no regulations regarding its maximum size, however, it must consist of at least 3 members, whom may be appointed for a maximum of three terms. The number of directors varies in general from 3 to 9. On the matter of the independence of the supervisory board, the code is quite rigorous. It states that all members must be independent according to the independence criteria in the code. These criteria prohibit employees of the firm or members of the management board for a period of 5 years prior to nomination to the supervisory board, individuals who have had significant business relations with the firm in the year prior to nomination, and persons holding 10 percent or more of the company's equity, among other criteria. Also, the code provides that members of the supervisory board cannot be awarded stock options as a form of remuneration. The management board manages the company and is responsible for implementing the company's strategies and achieving its goals. The corporate governance code states that the management board must generate a complete risk analysis of the operational and financial activities of the company and also must guarantee the accuracy of the issued financial statements.

3- Hypotheses development

3.1- CSR and firm performance

The shareholder theory claims a negative effect of CSR on firm performance. This theory views CSR engagement as a waste of company resources and argues that the only social responsibility of the firm is value maximization for its shareholders.

The stakeholder view, on the other hand, stresses the necessity for the firm to consider the interests of all the various groups that impact or are impacted by the firm, or as Freeman (1984) named them: the stakeholders of the firm. By aligning the needs of all the business's stakeholders, the company can indirectly increase its bottom line, which would then lead to more wealth for its shareholders. As such, CSR is argued to be positively related to firm performance.

The two theories could be reconciled if one takes a broader perspective on the shareholder theory. In fact, a company that wants to increase its profits needs to create a great product and provide great customer service in order to satisfy its customers. It also needs to provide its employees with satisfactory working conditions and good compensation in order to improve their motivation and productivity. In addition, a firm engaged in unethical conduct can damage its reputation toward the community and thus lower its profits. The customers, employees, local community are all stakeholders of the company and the firm needs to maintain good relationships with them so to achieve its ultimate goal of shareholders wealth maximization. In other words, the modern movement of CSR addressed Friedman (1970) concerns and made them less relevant, as it claims that there are no tradeoffs between CSR activities and firm performance. Companies that are more responsible will also be more profitable. Therefore, CSR activities are justified because they are in the long-term interests of the shareholders.

The empirical evidence has been overwhelmingly in favor of a positive impact of CSR on firm performance (Hillman and Keim, 2001; El Ghoul et al., 2011; Reverte, 2012). Surroca et al. (2010) also found that firms could gain a competitive advantage by engaging in CSR, which would lead to higher profits. They also claimed that the negative effect found by earlier research on the relationship between CSR and firm performance may be attributed to measurement problems. Waddock et al. (1997) mentioned the same reasons, claiming that an inadequate measure of CSR was used in earlier studies.

Building on this, I posit the first hypothesis as follow:

H1: the effect of CSR on firm performance is positive.

3.2- CSR, corporate governance, and firm performance

In the scope of this study, I include the main internal governance mechanism, that is, board of directors together with three ownership structure instruments.

Board size, board independence, and CEO duality are the most common dimensions used by researchers to study the board of directors (Bhagat, 2008; Jo and Harjoto, 2011; Mallin et al., 2013). However, because Dutch firms have adopted a two-tier board, the CEO duality concept is not be relevant in our study, as the CEO in such firms cannot at the same time hold the position of chairman of the supervisory board. As such, only board size and board independence are examined.

In addition, I include three dimensions of ownership structure, namely, ownership concentration of large block holders, institutional ownership, and management ownership. Concentrated owners are known to possess more effective monitoring power over management and can influence management in carrying out firm strategies (Kabir et al., 1997). Also, institutional investors are the largest type of shareholders in most countries. They have been one of the major elements of the rapid proliferation of CSR and good corporate governance practices (Aguilera et al. 2006). Management ownership is argued to reduce the inherent conflict between management and owners. When managers become owners themselves, their interests become aligned with those of the shareholders. Studies conducted in Netherlands give support to this argument. Donker et al. (2009) in their study on Dutch firms found that managers with higher ownership stakes are more likely to prevent financial distress. Bos and Donker (2004) found that management ownership decreases the likelihood of managers engaging in negative accounting changes.

In this regard, it may be interesting to investigate how these three dimensions of ownership influence the CSR – firm performance relationship, especially in the Dutch context, which has a governance system that exhibits both features of the Anglo-Saxon and the continental Europe models (Barca and Becht, 2001). In this chapter, I examine each mechanism one by one and demonstrate how it could affect the relationship between CSR and firm performance.

3.2.1- Board size

According to agency theory, the board of directors oversees and monitor management to prevent them from engaging in actions that are likely to benefit them and not the shareholders. This theory suggests that a larger board can cause coordination and communication issues (Jensen, 1993), thus allowing short-term profit-oriented managers to take control and reduce the firm's investments in CSR (Walls and Hoffman, 2013). There is an alternative view of the agency theory that suggests that having a larger board is preferred because a larger board has an improved monitoring ability. Management

trying to invest in value destroying CSR activities for their own benefit will face the opposition of the board, which protects the interests of the shareholders (Coles et al., 2006). Under the resource dependency perspective also, a larger board size would be beneficial for the firm in terms of its CSR activities. Because directors benefit the firm by providing resources, knowledge, and expertise to the firm, a larger board implies additional backgrounds and competencies and thus would be better able to advise management on decisions that result in improved social performance.

Empirical evidence has shown a positive relationship between board size and CSR. Brown et al. (2006) investigated the effects of corporate philanthropy on firm value, using a sample of Fortune 500 companies. They found that giving indeed enhances shareholders value. They also found that a larger board size is positively related with the firm engagement in more charity activities such as cash giving or the establishment of corporate foundations. de Villiers et al., (2011) examine the link between a firm environmental performance and its board characteristics. Using a sample of 2151 observations from the KLD database, they found that environmental performance is higher in firms that have larger boards. More scholars have confirmed these findings (Jo and Harjoto, 2011; Mackenzie et al., 2013; Hillman et al., 2001…)

Based on the aforementioned predictions and studies, I formulate the following hypothesis:

H2: The positive effect of CSR on financial performance is stronger when a firm also has a larger board.

3.2.2- Board independence

Board independence refers to the number of non-executive or outside directors that sit on the board of a firm, and the higher this number is, the more independent the board is perceived to be. Agency theory advocates the usage of independent directors because of their ability to better monitor management. As opposed to inside directors, who may have a conflict of interests, independent directors can ensure that the firm's executives are acting in the best interests of the company. Stakeholder theory also suggests having an independent board, as these independent directors will represent the interests of various stakeholders of the firm and thus increase performance.

Many researchers investigated the relationship between board independence and CSR outcome and found a positive relationship. Hong, Li, and Minor (2015) examine the impact of corporate governance on CSR engagement. They attempted to determine whether CSR is value maximizing or an agency cost, by analyzing if board independence makes it more likely or less likely for a firm to engage in CSR. They posit that if CSR does create value for shareholders, then a firm with an independent board will be more inclined to invest in CSR, but the opposite would hold true if this decision is value destroying. Their findings support the notion that CSR is profitable to shareholders, as they observe that firms with more shareholder-friendly corporate governance are more

likely to provide incentives to executives associated with the firm CSR performance outcome. Cornett et al. (2008) found that a board dominated by independent directors is more capable of preventing the company's managers from engaging in value destroying behavior. Jo and Harjoto (2011) investigated the question as to whether CSR engagement together with corporate governance mechanisms increases firm value. First, they found that several corporate governance attributes, including board leadership, institutional ownership, and board independence, positively affect the firm's CSR engagement. They also found that CSR engagement is positively related to firm value. Mallin et al., (2013) examined the disclosures of 100 U.S best corporate citizens in the period 2005-2007 to determine how corporate governance affects social and environmental disclosure. Their results suggest that board independence together with other governance mechanisms positively affect the probability that firms commit to CSR and boost their performance.

In the light of this empirical evidence, I posit the following hypothesis:

H3: The positive effect of CSR on financial performance is stronger when a firm also has an independent board.

3.2.3- Ownership Concentration

A block holder is an investor (individual or institutional) that holds at least 5 percent of equity ownership within the firm, and ownership concentration refers to the amount of stock owned by these block holders. Agency theory argues that the large presence of block holders suggests a stronger monitoring power from investors over a company's managerial decisions mainly due to these owners incentive to protect their stake in the company (Gabrielsen et al., 2002). As such, concentrated owners will prevent CSR activities undertaken by management for opportunistic purposes, to instead focus on strategic decisions that maximize firm value. Alternatively, from a stakeholder perspective, large block holders will support CSR investments, as they believe such investments have a positive effect on long-term firm value.

The empirical studies tend to suggest that block holders disfavor proactive CSR, and prefer to undertake solely the minimum required CSR standards. Arora and Dharwadkar (2011), using a sample of S&P 500 firms investigated the relationship between corporate governance mechanisms and corporate social responsibility. They posited that effective corporate governance is negatively related with positive CSR as well as negative CSR. Their results confirmed their predictions that tighter monitoring mechanisms such as an independent board, or block ownership result in a decline in positive but also negative CSR. Other researchers obtained similar results (Rees and Rodionova, 2015; Dam and Scholtens, 2013).

In any case, the block holders whether in favor of CSR or not, will monitor management and ensure that managers will not use CSR as an entrenchment strategy. As such, the firm will not engage in negative or value destroying CSR (Jo and Harjoto, 2011; Mallin et al., 2013)

Based on this line of argument, I develop the 4th hypothesis:

H4: The positive effect of CSR on financial performance is stronger when a firm also has a concentrated ownership.

