# Sustainability performance and CEO compensation in the Netherlands

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#### Abstract

Using the ESG-score as a corporate sustainability performance measurement the relationship between CEO compensation components and sustainability performance is investigated. Furthermore, the link between sustainability incentives, sustainability governance and high environmental and social impact companies is considered. In conclusion, the sustainability performance measured by the ESG score, show no significant results on the CEO compensation components in The Netherlands. High environmental and social impact companies are not more likely to include sustainability incentives in the compensation contract. External sustainability reporting neither has a significant effect on the presence of sustainability incentives. The results showed a negative marginal effect of sustainability committees on including sustainability incentives. This can be explained by the same cause sustainability committees and incentives serve, they are expected to be substitutions for each other.

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The views stated in this thesis are those of the author and not necessarily those of Erasmus School of Economics or Erasmus University Rotterdam.

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## INTRODUCTION

Air pollution, burning fossil fuels, polluted drinking water & deforestation are just a few examples of the changes the world has gone through the past decades. Most of them caused by companies increasing their profits without looking at the consequences. It has become clear that the world needs to be treated differently, with an increased interest in sustainability. Sustainability is meeting the needs of the present, without compromising the ability of future generations to meet their needs (Grant, 2020). Since 1992 the United Nations is working on a sustainable development plan to improve human lives and protect the environment (SDG, 2020). In 2015 they released Sustainability Development Goals (SDG) which they want to realize by 2030. Among them are goals for good health and well-being, gender equality, clean water and sanitation, sustainable cities and communities, and responsible consumption and production. Even before implementation of the SDG, several companies already showed their dedication to sustainability. In 2012 the Dutch Sustainable Growth Coalition, DSGC, was launched. This is a coalition of 8 CEO's combining their forces to integrate sustainability within their business models (DSGC, 2020A). Among them are Shell, KLM, Philips and Unilever. Since 2012 several projects have been set up to meet the SDG. Development of biofuel, a solar energy program and even a handwashing program to improve global health through better hygiene are just a few examples (DSGC, 2020B). In 2019 the Netherlands was ranked 7<sup>th</sup> in Europe's Sustainable Development Report (SDSN & IEEP, 2019). On that account, it is fairly considerable that the Netherlands will reach her SDG by 2030.

Sustainability strategies can be enforced using legislation however companies can also use it to manage image and reputation, or as a result of a personally motivated manager to "make a change" (Hemingway & Maclagan, 2004). They are risky and set over the long term. Yet the literature is not concordant about the relationship between compensation and sustainability performance, as there are negative, positive and even no relations found. Using the ESG-score as a corporate sustainability performance (CSP) measurement the relationship between CEO compensation and performance will be investigated. The main research question will be:

#### What is the effect of sustainability performance on CEO compensation in the Netherlands?

The CEO compensation is a sum of several components: annual salary, bonus, equity-based compensation, long incentive plans and other benefits and perquisites. With the compensation consisting out several components, it is relevant to investigate whether there is a relation between the ESG score and the components. There is very little information available about this relation. McGuire, Dow, & Argheyd (2003) investigated the association between compensation incentives and sustainability performance. A positive association between incentives and weak sustainability

performance was found. Sustainability performance was either strong, weak or poor. Using ESG-scores instead, this research can give a more accurate view. Additionally, since 2003, a lot has changed. It has become more important to acknowledge the social and environmental impact companies have and there is an increased pressure from society and other institutions to improve their impact.

Additionally, the presence of sustainability terms in the compensation contract will be discussed. Sustainability incentives can improve CSP (Berrone & Gomez-Mejia, 2009). Because sustainability incentives are an important trigger for sustainability performance it should therefore be included in this research. In sectors such as Oil & Gas, CSP is especially pressured. It is therefore investigated if these sectors with a greater social and environmental impact, more often enclose sustainability incentives within the compensation contract.