3.2.4- Managerial ownership

Agency theory stipulates that when there is a separation between ownership and management, a conflict of interests arises, as managers may act in a way that benefits them at the expense of the owners of the firm, in other words, the shareholders. In order to reduce this conflict, managers may be offered shares compensation to increase their stakes in the company, this way, aligning their interests with those of the shareholders. As managers become owners themselves, they will make decisions that are in the best interest of the company and that would maximize shareholders wealth. This line of argument is known as the alignment hypothesis (Jensen and Meckling, 1976). Under the alignment hypothesis, managers would favor long-term value-creating CSR strategies (Johnson and Greening 1999). Another perspective, however, suggests that management ownership may result in entrenchment (entrenchment theory). As managers own more equity in the firm, they also gain more control and it becomes more difficult to monitor and control managerial actions. This situation would then allow them to pursue private interests and reduce CSR investments to the bare legal requirement (Bebchuk, 1999).

Empirical evidence hardly shows a positive effect of managerial ownership on CSR engagement. Many scholars found no effects at all (de Villiers et al. 2012; Borghesi et al., 2014; Kock et al., 2012; Walls et al., 2012). Still, others found a negative effect. Arora and Dharwadkar (2011), investigating the moderating role of attainment discrepancy and organization slack on the relationship between corporate governance and CSR found a negative impact of the number of shares owned by a firm's CEO on the firm CSR activities. Barnea and Rubin (2010) argued that firm insiders may have the incentive to overinvest in CSR for personal benefits, such as improved reputation. After analyzing the relation between firm' CSR ratings and their ownership structure, they found that insiders' ownership has a negative effect on firm's social rating. Jo and Harjoto (2011) also investigated the relationship between top management ownership and the firm propensity to engage in CSR activities and found that these two variables were negatively related. Such results were confirmed by numerous other research (Oh et al., 2011; Deutsch and Valente, 2013; McGuire et al., 2012).

However, a study by Donker et al. (2009) realized on Dutch firms listed on the Amsterdam Stock Exchange, investigated the impact of different type of ownership structure, including institutional, management, and outside shareholders, on the likelihood of financial distress. The findings show that managers with higher ownership stakes are more likely to prevent financial distress, consistent with the alignment theory.

The implications I draw from the following arguments lead to this fifth hypothesis:

H5a: If the entrenchment theory is correct, the positive effect of CSR on financial performance is weaker as the firm's managerial ownership increases.

H5b: If the alignment theory is correct, the positive effect of CSR on financial performance is stronger as the firm's managerial ownership increases.

3.2.3- Institutional ownership

In recent years, institutional ownership has become an important aspect of corporate monitoring. Agency theory argues that institutional investors are more able to monitor management and have more incentives to do so than are smaller, non-institutional investors (Jo and harjoto, 2011). In fact, because institutional investors own a significant percentage of the firm's equity, they tend to be more actively involved in firm's decisions and use their ownership rights to pressure managers to act in the best interest of the shareholders (Shleifer and Vishny, 1986). However, studies have shown that not all institutional investors are equal. Some are more actively involved in the firm's decisions while other take a more passive stance. Brickley et al., (1988) suggested two profiles, namely the pressure-sensitive and the pressure-insensitive groups. The pressure-sensitive institutional investors have existing or potential business relations with firms, and as a way to preserve those relations, are less likely to object management decisions. On the other hand, the pressure-insensitive group is not exposed to the influence of the firms in which they invest and therefore are better suited to discipline and impose controls on corporate managers. In addition, the incentives of different institutional owners are not always aligned, as different owners have distinctive interests (Neubaum and Zahra, 2006).

Because there has been much empirical evidence in support of this rationale, we do not expect all institutional owners to have the same orientation towards the firm's CSR engagement. Studies of institutional owners in relation to CSR have generally grouped them according to their investment time-horizons (Johnson and Greening, 1999; Neubaum and Zahra, 2006; Oh et al., 2011). As stated earlier, some institutional investors such as banks, and mutual funds have a reward system which emphasizes short-term performance. As such, they would most likely pressure managers of their portfolio firms to adopt this orientation. And given the short-term orientation, investments in CSR will most likely be viewed as unnecessary and a waste of company's resources. Some others, such as pension funds have relatively long-term perspective. Since the returns from CSR are expected to be realized mostly in the long-run, the long-term oriented investor is more likely to favor CSR investments and through his ownership right, can ensure that the firm's management invests in value-creating CSR.

Empirical evidence has shown that long-term institutional ownership is positively related to corporate social performance. Neubaum and Zahra (2006) investigated the effects of investment time-horizon on the institutional ownership – CSP relationship. Using a

sample of firms from the fortune 500, they found that the volume of long-term pension fund holdings is positively associated with CSP. Oh et al. (2011) examined the impact of different type of owners on the firm's CSR engagement. They found that ownership by institutions with long-term investments is positively related to CSR ratings. Mallin et al. (2013) and Jo and Harjoto (2011) reported similar findings.

Based on these arguments, I formulate the final hypothesis:

H6: Long-term oriented institutional investors strengthens the relationship between CSR and financial performance

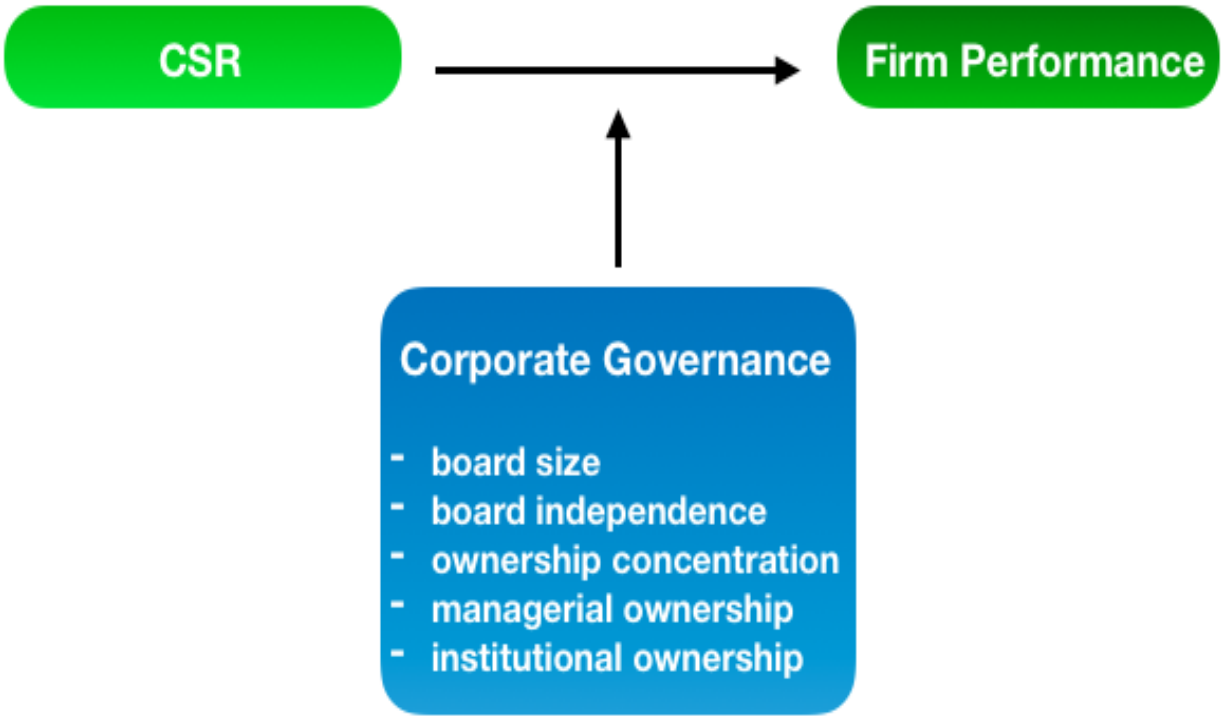

Figure 2: Theoretical model

4- Research method

This research involves three components, namely CSR, corporate governance and firm performance. In this section, I discuss how the research is conducted and present the variables that are used in the analyses.

4.1- Methodology

First, I conduct a univariate analysis and descriptive statistics to check for normality, linearity multicollinearity and homoscedasticity of the data. Winsorization at 1% may be used to handle extreme data. Following that, I regress firm performance, in terms of the control variables only, to analyze their impact. Then in a second model, I regress firm performance in terms of CSR scores and control variables. In the final model, financial performance is evaluated in terms of CSR, corporate governance, and control variables to determine the impact of corporate governance on the relationship between CSR and corporate financial performance.

Regression analyses are performed when one would like to predict a dependent variable Y, using independent variables (also known as explanatory variables) to make the predictions for Y. A regression with a single explanatory variable is known as a simple regression, and one that involves 2 or more explanatory variables is known as a multiple regression. A countless number of regression models have been developed to make predictions, however, in studies of this nature, three models stick out, namely, probit, logistic, and linear regression.

Probit regression is used when the dependent variable Y is dichotomous, meaning that it can take only two values. For instance, Y can be assigned a value of 1 if a certain firm issues CSR reports and 0 otherwise. On the other hand, when the dependent variable is categorical, that is, it has a fixed number of possible values or categories, a logistic regression model would be more appropriate. Finally, a linear regression is used when the dependent variable is continuous, in other words, can take on infinitely many values. Given that the two dependent variables in this study, namely, ROA and Q ratio, are continuous, I consider a linear regression more suitable for the analyses. The most common form of linear regression used is ordinary least squares regression (OLS). The OLS estimation technique tries to predict the dependent variable as accurately as possible by minimizing the sum of the squared differences between the actual dependent variable and its predicted values. As such, I perform an OLS in this thesis, in accordance with previous studies of this nature that used the same technique (Waddock and Graves, 1997, Oh et al., 2011, Peng and Yang, 2014).

Testing a moderator effect

A moderator is a variable that affects the strength or direction of a causal relationship between a dependent variable and an explanatory variable (Cohen et al., 2015). It tests whether the predictions of the dependent variable changes at various levels of the moderator.

Hence in order to test for the moderating effect of corporate governance on the relationship between CSR and financial performance, I first, centralize the variables CSR, board size, board independence, ownership concentration, management ownership, and institutional ownership. Centralization describes the process of finding the mean of the variable and then subtracting that mean from every value of the variable so to make a new variable that has a mean of zero. This process has two advantages. First, it reduces the multicollinearity issue that can arise when dealing with interaction terms, as high multicollinearity can cause large standards errors and thus unreliable results of the regression estimates (Hamilton, 1992). Second, it makes the interpretations of our results easier.

Following the methodology of Peng and Yang (2014) in their analysis of the moderating role of ownership concentration in the relationship between CSR and firm performance, I multiply each of the corporate governance variables to the CSR variable to create the interaction terms, which I will use to test for the interaction effect or moderation.

The empirical equation is as follows:

$$(1)\ FP_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 CG_{it} + \beta 3 CSR_{it} * CG_{it} + \beta_4 Controls_{it} + \varepsilon_{it}$$

Where:

FP_{it} = Financial performance of firm "i" in year "t"

CSR_{it} = Corporate social responsibility performance of the firm in year "t"

CG_{it} = Corporate governance variables in year "t"

$CSR_{it}*CG_{it}$ = Interaction term between CSR and corporate governance variables

$Controls_{it}$ = Firm size, leverage, industry dummies and year dummies

Testing for endogeneity

In addition, some researchers argue that endogeneity constitutes a crucial issue and must be accounted for in the relationship between CSR and firm performance. Endogeneity emerges from problems such as confounding omitted variables, simultaneity between the independent and the dependent variable, or errors in regression covariates. Jo and Harjoto (2011) state that better performing firms are more prone to engage in CSR. As a

result, the findings of a research may be overestimated if there is no adjustment for endogeneity. However, Gregory et al. (2013) choose to not control for endogeneity in their study, claiming that the reverse causality in the relationship between CSR and financial performance is less likely because the possibility that a short-term financial slack driving a long-term CSR commitment is very small. In order to evaluate the real impact of this problem in altering our main results, I conduct additional tests controlling for endogeneity.

A general solution to the endogeneity problem is the application of instrumental variables. The logic of an instrumental variable is that it must be at the same time correlated with the endogenous variable, and uncorrelated with the error term. Because it is only correlated with the independent variable of interest and not any other variable, the instrument will affect the dependent variable exclusively through the independent variable. Such conditions are shown to be difficult to fulfill in practice (Antonakis et al. 2010). As such, I use an alternative method to account for endogeneity, using a lagged variable, as some researchers have done (Waddock and Graves, 1997; Barnett and Salomon, 2012). I estimate the complete model again, but this time using a lagged CSR variable, allowing to interpret the results as an effect of CSR on firm performance and not vice versa. Finally, I compare the new results with the previous ones to gauge the real impact of endogeneity. The following empirical equation will be used to test for endogeneity.

$$\textbf{(2) } FP_{it} = \beta_0 + \beta_1 CSR_{it-1} + \beta_2 CG_{it} + \beta 3 CSR_{it-1} * CG_{it} + \beta_4 Controls_{it} + \varepsilon_{it}$$

Where:

FP_{it} = Financial performance of firm "i" in year "t"

CSR_{it-1} = Corporate social responsibility performance of the firm in year "t-1"

CG_{it} = Corporate governance variables in year "t"

$CSR_{it-1}*CG_{it}$ = Interaction term between CSR and corporate governance variables

$Controls_{it}$ = Firm size, leverage, industry dummies and year dummies

Table 1 : Measurement of the variables

Dependent variable	Measurements
ROA	= EBIT divided by total assets
Q	= Market capitalization divided by book value of total assets
Independent Variables	
CSR	= Transparency benchmark score of the firm
BOARD_SIZE	= Total number of directors in the supervisory and management board
BOARD_IND	= Number of independent directors divided by total number of directors in both management and supervisory board
OWN_CON	= The percentage of outstanding shares owned by shareholders who own at least 5% of equity
OWN_MNG	= The percentage of total equity owned by the CEO
OWN_INST	= The percentage of total equity in a firm owned by pension funds
CSR * BOARD_SIZE	= The interaction effect of CSR and board size
CSR * BOARD_IND	= The interaction effect of CSR and board independence
CSR * OWN_MNG	= The interaction effect of CSR and managerial ownership
CSR * OWN_CON	= The interaction effect of CSR and ownership concentration
CSR * OWN_INST	= The interaction effect of CSR and institutional ownership
Control variables	
SIZE	= Natural logarithm of the firm's total assets
LEVERAGE	= Total debts divided by total assets
INDUSTRY	= Industry dummies
YEAR	= Year dummies

4.2- Measurement of variables

4.2.1- Dependent variable

I use return on assets (ROA) as proxy for firm performance because of its prevalent use in previous studies (Waddock and Graves, 1997; Reverte, 2009; Bhagat, 2008), and is calculated as earning before interest and taxes (EBIT) / Total assets. However, some researchers have argued against the use of such metric, stating that accounting-based measures are subject to manipulations by management. As such, additional tests will be conducted using a market-based measure of firm performance, namely Tobin's Q ratio, as a way to check the robustness of the results.

Tobin's Q is a ratio devised by James Tobin, who hypothesized that the market value of a physical asset on the stock market should be about equal to its replacement value (Tobin and Brainard, 1977). However, because of the difficulty to estimate the replacement cost of an asset, it has become common practice in the literature to use another version of

Tobin's Q ratio. This other version, called Q ratio, assumes that the replacement cost of the asset is equal to its equity book value + liability book value. As such, I calculate Q ratio as the market capitalization of the firm / book value of total assets.

Both ROA and Q ratio measures will be retrieved from Orbis, a database from Bureau van Dijk.

4.2.2- Independent variables

In investigating the role of corporate governance in the relationship between CSR and firm performance, the independent variables will be CSR and corporate governance. Two board characteristics are included, namely, board size and board independence, and three ownership structure elements, namely, ownership concentration, management ownership, and institutional ownership.

Measurement of CSR

CSR is composed of various categories, including a wide range of activities such as environmental efforts, philanthropy, and ethical labor practices. Past researchers have used a unidimensional construct to measure the level of CSR engagement of firms. Waddock et al. (1997) identify this as the measurement problem. They argue that, in order to capture the multi-facets of CSR, one needs to use a multidimensional measure. To deal with that problem, subsequent researchers used the KLD index, which rates the corporate social performance of firms, based on various CSR characteristics. Most of the recent research pertaining to CSR use the KLD rating for CSR measurement (Jo and Harjoto, 2011; Barnett et al., 2012; Gregory, Tharyan and Whittaker, 2013; de Villiers et al., 2011). However, not having access to this database, I use another method of CSR scoring called content analysis. This method has been used by various researchers (Holder-Webb et al., 2009; Chiu and Wang, 2014). It consists of analyzing a firm's annual reports, website, press releases and so on, and determining how many times a certain word has been mentioned (for example: CSR, sustainability…). The assumption is that, the more a firm mentions these terms, the higher its CSR performance is perceived to be. One can question the reliability of this method as the firm disclosures can differ from its actual operations, however, Holder-Webb et al. (2009) claim that we can assume that the more a firm is aware of a certain issue and discloses information about it, the more likely will it take actions about it.

Because I considered that it is more accurate to rely on a database issued by a specialized institution instead of generating our own database, I used the transparency benchmark issued by the Ministry of Economic Affairs of the Netherlands. In fact, since 2004, on behalf of the Ministry of Economic Affairs, EY (former Ernst & Young) has performed an annual research on the content and quality of CSR reports of Dutch firms, assessing the

extent to which companies account for their CSR activities in their annual reports[1]. The goal of the transparency benchmark is to improve firms' disclosures on CSR in order to facilitate stakeholder dialogue, which would lead to higher social performances of firms.[2]

In the scoring process, companies are given a self-assessment questionnaire on their CSR performance to fill in. following that, the responses provided by the firms are analyzed by EY and cross-checked with EY's own data, and then this information is used to determine provisional CSR scores of companies. The companies have then the opportunity to comment on the provisional scores about any disagreement before the Ministry of Economic Affairs issues the final scores[3] . Scores range from 5 to 200, with 5 being the lowest CSR score and 200 the highest. A score of 0 can be awarded if a company does not have publicly available accounting information. This means that reporting should be accessible on the company's website or available free of charge upon request.

I used the scores issued by the Ministry as is, in this research, without any changes, in line with Reverte (2009), who adopted a similar approach. In his research, he used the CSR scores from the Observatory on Corporate Social Responsibility (OCSR), which is the Spanish equivalent of the Dutch transparency benchmark.

Measurement of corporate governance

The first corporate governance variable is board size ***(BOARD_SiZE)***. It is measured as the total number of directors present in the board of directors. Dutch companies generally, operate under a two-tier board structure, in other words, there is a management board and a supervisory board. The management board manages the company and is responsible for achieving the company's goals, strategies, and performance, while the supervisory board supervises the policies of the management board and the general affairs of the company, and support the management board by providing advice (Jong et al., 2005). The former is comprised of the firm's top executives, the latter is comprised entirely of outsiders. As such, board size is the total number of directors on the management board and supervisory board combined, in accordance with studies performed in the Dutch context (van Ees et al., 2003). Board independence ***(BOARD_IND)*** is measured as the percentage of outside directors within the total number of board members. Hence, board independence is calculated as the number of directors on the supervisory board (independent) divided by the number of directors in the supervisory and management board (total directors). Long-term institutional ownership (**OWN_INST)** is the percentage of shares held by long-term institutional owners, and following Johnson and Greening (1999) and Neubaum and Zahra (2006) is measured as the total holdings

[1] For more information on the content and quality criteria of the Transparency Benchmark, please refer to:
https://www.transparantiebenchmark.nl/sites/transparantiebenchmark.nl/files/afbeeldingen/criteriatbeng.pdf
[2] https://www.transparantiebenchmark.nl/en/about-transparency-benchmark
[3] https://www.transparantiebenchmark.nl/en/about-transparantiebenchmark/assessment-process

of public pension funds in a firm's equity. Another corporate governance concept I consider is managerial ownership ***(OWN_MNG)***, which is measured as the proportion of shares held by CEOs in line with Arora and Dharwadkar (2011) and Deutsch and Valente (2013). Ownership concentration ***(OWN_CON)*** is measured as the aggregate percentage of equity ownership of shareholders that own at least 5% (Kim et al., 2007). If there exist no holdings reaching 5% of the firm's equity, ownership concentration will be assigned a 0. Under the Dutch Financial Supervision Act, any person or entity must immediately notify the Dutch Authority for Financial markets when its shareholding reaches or exceeds 3% of the issued capital of the firm. Disclosure is also required when this percentage reaches or exceeds 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75%, or 95%. The AFM keeps a database of all the notifications which is accessible from its website. As such, the ownership structure data will be retrieved from the AFM website together with the firms' annual reports. The board characteristics data will be retrieved from the firms' annual reports.