Furthermore, the link between sustainability governance and sustainability incentives will be investigated. In order to reduce information asymmetry about CSP, some companies provide sustainability reports. It is also believed that when a company reports about their sustainability, they have sustainability objectives and will more likely have sustainability incentives in the CEO compensation contract (Abdelmotaal & Abdel-Kader, 2016). Al-Shaer & Zaman (2016) investigated the connection between sustainability reporting and CEO-compensation using the presence of sustainability terms in the compensation contract. The used data was a sample of companies from the UK with data for 2011-2015. If there are sustainability terms present, the CEO will receive a higher compensation if the sustainability performance is better. In 2013 the Companies Act 2006 made his entry to the UK. This act stated that companies need to make a strategic report which also contains sustainability development, where possible (Legislation.cov.uk, 2013). In the Netherlands, sustainability reporting is still completely voluntarily. It is therefore expected that sustainability reporting will create more value in the Netherlands, than it does in the UK. It is also free to decide who will make this report, as it can be composed internally or externally. The effect of external sustainability reporting and the existence of a sustainability committee is tested on the presence of sustainability terms in the compensation contract.

In the Theoretical Framework several hypotheses will be established. The databases consulted to retrieve all necessary information can be found in Data. The models and techniques used to examine the hypotheses can be found in Methodology. In the results the descriptive statistics, correlation matrix and the regression results can be found. Finally, the answer to the main question, the limitations of this research and suggestions for further research will be discussed in the conclusion and discussion.

## THEORETICAL FRAMEWORK

## 2.1 CSR & CSP

The European Commission (2019) describes Corporate Social Responsibility (CSR) as "the responsibility of enterprises for their impacts on society. To fully meet their social responsibility, companies should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders, with the aim of maximizing the creation of shared value for their owners/shareholders and civil society at large and identifying, preventing and mitigating possible adverse impacts" (European Commission, 2019, p. 3).

Whether or not companies want to act according to CSR, is partly voluntarily. The degree of voluntariness depends on the industry the company is in, while some industries are subject to more legislation than other industries. Dummett (2006) found that the main drivers for corporate environmental responsibility are government legislative policies, or the fear of it. In the Netherlands, companies are for 80% subject to European environmental legislation (Government of the Netherlands, n.d.). Besides reducing emission of greenhouse gasses, the government is stimulating sustainable production and consumption. CSR is furthermore pressured by society. Especially millennials and Generation Z, value pro-social and environment friendly initiatives. In 2018, 75 percent of the millennials in the U.S. admitted that they want to change their buying habits in order to improve the environment, this is in contrast with only 34 percent of the baby boomers (Nielsen, 2018). Not only the demand for sustainability products is rising, the willingness to pay more for these products is rising as well. Investing in sustainability products and performance can therefore lead to a competitive advantage (Isaksson, Kiessling, & Harvey, 2014).

Due to new technology it has become easier than ever to out misconducts and to reach millions of people. A research of the U.S. found that when 4 or more media companies report about corporate social irresponsibility's, the average financial loss on the American stock exchange is 321 million dollars (Stäbler & Fischer, 2020). An example is from the fashion chain H&M which had contracts with multiple factories in Myanmar were various international labor laws were violated; child labor, overtime and underpay (Butler, 2016). Sales dropped when the word hit the news. As a company it is therefore better to anticipate by taking social responsibility and avoiding these misconducts, than pay the bill later. For now, H&M is trying to improve its position by not only improving its working conditions but also by becoming fully circular and climate positive. By disclosing information about the supply chain policies and practices, the social and environmental impact, the company is currently ranked highest in the Fashion Transparency Index 2020 which ranks over 200 fashion companies (H&M Group, 2020).

Besides managing image and reputation, Hemingway & Maclagan (2004) found that taking CSR can be a result of a personally motivated manager to "make a change". The CEO of Starbucks, Howard Schultz, who grew up in poverty, has contributed to fight against hunger in the US with his company by investing in foodbanks (Feeding America, 2016). Starbucks is very active in trying to impact the world positively from investing in renewable energy, to fair pay for farmers and producing reusable products (Starbucks, 2020).

Approximately 40% of the companies include the SDG within their sustainability strategy (KPMG, 2017). When companies take their corporate social responsibility by sustainability strategies, it is possible to measure their corporate sustainability performance (CSP), using ESG factors. This is a score for environmental, social and corporate governance based on company reported data and on a relative ESG performance with the company's sector and country of incorporation (Refinitiv, 2020).

Each year Morningstar delivers a report to discuss national ESG-indexes. Since 2017, the Netherlands is revealed as the world leader with the highest national ESG index, 58.24 (Pensions And Investments, 2018; Morningstar Inc., 2020). High scoring companies such as ASML Holding, Philips, and Ahold Delhaize contributed to this result.