4.2.3- Control variables

In addition, I include a set of firm characteristics, namely, firm size, R&D, risk, industry, and leverage as control variables, as previous literature suggests that these variables might impact firm performance.

More specifically, firm size ***(SIZE)*** is known to have an impact on the level of CSR engagement of firms, as larger firms tend to invest more in CSR, but also tend to perform better than their smaller counterparts. I measure firm size as the natural logarithm of the book value of total assets at the end of the fiscal year, in line with previous researchers (Dam and Scholtens, 2013; Gregory et al., 2014). A natural logarithm transformation is performed because the measure is known to be asymmetrical.

Leverage ***(LEVERAGE)*** is another control variable that I use and is calculated following previous research (Jo and Harjoto, 2011; Bhagat, 2008; Makni et al., 2008), as total debt divided by total assets. Leverage is known to affect managerial behavior. It can force them to make decisions that are in the best interest of the firm but can also prevent them from exploring new opportunities such as CSR, thus reducing profits (Barnett and Salomon, 2012).

I also control for industry effects ***(INDUSTRY)*** following the suggestion of McWilliams and Sigel (2000) and Waddock et al. (1997), who argue that firms operating in sensitive industries are more likely to be criticized regarding CSR issues and this situation may cause a difference in the level of CSR engagement of companies across industries. In this regard, controlling for industry takes these differences into account. In order to do so, I group the firms in different industries following the Standard Industrial Classification (SIC), which is a system for classifying industries by a four-digit code. The first 2 digits indicate the major group to which a business belongs, divided into 83 sections. The third

digit indicates the industry group, which is subdivided into 416 sections, and the fourth digit indicates the industry sub-classification, divided into 1005 sections. For the purpose of this study, I use the 2-digits classification. As such, firms with the first 2-digit codes ranging from 01 to 09 are classified in the "agriculture, Forestry, Fishing" industry; codes from 10 to 14 in "Mining"; codes from 15 to 17 in "construction"; codes from 20 to 39 in "Manufacturing"; codes from 40 to 49 in "Transportation and Public Utilities"; codes from 50 to 51 in "Wholesale Trade", codes from 52 to 59 in "Retail Trade"; codes from 60 to 67 in "Finance, Insurance, and Real Estate"; codes from 70 to 89 in "Services"; and finally codes from 91 to 99 are classified in "Public Administration".

Finally, I include a dummy variable ***(YEAR)*** to control for year effects. All the firm characteristic variables are collected from the Orbis database.

4.3- Data Sampling

I used secondary data in our analysis. The data includes the 75 firms composing the AEX index, the AMX index, and the AScX index from 2012 to 2016. The AEX index is composed of the 25 largest Dutch securities on the Euronext Amsterdam, the AMX index comprises the 25 firms that rank 26 to 50 in size and is also known as the midcap index, and the AScX incudes the 25 companies that rank 51 to 75 in size and is considered the small-cap index (see appendix 1 for the list of firms). The reason behind this choice is that data about these firms is widely accessible as they disclose lots of information for transparency purposes.

CSR scores from 2012 to 2016 were retrieved from the Transparency Benchmark website[4], which discloses the CSR scores of firms since 2004. The accounting information of the firms as well as the institutional ownership data from 2012 to 2016 were collected from Orbis Database. Board size and board independence data from 20152 to 2016 were collected from the firms' annual reports. Ownership concentration and management ownership data from 2012 to 2016 were collected from the Dutch Authority for the Financial Markets (AFM) website[5][6], which is responsible for the supervision of the operations in the financial markets since 2002. The data from the AFM was also cross-checked with the data from the firms' own annual reports for further scrutiny in order to ensure the reliability of the dataset. The final sample results in 375 firm-year observations for 75 firms from 2012 to 2016.

Figure 3 shows the sample based on 2-digits SIC codes. I identify 9 industries: Agriculture, Forestry, and Fishing; Construction; Finance, Insurance, and Real Estate; Manufacturing; Mining; Retail Trade; Services; Transportation and Public Utilities; and Wholesale Trade. Manufacturing firms constitute the largest group and account for approximately 37% of

[4] https://www.transparantiebenchmark.nl/en/scores-0#/survey/3
[5] https://www.afm.nl/en/professionals/registers/meldingenregisters/transacties-leidinggevenden-mar19
[6] https://www.afm.nl/en/professionals/registers/meldingenregisters/substantiele-deelnemingen

the sample or 140 observations. The second largest group is Finance, Insurance, and Real Estate and accounts for about 24% or 90 observations.

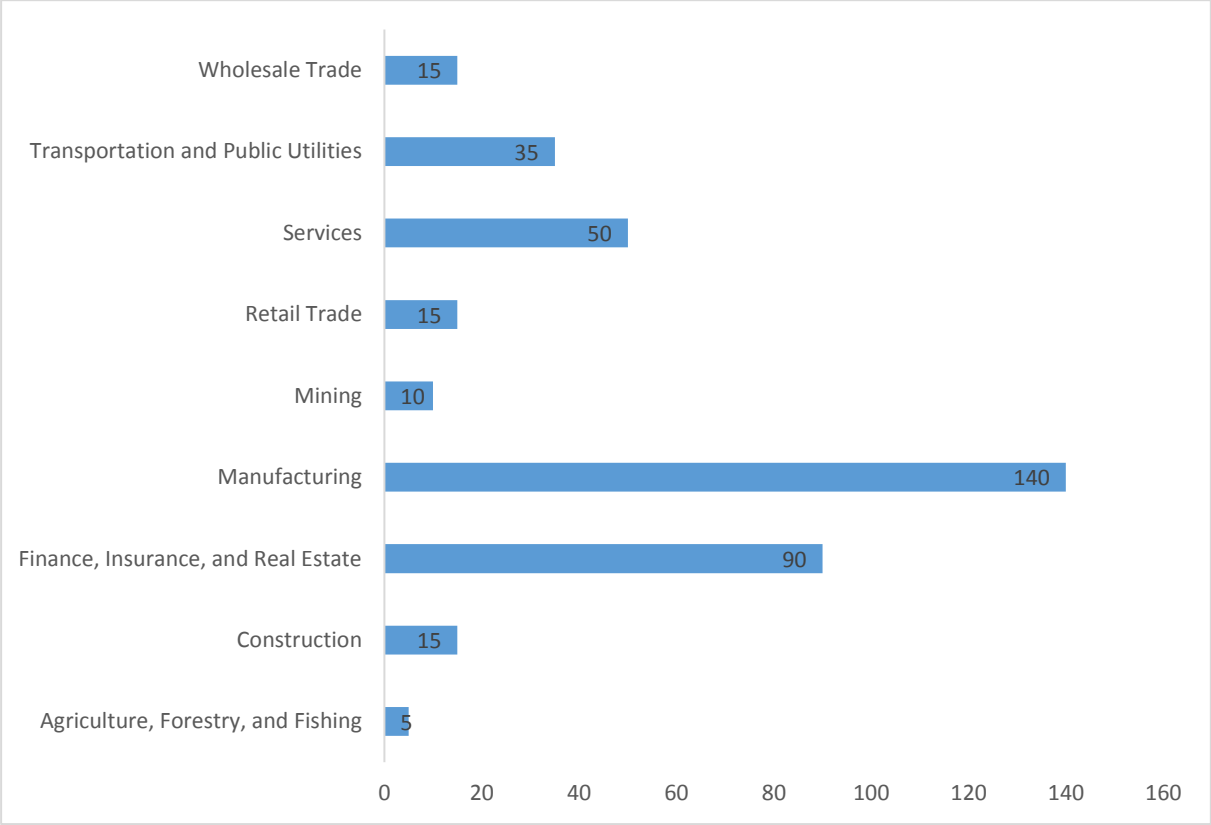

Figure 3 : Number of observations by industry

5- Empirical Results

This section presents the results of the regression analyses. First, I will report the descriptive statistics of all the variables. Following that, I will display the correlation results obtained from the correlation matrix. Finally, I will present the empirical results of the tests on the role of corporate governance in the relationship between CSR and firm performance.

5.1- Descriptive statistics

Table 2 reports the descriptive statistics of our dependent variable, independent variables, and control variables. The number of observations varies between 265 and 349. Both Q ratio and ROA are used as proxy for firm performance. The variable Q has a mean of 0.98 with a median of 0.75, suggesting that the average market value of the largests Dutch firms and their book value are similar. The variable ROA has a mean of 0.03 with a median of 0.04, in line with previous research performed on Dutch firms (Punte, 2013; Wissink, 2016).

Regarding the independent variables, CSR has a range of 194, with scores varying between 5 and 199. The mean value (118) is lower than the median (124), showing that the variable is slightly skewed to the left. The standard deviation is 54.14, and because of this high variation, I use the natural logarithm of CSR in the regression analyses. The variable BOARD_SIZE has a mean of 9, suggesting that the largest Dutch firms have on average 9 directors within their board, in accordance with van Ees et al. (2003), who reported an average of 8 directors. The minimum value is 4 directors and the maximum is 19 directors. Also, Dutch board of directors are in majority independent as on average 68% of the positions are held by non-executive directors. These values reflect what has been reported in previous studies (e.g. van Ees et al. (2003) reported a mean of 0.63, Wissink (2016) reported a mean, median, and standard deviation of 0.65, 0.64, and 0.10 respectively).