#### 2.2 CSP AND FINANCIAL PERFORMANCE

What the effect is on the financial performance of a company will now be discussed. A minority of the literature found a negative or neutral relation between CSP and financial performance (McWilliams & Siegel, 2000), however the majority did find a positive relation.

Endrikat, Edeltraud & Holger (2014) found that CSP is positively correlated with financial performance. Similarly, Clarkson et al. (2011) investigated whether "it pays to be green". They concluded that if a company has the financial resources, economic benefits will be a result of an improvement in environmental performance. Hart (1995) suggests that considering natural resources constraints will lead to a competitive advantage, three environmental strategies were mentioned: 1. Pollution prevention can lead to costs reduction by installing and compliance costs reductions, however the economic profit has a two-year delay (Hart & Ahuja, 1996). Similarly, Klassen & Whybark (1999) found that environmental responsible manufacturing will have a positive effect on product quality, on-time delivery and cost. Revenue is also positively affected since companies which are known for a good CSP, can ask premium prices due to a higher consumer pay willingness (Isaksson, Kiessling, & Harvey, 2014; Hillman & Keim, 2001).

Additionally, sustainability development will require to evaluate and improve past performance, as a consequence efficiency will be stimulated (Surroca, Tribó, & Waddock, 2010). Sustainable

development also involves an active learning environment which will result in increased employee skills and employee commitment (Weber, 2008; Hart, 1995). An increased attractiveness to environmental aware employees is another competitive advantage of improving CSP (Turban & Greening, 1996).

Finally, enhanced investor relationships are another positive effect of an improved CSP. Beside lowering the cost of financial capital, this can lower market risk which has a positive effect on the financial performance (Busch & Hoffmann, 2011; Sharfman & Fernando, 2008; Lankoski, 2008; Ambec & Lanoie, 2008).

In conclusion, a better CSP will improve the financial performance of the company by reducing the cost of manufacturing, installing costs, compliance costs and the cost of capital. Additionally, market risk will be lowered. Furthermore, the company and its employees will gain knowledge and efficiency will be stimulated.

#### 2.3 CEO COMPENSATION

The CEO compensation consists of several components (Larcker & Tayan, 2008). Firstly, the fixed annual salary and the annual bonus. The annual bonus is usually cash and is awarded when the short-term performance exceeds its, often exclusively financial performance, targets (Murphy, 2000). Furthermore, a CEO can receive equity-based compensation, which is known as the long-term incentive plan. The right to buy shares in the future, stock options, is one of them. Restricted stock, stock rewards when certain conditions are met, is a second example (Chen, 2019). Besides restricted stock, performance units can also be a component of the long-term incentive plan. Performance units can either be stock or cash units rewarded when targets over a longer period of time are satisfied. It is often described as the long-term incentive plan, LTIP (Kenton, 2019). LTIP's can be awarded for financial performance measurements but also for non-financial performance targets (Banker et al., 2000). Other benefits the CEO receives can be life insurance and supplemental retirement contribution. The CEO of ABN AMRO receives a car and chauffeur, these are examples of perquisites (ABN AMRO, 2019). The value of all components combined is the total compensation.

The amount of each component and the total compensation is subject to different determinants (McKnight & Tomkins, 1999). Next this will be discussed for the total compensation, the annual bonus and the long-term incentive plan. The influence of CSP on these will additionally be discussed to make the first three hypotheses.

#### 2.3.1 CSP AND TOTAL CEO COMPENSATION

The value of the total compensation has several determinants. Firstly, it is positively affected by firm-specific aspects such as the size of the firm (Cai, Jo, & Pan, 2011). Additionally recent and previous corporate performance are determinants (Banker, Potter, & Dhinu, 2000; Zhou, 2000; Cordeiro & Veliyath, 2003). It has been showed that the financial performance will increase when the CSP increases. Therefore, it is expected that an increase in the ESG score will have a positive effect on the total CEO compensation by an improved financial performance.

It is also been found that companies with greater sustainable performances can improve shareholders wealth due to a greater return, less stock return volatility and a diminished loss during bear phases (Gómez-Bezares, Przychodzen, & Przychodzen, 2016). Increasing shareholders wealth has a positive effect on the total compensation as well. Moreover, intense internal governance by the board, will likely positively affect the CEO compensation (Cai et al., 2011; Fahlenbrach, 2009).