Ownership concentration, which is the total percentage of shareholders holding at least 5% of equity in the firm, has a mean of 0.53 and a median of 0.40, suggesting that the variable is slightly skewed to the right. This is in line with Kabir et al. (1997) who found that block holders hold more than half of all shares in Dutch companies. The minimum value of 0 suggests that in some firms, ownership is totally dispersed as there is no investor holding more than 5% equity stake. On the other hand, a maximum value of 1 suggests that some companies have a highly concentrated ownership, with the presence of large block holders owning the totality of the company's shares. As for management ownership, the mean is 0.02, the median 0.01 and the standard deviation 0.05. A mean of 0.02 suggests that CEOs of the largest Dutch firms have on average a 2% stake in the equity of their companies. These results are in line with van Ees et al. (2003) who reported an average of 0.03 and Punte (2013) who reported a mean of 0.02, a median of 0.04, and a standard deviation of 0.06. As for

Pertaining to the control variables, the largest Dutch firms have on average 18 billion in total assets with a median value of 3 billion. This is consistent with Punte (2013), who reported an average total asset of 17.5 billion for Dutch firms, and a median of 2.3 billion. This large difference between mean and median suggests that the variable is highly skewed to the right, and thus a logarithm transformation is performed in the regression analyses. Finally, the variable Leverage has a mean of 0.62, meaning that the largest Dutch firms have on average 0.62 dollars of debt for every dollar of asset. This value is quite similar to the median value (0.59). These correspond to the numbers reported by Wissink (2016) in his study of Dutch firms. He reported a mean of 0.61, a median of 0.58, and a standard deviation of 0.18. Punte (2013) also reported a mean, median, and standard deviation of 0.61, 0.58, and 0.18 respectively.

Table 3 presents the results of the Pearson correlation matrix. I use this matrix to perform a primitive analysis of the relationships that exist among the different variables in this study. It also allows to control for multicollinearity issues, as researchers have argued that regression results could be distorted if variables that are highly correlated are including in the same analysis. According to Cramer (2003), the correlation among the variables should not exceed 0.7. Overall, all the correlation coefficients in table 3 stay within the prescribed range, with most of them far below the critical point. Also, additional tests such as the variance inflation factor (VIF) are conducted to further investigate multicollinearity among the variables. The results are reported in appendix 2, and show that the VIF numbers of all the variables are under the critical threshold of 10.

Table 2: Summary Statistics of all variables

The table presents descriptive statistics of the variables for our sample of 375 firm-year observations from 2012 to 2016.

Variables	Observations	Mean	Median	Std.Dev	Min	Max
Dependent variables						
ROA	338	0.03	0.04	0.12	-0.65	0.45
Q	303	0.98	0.75	1.23	0.01	11.18
Independent variables						
CSR	282	118.74	124.50	54.14	5.00	199.00
BOARD_SIZE	327	8.99	8.00	2.76	4.00	19.00
BOARD_IND	326	0.68	0.67	0.10	0.43	1.00
OWN_CON	283	0.53	0.40	0.26	0.00	1.00
OWN_MNG	265	0.02	0.01	0.05	0.00	0.35
OWN_INST	304	0.11	0.06	0.15	0.00	0.99
Control variables						
SIZE (Million)	329	17738.64	2983.91	50584.99	8.66	411275.00
LEVERAGE	349	0.62	0.59	0.23	0.00	1.69

Table 3: Pearson Correlation Matrix

	1	2	3	4	5	6	7	8	9	10
ROA (1)	1									
Q (2)	0.641**	1								
CSR (3)	0.066	0.023	1							
BOARD_SIZE (4)	-0.062	-0.128	0.440**	1						
BOARD_IND (5)	0.195**	0.108	0.091	0.305**	1					
OWN_MNG (6)	-0.137	-0.084	-0.276**	-0.079	0.064	1				
OWN_CON (7)	-0.025	-0.073	-0.200**	-0.204**	-0.304**	0.322**	1			
OWN_INST (8)	0.126	0.073	0.019	0.063	0.078	-0.073	-0.028	1		
SIZE (9)	-0.087	-0.208**	0.250**	0.351**	0.299**	-0.079	0.013	-0.150*	1	
LEVERAGE (10)	-0.325**	-0.585**	0.266**	0.310**	-0.013	0.055	-0.021	0.042	0.217**	1

**. Significant at the 0.05 level (2-tailed). **. Significant at the 0.01 level (2-tailed).*

5.2- Regression analyses

Table 4, panel A reports the results of OLS regression regarding all the variables and their effects on ROA, which is the dependent variable. Panel B performs the same regression with Q ratio as the dependent variable. In model 1, the dependent variable (ROA in panel A and Q in panel B) is regressed in terms of the control variables leverage (LEVERAGE), firm size (SIZE), year dummies, and industry dummies. Panel A shows that the variable firm size (SIZE) is positive and significant with ($p<.05$), suggesting that larger firms tend to perform better financially. However, the variable becomes insignificant in the other models. Leverage, on the other hand is negatively related with firm performance, as shows the negative correlation in most models, with ($p<.05$) in model 2, model 3, model 4, and model 7, and significant at 1% in model 6. In panel B, when Q ratio is used as dependent variable, both the coefficient of firm size and leverage are negative and significant in all models.

Model 2 includes CSR together with the control variables. In panel A, the coefficient of CSR is positive and significantly related with firm performance ($r=0.03$, $t=3.97$, $p<.01$). This relationship holds true in almost all the models, except in model 5, when management ownership is included in the regression. The significance level drops to 10% in model 8, when all the variables are controlled for. In panel B, the same positive relationship can be observed between CSR and Q ratio, with even higher significance levels. The coefficient of CSR is significant at 1% level in model 2, model 3, model 4, model 5, and model 7, and significant at 5% level in model 8. This positive coefficient provides support for the first hypothesis which suggests that there is a positive relationship between CSR and firm performance. It is also in line with previous studies that reported a positive link between the two variables (Waddock and Graves, 1997; Surroca et al., 2010; El Ghoul et al., 2011; Reverte, 2012).

Model 3, model 4, model 5, model 6, and model 7 control each of the corporate governance variables one by one, and finally Model 8 includes all of the variables at the same time. In panel A, the variable board size (BOARD_SIZE) is insignificant. In panel B, the coefficient for board size is significant at 10% level in model 3. However, it becomes insignificant in model 8 when all variables are included, thus suggesting that there is no relationship between firm performance and the number of directors on the board. Board independence (BOARD_IND) is significant and positively related to firm performance in both panel A - ($r=.11$, $t=2.23$, $p<.05$) in model 4, and ($r=.21$, $t=3.04$, $p<.01$) in model 8 - and panel B ($r=1.70$, $t=2.20$, $p<.05$) in model 4, and ($r=1.68$, $t=2.06$, $p<.05$) in model 8. A positive relationship can be explained by the fact that a greater number of independent directors increases the efficiency of the board to oversight the management of the firm and help it make decisions that would maximize firm value.

The variable ownership concentration (OWN_CON) is not significant in any model of panel A, and panel B shows similar results. This suggests that there is no relationship between ownership concentration of large block holders and firm performance.

On the other hand, management ownership (OWN_MNG) is negatively correlated with ROA in panel A. The coefficient is significant at 1% level in model 6 and 5% level in model 8. A negative coefficient supports the management entrenchment theory, which stipulates that managers that own more equity in the firm will also gain more control. As such, it becomes more difficult to monitor and control managerial actions, and this situation would then allow them to pursue their private interests at the costs of those of the other stakeholders. However, the coefficient of management ownership becomes insignificant in panel B, when Q ratio is used as a dependent variable. Regarding the coefficient of institutional ownership (OWN_INST), it turn out to be significant in both panel A and panel B. The significant results suggest that the presence of institutional investors holding shares in a firm is positively related to the firm performance.

Overall, model 8 shows that most of our variables are related to firm performance, as suggest the significant coefficients. The purpose of this thesis is to investigate the nature of the relationship between the corporate governance variables, CSR, and firm performance. I will examine this matter in the following regressions, which will include interactions among the variables.

Table 4: OLS regression

Panel A: *ROA as dependent variable*

	Model 1 ROA	Model 2 ROA	Model 3 ROA	Model 4 ROA	Model 5 ROA	Model 6 ROA	Model 7 ROA	Model 8 ROA
CSR^{L}		0.034***	0.033***	0.037***	0.038***	0.018	0.040***	0.030*
		(3.18)	(3.18)	(3.25)	(3.18)	(1.57)	(3.02)	(1.81)
BOARD_SIZE			0.002					-0.001
			(0.67)					(-0.30)
BOARD_IND				0.113**				0.206***
				(2.23)				(3.04)
OWN_CON					0.002			0.032
					(0.09)			(1.16)
OWN_MNG						-0.279***		-0.288**
						(-3.71)		(-2.33)
OWN_INST							0.113***	0.079**
							(3.34)	(2.12)
$SIZE^{L}$	0.013**	-0.004	-0.005	-0.005	-0.004	-0.002	-0.005	-0.005
	(2.21)	(-1.06)	(-1.15)	(-1.37)	(-1.03)	(-0.51)	(-1.44)	(-0.75)
LEVERAGE	-0.082*	-0.102**	-0.101**	-0.097**	-0.128***	-0.063	-0.093**	-0.081
	(-1.81)	(-2.34)	(-2.30)	(-2.27)	(-2.65)	(-1.25)	(-2.07)	(-1.40)
_cons	0.033	0.0082	0.009	-0.075	0.014	0.044	-0.110*	-0.201**
	(0.81)	(0.21)	(0.23)	(-1.35)	(0.28)	(1.09)	(-1.72)	(-2.51)
Year dummies	YES	YES	YES	YES	YES	YES	YES	YES
Indust dummies	YES	YES	YES	YES	YES	YES	YES	YES
N	327	261	256	256	223	226	237	182
adj. R^2	0.048	0.154	0.145	0.159	0.202	0.162	0.160	0.235

Dependent variable: ROA. ^{L} *Log transformed variables. The t-values are in parentheses. *, ** and *** denote significance levels at the 10%, 5% and 1%, respectively. See Table 1 for the definitions of the variables*

Panel B: *Q ratio as dependent variable*

	Model 1 Q	Model 2 Q	Model 3 Q	Model 4 Q	Model 5 Q	Model 6 Q	Model 7 Q	Model 8 Q
CSR^{L}		0.317***	0.280***	0.357***	0.379***	0.254*	0.367***	0.470**
		(2.76)	(2.68)	(2.83)	(2.85)	(1.88)	(2.73)	(2.27)
BOARD_SIZE			0.068*					0.094
			(1.90)					(1.61)
BOARD_IND				1.702**				1.682**
				(2.20)				(2.06)
OWN_CON					-0.527			-0.151
					(-1.27)			(-0.34)
OWN_MNG						-1.345		0.390
						(-1.40)		(0.20)
OWN_INST							0.942***	0.918*
							(3.08)	(1.82)
$SIZE^{L}$	-0.098**	-0.072**	-0.140***	-0.097***	-0.079**	-0.044	-0.096***	-0.202**
	(-2.08)	(-2.31)	(-2.96)	(-2.79)	(-2.27)	(-1.30)	(-2.96)	(-2.39)
LEVERAGE	-2.481***	-2.374***	-2.404***	-2.337***	-2.758***	-2.503***	-2.333***	-3.041***
	(-4.01)	(-3.56)	(-3.55)	(-3.62)	(-3.56)	(-3.08)	(-3.42)	(-3.16)
_cons	2.388***	0.905***	0.935***	-0.229	1.367**	1.050***	0.693	-0.133
	(6.50)	(2.62)	(2.71)	(-0.36)	(2.38)	(2.72)	(1.45)	(-0.18)
Year dummies	YES	YES	YES	YES	YES	YES	YES	YES
Indus dummies	YES	YES	YES	YES	YES	YES	YES	YES
N	296	255	250	250	219	225	241	181
adj. R^2	0.334	0.331	0.331	0.338	0.352	0.332	0.338	0.380

Dependent variable: Q ratio. ^{L} *Log transformed variables. The t-values are in parentheses. *, ** and *** denote significance levels at the 10%, 5% and 1%, respectively. See Table 1 for the definitions of the variables*

Interaction effects

This study investigates the moderating role of corporate governance mechanisms in the relationship between CSR and firm performance. I developed 5 hypotheses pertaining to the nature and direction of that relationship. I perform an OLS regression including interaction effects between CSR and board size in model 1 to test hypothesis 2, CSR and board independence in model 2 for hypothesis 3, CSR and ownership concentration in model 3 for hypothesis 4, CSR and management ownership in model 4 for hypothesis 5, and finally the interaction between CSR and institutional ownership in model 5 to test hypothesis 6. The regression in model 7 includes the interaction terms altogether. Panel A of table 5 presents the results of the regression with ROA as dependent variable, and panel B reports the results with Q ratio as dependent variable.

The coefficient of CSR is positive and significant in both panel A and panel B, across all models, again showing supports for the first hypothesis, which stipulates a positive effect of CSR on firm performance. The second hypothesis states that board size strengthens the relationship above mentioned, because a larger board would have a higher monitoring power, and thus would prevent management from engaging in value-destroying CSR activities. Scholars such as Brown et al. (2006) and de Villiers et al., (2011) have shown that firms with larger boards of directors exhibit higher social performances. In panel A, the coefficient of the interaction term between CSR and board size is positive and significant in model 1 ($r=.016$, $t=2.11$, $p<.05$). However, it becomes insignificant in model 6, when all variables are included. In Panel B, the coefficient is insignificant in both model 1 and model 6, hence refuting the second hypothesis. A moderating role of board size can therefore not be supported in the Dutch context.

The third hypothesis stipulates that board independence plays a moderating role in the CSR-firm performance relationship. A moderating role could be expected as independent directors are less prone to conflict of interests and can, therefore, ensure that the management is acting in the best interest of the company and thus would invest in CSR only if it adds value to the firm. Consistent with our hypothesis, the coefficients of the interaction effect in panel A is positive and significant ($r=.03$, $t=3.12$, $p<.01$) in model 2, and ($r=.02$, $t=2.60$, $p<.05$) in model 6, but also in panel B ($r=.22$, $t=2.13$, $p<.05$) in model 2 and ($r=.23$, $t=2.05$, $p<.05$) in model 6. The statistically significant results across both panels provide support for the third hypothesis and are in line with previous studies which found that board independence positively affects CSR engagement, which in return is positively related to firm value (Jo and Harjoto, 2011; Mallin et al., 2013).

The fourth hypothesis predicts that the effect of CSR on financial performance is stronger when ownership in the firm is concentrated, that is, there is the presence of large block holders owning the majority of equity shares within the company. Such presence of large block holders suggests a stronger monitoring power from investors over the firm's managerial decisions, as they try to protect their investment. Also, such investors are more likely than small ones to actively express their concerns regarding the firm strategies. As such, management would take into account the interests of these large shareholders and thus would be less likely to invest in CSR for opportunistic reasons. In model 3 of panel A, the coefficient of the interaction term between CSR and ownership concentration is negative and significant at 10% level. However, this coefficient becomes

insignificant in model 6 when all interaction terms are included. Panel B also, reports similar results, hence refuting the hypothesis 4.

The fifth hypothesis relates to ownership management and how it may affect the CSR-financial performance relationship. CSR benefits are believed to happen in the long-run, however, the entrenchment hypothesis suggests that managers' interests are more short-term rather than long-term oriented. As such, they tend to reduce considerably the firm investments in CSR. Such results were confirmed by many scholars, who found a negative relationship between CSR and management ownership (Barnea and Rubin, 2010, Oh et al., 2011, McGuire et al., 2012). However, another line of argument suggests that management ownership actually aligned managers' interests with those of shareholders. As such, managers would make decisions that increase the firm long-term value, including investments in CSR. Panel A of table 5 shows that the coefficient of management ownership (OWN_MNG) is negatively related to firm performance at 1% significance level. However, the interaction term with CSR and management ownership shows no statistical significance in both model 4 and model 6. In panel B, when Q ratio is used as dependent variable, the coefficient of the interaction term becomes negative and significant at 5% level in both model 4 and model 6. This empirical evidence thus provides only partial support for hypothesis 5a.

The sixth and last hypothesis assumes that the presence of long-term institutional owners in a firm strengthens the effect of CSR on firm performance. Institutional owners have different investment horizons (Johnson and Greening, 1999). While the short-term oriented institutional investors do not generally get involved in the firm's decisions because of the ease at which they can sell their shares and search for a more profitable stock, institutional investors with long-time horizons adopt a more active stance towards the firms in which they invest. Because such investors are in for the long-run, they consider worthwhile to allocate time and resources in the firm to ensure that management makes decisions that are in the best interests of the shareholders, including undertaking value-creating CSR investments (Neubaum and Zahra, 2006). The coefficient of the interaction term between CSR and institutional ownership, however, is not statistically significant in model 6 of both panel A and panel B, thus refuting the sixth hypothesis.

Table 5: OLS regression with interaction terms

Panel A: *ROA as dependent variable*

	Model 1 ROA	Model 2 ROA	Model 3 ROA	Model 4 ROA	Model 5 ROA	Model 6 ROA
CSR^{L}	0.042**	0.032**	0.027*	0.029*	0.033**	0.034**
	(2.38)	(2.01)	(1.71)	(1.79)	(2.07)	(2.19)
BOARD_SIZE	-0.002	0.001	-0.000	-0.001	-0.001	0.001
	(-0.54)	(0.16)	(-0.02)	(-0.34)	(-0.34)	(0.12)
BOARD_IND	0.195***	0.193***	0.181***	0.206***	0.225***	0.186***
	(2.94)	(2.96)	(2.70)	(3.03)	(3.26)	(2.85)
OWN_CON	0.022	0.046	0.044	0.032	0.034	0.049*
	(0.79)	(1.64)	(1.40)	(1.15)	(1.22)	(1.69)
OWN_MNG	-0.206*	-0.181	-0.405***	-0.393**	-0.327**	-0.389**
	(-1.74)	(-1.27)	(-3.14)	(-2.49)	(-2.45)	(-2.35)
OWN_INST	0.103***	0.119***	0.092**	0.079**	0.087**	0.136***
	(2.77)	(2.86)	(2.38)	(2.13)	(2.38)	(3.39)
CSR * BORD_SIZE	0.016**					0.005
	(2.11)					(0.57)
CSR * BOARD_IND		0.026***				0.023**
		(3.12)				(2.60)
CSR * OWN_CON			-0.022*			-0.014
			(-1.97)			(-1.27)
CSR * OWN_MNG				-0.005		-0.006
				(-0.89)		(-0.83)
CSR * OWN_INST					0.015**	0.009
					(2.04)	(1.20)
$SIZE^{L}$	-0.007	-0.010	-0.006	-0.005	-0.005	-0.011
	(-1.14)	(-1.30)	(-0.88)	(-0.77)	(-0.70)	(-1.40)
LEVERAGE	-0.071	-0.094*	-0.082	-0.082	-0.070	-0.083
	(-1.20)	(-1.66)	(-1.44)	(-1.40)	(-1.17)	(-1.40)
_cons	-0.230***	-0.164**	-0.185**	-0.193**	-0.238***	-0.181**
	(-2.81)	(-2.29)	(-2.54)	(-2.47)	(-3.01)	(-2.52)
Year dummies	YES	YES	YES	YES	YES	YES
Industry dummies	YES	YES	YES	YES	YES	YES
N	182	182	182	182	182	182
adj. R^2	0.243	0.276	0.258	0.231	0.237	0.279

*^{L} Log transformed variables. The t-values are in parentheses. *, ** and *** denote significance levels at the 10%, 5% and 1%, respectively. See Table 1 for the definitions of the variables*

Panel B: *Q ratio as dependent variable*

	Model 1 Q	Model 2 Q	Model 3 Q	Model 4 Q	Model 5 Q	Model 6 Q
CSR^{L}	0.561***	0.485**	0.438**	0.424**	0.492**	0.473**
	(2.74)	(2.40)	(2.23)	(2.04)	(2.45)	(2.58)
BOARD_SIZE	0.086	0.111*	0.104*	0.088	0.093	0.103
	(1.43)	(1.74)	(1.70)	(1.51)	(1.58)	(1.50)
BOARD_IND	1.586*	1.569**	1.463*	1.680**	1.815**	1.465*
	(1.96)	(2.03)	(1.87)	(2.06)	(2.24)	(1.96)
OWN_CON	-0.238	-0.033	-0.053	-0.164	-0.134	-0.048
	(-0.54)	(-0.08)	(-0.12)	(-0.37)	(-0.30)	(-0.12)
OWN_MNG	1.044	1.311	-0.610	-4.783*	0.118	-4.711*
	(0.55)	(0.57)	(-0.34)	(-1.77)	(0.06)	(-1.71)
OWN_INST	1.118**	1.265**	1.033**	0.933*	0.972*	1.450***
	(2.24)	(2.26)	(2.11)	(1.96)	(1.88)	(2.88)
CSR * BORD_SIZE	0.130					0.066
	(1.53)					(0.58)
CSR * BOARD_IND		0.226**				0.231**
		(2.13)				(2.05)
CSR * OWN_CON			-0.185*			-0.071
			(-1.69)			(-0.68)
CSR * OWN_MNG				-0.241**		-0.276**
				(-2.57)		(-2.56)
CSR * OWN_INST					0.102	0.026
					(1.24)	(0.32)
$SIZE^{L}$	-0.222***	-0.242**	-0.209**	-0.216**	-0.200**	-0.272***
	(-2.62)	(-2.52)	(-2.43)	(-2.54)	(-2.34)	(-2.78)
LEVERAGE	-2.958***	-3.147***	-3.046***	-3.068***	-2.963***	-3.121***
	(-3.04)	(-3.24)	(-3.19)	(-3.19)	(-3.02)	(-3.05)
_cons	-0.358	0.180	0.008	0.252	-0.398	0.500
	(-0.48)	(0.26)	(0.01)	(0.33)	(-0.54)	(0.66)
Year dummies	YES	YES	YES	YES	YES	YES
Industry dummies	YES	YES	YES	YES	YES	YES
N	181	181	181	181	181	181
adj. R^2	0.380	0.392	0.385	0.385	0.377	0.393

*[L] Log transformed variables. The t-values are in parentheses. *, ** and *** denote significance levels at the 10%, 5% and 1%, respectively. See Table 1 for the definitions of the variables*

5.4- Robustness tests

5.4.1- Subsample analysis

The sample in this thesis comprises 375 firm-year observations distributed into 9 industries. However, the largest part includes firms in the manufacturing industry, reaching almost 40% of the total observations. As such, I conduct an analysis involving only manufacturing firms as a robustness test to check whether the results still hold within this subsample. The accounting-based measure, ROA, and market-based measure, Q ratio are used in model 1 and model 2 respectively as dependent variables. The results are reported in table 6.

Again, the findings correspond to those of the baseline model in table 4. The coefficient of CSR is positive and significant ($r=.06$, $t=2.4$, $p<0.05$) in model 1, when ROA is used as a dependent variable, and ($r=.75$, $t=2.38$, $p<0.05$) in model 2 when Q ratio is used as the dependent variable. The interaction term between CSR and board independence is consistently significant in both models at 1% level. This significant result was also observed in all the previous regressions, thus providing strong support for our third hypothesis. This suggests that board independence does indeed moderate the relationship between CSR and financial performance. The interactions between CSR and board size, CSR and ownership concentration, and CSR and institutional ownership are insignificant in both model 1 and model 2, again consistent with the results of the baseline model. Hypothesis 2, 4, and 6 can therefore not be confirmed.

As pertaining to the coefficient of the interaction between CSR and ownership management, it is insignificant when ROA is used as a dependent variable. However, it becomes significant and negative ($r=-0.56$, $t=-2.94$, $p<.01$) when Q ratio is used. This was also observed in previous regressions that involved the full sample. These mix results do not allow me to draw clear conclusions regarding hypothesis 5, as I find only partial support. The moderating role of ownership management in the relationship between CSR and financial performance can thus not be confirmed.

Table 6: OLS regression with manufacturing firms subsample

	Model 1 ROA	Model 2 Q
CSR^{L}	0.059**	0.753**
	(2.40)	(2.38)
BOARD_SIZE	0.013**	0.320***
	(2.15)	(3.09)
BOARD_IND	0.116	0.080
	(1.50)	(0.07)
OWN_CON	0.007	-0.858
	(0.10)	(-0.82)
OWN_MNG	-0.257	-4.773
	(-0.78)	(-0.79)
OWN_INST	0.228**	4.511***
	(2.37)	(3.58)
CSR * BORD_SIZE	-0.004	0.069
	(-0.24)	(0.31)
CSR * BOARD_IND	0.030***	0.537***
	(2.75)	(3.07)
CSR * OWN_CON	-0.014	-0.021
	(-1.07)	(-0.14)
CSR * OWN_MNG	-0.012	-0.562***
	(-0.90)	(-2.94)
CSR * OWN_INST	-0.003	-0.030
	(-0.22)	(-0.17)
$SIZE^{L}$	-0.028**	-0.670***
	(-2.07)	(-3.41)
LEVERAGE	-0.249***	-5.943***
	(-3.07)	(-3.89)
_cons	-0.053	3.270*
	(-0.35)	(1.77)
Year dummies	YES	YES
Industry dummies	NO	NO
N	82	82
adj. R^2	0.330	0.529

*[L] Log transformed variables. The t-values are in parentheses. *, ** and *** denote significance levels at the 10%, 5% and 1%, respectively. See Table 1 for the definitions of the variables*

5.4.2- Analysis with lagged variables

Some researchers argue that one must account for endogeneity when examining the relationship between CSR and financial performance, as better performing firms are more likely to engage in CSR (Jo and Harjoto, 2011). Others posit that endogeneity should not be an issue because the probability of a short-term financial slack causing a long-term CSR commitment is very small (Gregory et al., 2013). In order to control for the impact of endogeneity, I set the data as a panel data, allowing to study the variables across time, and thus create a one-year lag CSR variable. Interaction terms with the corporate governance variables are also created using the lagged CSR variable. The results of the regression are presented in table 7.

Again, the outcome is consistent with that of table 4. The coefficient of CSR, although still significant, drops from 5% level in the baseline model to 10% level in table 7, when a lagged CSR variable is used. This drop is observed in both model 1 and model 2, when different proxies for firm performance are used. Among the interaction terms, only the one with CSR and board independence is statistically significant ($r=.02$, $t=2.19$, $p<.05$) in model 1 and ($r=.26$, $t=1.73$, $p<.1$) in model 2. The significance still holds, even after the use of a lagged CSR variable to control for endogeneity. Moreover, in line with the results from the previous tables, the interaction term between CSR and management ownership is insignificant when ROA is used as a dependent variable, and significant and negative ($r=-0.36$, $t=-2.33$, $p<.05$) when Q ratio is used. With regards to the other interaction terms, they remain insignificant both in model 1 and model 2.

Overall, using lagged variables did not have much of an impact on the results of the regression, as the direction and strength of the relationships in table 8 mostly resemble those in table 6. Hence, endogeneity does not seem to play a major role in the CSR-firm performance relationship. The reason may be that firms engaging in CSR because of a financial slack at a given year are not likely to sustain such investments. And as Barnett and Salomon (2012) point out, CSR is a long-term investment and benefits ensue when firms have been committed in CSR practices for a long time. Therefore, we can argue that the causality goes from CSR to financial performance and not vice versa.

Table 7: OLS regression with lagged variables

	Model 1 ROA	Model 2 Q
CSRlag	0.028*	0.405*
	(1.80)	(1.81)
BOARD_SIZE	-0.002	0.078
	(-0.36)	(1.00)
BOARD_IND	0.217***	1.647*
	(3.05)	(1.79)
OWN_CON	0.064**	0.070
	(2.00)	(0.15)
OWN_MNG	-0.780***	-8.546**
	(-3.29)	(-2.38)
OWN_INST	0.139***	1.302**
	(2.83)	(2.20)
CSRlag * BORD_SIZE	0.001	-0.059
	(0.03)	(-0.35)
CSRlag * BOARD_IND	0.022**	0.265*
	(2.19)	(1.73)
CSRlag * OWN_CON	-0.027	-0.216
	(-2.26)	(-1.27)
CSRlag * OWN_MNG	-0.020	-0.364**
	(-2.38)	(-2.33)
CSRlag * OWN_INST	-0.001	0.002
	(-0.01)	(0.01)
$SIZE^L$	-0.012*	-0.242**
	(-1.80)	(-2.29)
LEVERAGE	-0.096	-3.182**
	(-1.55)	(-2.33)
_cons	-0.164**	0.770
	(-2.04)	(0.77)
Year dummies	YES	YES
Industry dummies	YES	YES
N	143	142
adj. R^2	0.361	0.374

*[L] Log transformed variables. The t-values are in parentheses. *, ** and *** denote significance levels at the 10%, 5% and 1%, respectively. See Table 1 for the definitions of the variables.*

6- Conclusions

In this chapter, I first summarize the main findings with consideration of the theories. Then, I discuss some limitations pertaining to this thesis before mentioning a couple of recommendations for future research.

6.1- Summary of findings

This thesis investigates the moderating role of corporate governance in the relationship between CSR and financial performance in a Dutch context. Using a sample of the 75 firms listed on the AEX, AMX, and AScX index from 2012 to 2016, I find a positive effect of CSR on ROA, and CSR and Q ratio, which are both used as proxies for firm performance. Moreover, the interaction term between CSR and board independence is positive and significant, while the interaction term between CSR and management ownership is negative and significant only when Q is used as a dependent variable. As pertaining to the predictions regarding the moderating roles of board size and ownership concentration, and institutional ownership, the results were inconclusive.

We can derive the following theoretical implications from the findings. Some researchers argue that CSR is a waste of organization resources (Friedman, 1970). Some others claim that investments in CSR lead to better financial performance (Freeman, 1984). The positive impact of CSR on firm performance found in this research is consistent with the stakeholder theory of Freeman (1984). This theory stipulates that firms engaging in CSR will experience improved relationships with their various stakeholders, which as a result ameliorate the financial performance of the firms. Many studies realized on US firms or at a global level have found empirical evidence in support of the stakeholder theory (Waddock and Graves, 1997; Hillman and Keim, 2001; Surroca et al., 2010; Barnett and Salomon, 2012). This study realized on large Dutch companies is no different and suggests that the positive impact of CSR on financial performance also holds true in a Dutch context, thus confirming hypothesis 1.

There are no empirical results in support of hypothesis 2, which predicts that board size strengthens the positive effect of CSR on financial performance. The interaction term between CSR and board size was insignificant in all models. Such results can be explained in light of the studies claiming that large boards foster more bureaucracy and ineffective communication among the different board members, thus leading to a slower decision-making process (Agrawal and Cooper, 2016). This situation induces a limited ability of the board to influence management actions and to encourage them, for instance, in engaging in value-creating CSR. Gonzalez and Meca (2014) found that larger boards are negatively related to their capacity to monitor management behavior. These results are also in line with studies that found no relationship between board size and the corporate social performance of firms (Hafsi and Turgut, 2013; Walls et al., 2012, Ntim and Soobaroyen, 2013b)

As pertaining to hypothesis 3 and the interaction term between CSR and board independence, it is found to be positive and significant, thus suggesting a moderating role of board independence on the CSR-firm performance relationship. The results are in line with agency theory, which argues that independent directors, sharing no ties with the executives of the firm, are less subject to conflict of interests. As a result, such directors are better able to oversee management decisions and prevent them from investing in value destroying CSR activities. The results are also consistent with previous research which shows with empirical evidence that board independence is positively related with firms' social performance (Jo and Harjoto, 2011; Mallin et al., 2013, de Villiers et al., 2011). As Mallin et al. (2011) suggested, independent directors take into consideration all stakeholders' expectations in order to increase their prestige and role in society, therefore, are more inclined to encourage the company to undertake value-creating CSR activities.

In contrast, the results were inconclusive regarding hypothesis 4, which stipulates that ownership concentration strengthens the positive effect of CSR on financial performance. The theoretical argument is that the presence of large block holders increases the monitoring power of investors over a company's management. Kim et al. (2007) suggest that ownership concentration may be a substitute for weak shareholder protection laws, however, the Netherlands already has strong laws. As such, a possible explanation for the insignificant result is that the power of large block holders to control firms may be reduced as there are strong laws in place to prevent them in doing so. In addition, these large block holders may have different attitudes in regards to CSR, so a high ownership concentration does not guarantee better social performance.

On the other hand, partial support was found for hypothesis 5, stipulating a moderating role of management ownership. The interaction term between CSR and management ownership was statistically insignificant in all models involving ROA as dependent variable. However, when Q ratio is used as dependent variable, the interaction term becomes negative and highly significant, suggesting that management ownership weakens the impact of CSR on firm value. There are two theoretical perspectives related to the impact of management ownership in the CSR – firm performance relationship. The alignment hypothesis states that, as the equity ownership of the management of a firm increases, its interests become more aligned with those of shareholders. As such, managers would make the best decisions to maximize shareholders wealth. The second perspective pertains to the entrenchment theory, which stipulates that a higher equity ownership of management allows managers to gain more power and makes it more difficult to control their actions. This would permit them to pursue their own interests at the expense of the other stakeholders. The negative coefficient of the interaction term between CSR and management ownership when Q ratio is used as dependent variable provides support for the entrenchment theory.

Finally, the results were inconclusive regarding hypothesis 6, which assumes a moderating role of long-term institutional ownership in the CSR – financial performance relationship. Institutional investors have become a major monitoring tool of corporate governance over the past decade. Their superior monitoring power is demonstrated in

many studies (Brickley et al., 1988; Neubaum and Zahra, 2006; Jo and harjoto, 2011; Oh et al., 2011). However, DeJong et al. (2005) argue that Dutch financial institutions exhibit a rather passive attitude towards the firms in which they own shares. Because of their passive attitude, they are less likely to get involved in the portfolio firms' decision and pressure the management to engage in long-term value creating CSR. This may explain the insignificant results observed in this thesis.

Overall, the results remain robust to a variety of sensitivity tests including alternative methods of measurement of the variables, subsample testing, and the use of lagged measures. In fact, some scholars argue that endogeneity must be accounted for when investigating the CSR-firm performance relationship. As such, I used a lagged CSR variable to account for endogeneity. The results were mostly consistent with those of the baseline model, suggesting that endogeneity does not play a major role. This is in line with Gregory et al. (2013) who claim that endogeneity is not an issue as there is a very small probability that a short-term financial slack would inspire a long-term CSR commitment.

6.2- Limitations and recommendations

Despite the many insights it provides, this study is not without caveats. First, the study was conducted in the Dutch context. The Netherlands is known for its particular structured regime of corporate governance, with a two-tier board structure different from the Anglo-Saxon system. As such, replication of this research in other countries may produce different results. For instance, the lack of empirical results in support of a moderating role of ownership concentration in the relationship between CSR and financial performance may turn out to be statistically significant in a country with weak laws, where block holders have more power to influence management decisions. Therefore, generalization of this study may be an issue. Future research needs to extend this investigation by conducting it in countries with different corporate governance features or institutional settings.

Second, this study includes 2 board characteristics (board size and board independence) and 3 ownership structures (ownership concentration, management ownership, and institutional ownership) in investigating the moderating role of corporate governance in the CSR-financial performance relationship. In order to improve our understanding of the role of corporate governance, future research may include additional corporate governance mechanisms, such as state ownership or foreign ownership. It would also be interesting to gain a better comprehension of the impact of CEO duality on the relationship between CSR and financial performance, as this mechanism could not be investigated in the Dutch context.

Third, many studies have shown that there is a link between corporate governance and CSR, however, I do not take this relationship into account in this study. Failing to do so may have impacted our results. I leave this important issue to future research. Another limitation pertains to the measurement of CSR. The transparency benchmark rates firms based on the quality of their CSR disclosures, however, the information disclosed may be

different from the firm's genuine CSR performance, thus undermining our results. Fourth, even though our total firm-year observations was 375, it barely reached 200 in our regressions, due to missing data. As such, future research involving a much larger sample size should be worthwhile.

Finally, this study controls for endogeneity using a 1 year time period lag. It could be useful for future research to consider lags other than 1-year time period, or estimation methods such as the two-staged least square to account for endogeneity, thus providing more clarity on this issue.

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Appendices

Appendix 1: List of firms in the study

AEX index	AMX index	AsCX index
AALBERTS INDUSTR	AIR FRANCE -KLM	ACCELL GROUP
ABN AMRO Group	APERAM	AMG
AEGON	ARCADIS	AMSTERDAM COMMOD.
AHOLD DEL	ASM INTERNATIONAL	AVANTIUM
AKZO NOBEL	ASR NEDERLAND	BASIC-FIT
ALTICE	BAM GROEP KON	BETER BED
ARCELORMITTAL SA	BE SEMICONDUCTOR	BINCKBANK
ASML HOLDING	CORBION	BRUNEL INTERNAT
BOSKALIS WESTMIN	EUROCOMMERCIAL	FAGRON
DSM KON	FLOW TRADERS	FORFARMERS
GALAPAGOS	FUGRO	HEIJMANS
GEMALTO	GRANDVISION	HUNTER DOUGLAS
HEINEKEN	IMCD	ICT GROUP
ING GROEP N.V.	INTERTRUST	KAS BANK
KPN KON	OCI	KENDRION
NN GROUP	PHILIPS LIGHTING	KIADIS
PHILIPS KON	POSTNL	LUCASBOLS
RANDSTAD	REFRESCO GROUP	NEDAP
RELX	SLIGRO FOOD GROUP	NSI N.V.
ROYAL DUTCH SHELLA	TKH GROUP	ORDINA
SBM OFFSHORE	TOMTOM	PROBIODRUG
UNIBAIL-RODAMCO	VASTNED	SIF HOLDING
UNILEVER DR	WDP	STERN GROEP
VOPAK	WERELDHAVE	TAKEAWAY
WOLTERS KLUWER	WESSANEN	V LANSCHOT KEMPEN

Appendix 2: Collinearity Diagnostics

Dep Var (ROA)	VIF	1/VIF
CSR	1.41	0.70
BOARD_SIZE	2.62	0.38
BOARD_IND	1.32	0.76
OWN_CON	1.30	0.76
OWN_MNG	1.26	0.79
OWN_INST	1.03	0.97
LEVERAGE	1,25	0,79
SIZE	2.76	0.36
Mean VIF	1,62	

Dep Var (Q ratio)	VIF	1/VIF
CSR	1.41	0.70
BOARD_SIZE	2.62	0.38
BOARD_IND	1.31	0.76
OWN_CON	1.30	076
OWN_MNG	1.26	0.79
OWN_INST	1.03	0.97
LEVERAGE	1.25	0.80
SIZE	2.75	0.36
Mean VIF	1.62	