Each two years, the NCD (Nederlandse vereniging van Commissarissen en Directeuren) investigates the remuneration of directors and commissioners of listed and non-listed (95%) companies (NCD, 2019). In 2018 the mean of the fixed CEO compensation in the Netherlands was €139.120, the mean of the total compensation was €166.000. The factors of direction pay in the Netherlands was investigated. Difference in governance is discussed, implicating that a two-tier model; a company with a managing and supervisory board, will likely have a higher CEO compensation than a company with a one-tier model (Kamer van Koophandel, n.d.; NCD, 2019). Furthermore, they found the same firm specific determinants as mentioned before. Additionally, the direction pay is a determinant of the complexity of the work. Complexity of the company increases in certain sectors or when a company is active internationally. Moreover, implementing sustainability strategies will raise the complexity of the company. In addition to complex, sustainability strategies are risky, since they are set over the long term. According to Cordeiro & Veliyath (2003) taking risk has a positive significant effect on the total CEO compensation. Earlier it has been found that companies, with a greater interest in sustainability, more often compensate the management for the risk they take with long term sustainabile strategies (Frye et al., 2006; Berrone & Gomez-Mejia, 2009; Eccles et al., 2014).

In conclusion, it is anticipated that when a company implements sustainability strategies, the ESG score will rise. When the ESG score rises, the financial performance and shareholders wealth will be positively affected. It is likely that as a reaction the CEO will be compensated for the increased complexity and risk that is taken. With this information, the first hypothesis is made:

H1: The ESG-score has a positive effect on the total CEO compensation.

#### 2.3.2 CSP AND THE ANNUAL BONUS

The bonus is known for being paid by short-term performance measurements. Usually, at the beginnning of each year quantitive and qualititive performance targets are set to determine the compensation (Abowd & Kaplan, 1999). Quantative targets such as the EPS can be set to stimulate the financial performance. McKnight (1996) found that in the UK the annual bonus is positively associated with earnings per share. In a paper of 2007, it was argued that while the executive bonus can't be directly linked to share price, the level of bonus is (weakly) positively associated with shareholders value (Bruce et al., 2007). This is in line with a research of Mertens et al. (2007), which concluded that the bonus is determined by changes in share-holders value and the "bottom-line".

Shareholders wealth is determined by financial performance. While sustainability investments can improve financial performance, less socially responsible projects can improve the financial performance for the short-term even more (McGuire, Dow, & Argheyd, 2003). A project which will result in a lower ESG score can therefore be preferred by the CEO to not only improve its financial performance, but also its bonus.

Banker et al. (2013) found that current salary is positively correlated with future performance, however the current bonus is not. If sustainability investments pay off, they will do this over a matter of time. However, sustainability strategies do not always lead to an improved financial performance (McWilliams & Siegel, 2000), Respectively, the future added value of sustainability projects are neglictable for the annual bonus.

Additionally, qualitative targets can be customer satisfaction, product quality, a safe work environment, gender equality etc.; these are sustainability targets and often set over the long-term. Kolk & Perego (2014) investigated how sustainability performance is integrated in the executive bonus of 4 companies in the Netherlands: AkzoNobel, DSM, Shell & TNT. They found that sustainability performance can't be individually awarded since the process was collectively. The companies were at the start of putting sustainability incentives in the compensation contract and the research period was only 2010 and 2011; thus, the period was too short to determine if the sustainability targets are met, they will be awarded using the long-term incentive plans. Therefore, it is expected that reaching qualitative targets will have no effect on the bonus.

Taking all information in consideration, less sociable projects are expected to have a positive effect on the annual bonus. Sustainability investments can have an impact on the future performance and may help reaching qualitative targets, however it is concluded that this will not have an effect on the bonus. The second hypothesis is made, which is formulated as follows:

#### H2: The annual bonus is negatively correlated with the ESG-score for non-financial institutions.

Since 2015 the legislation in the Netherlands for renumeration of financial institutions has changed. For financial institutions the annual bonus is max 20% of the annual salary (Rijksoverheid, 2015). Since the bonus is limited for financial institutions, it will not be a part of the second hypothesis.

#### 2.3.3 CSP AND LONG-TERM INCENTIVE PLANS

Where bonus is awarded for short-term targets, the long-term incentive plan will only be awarded when targets over a longer period of time are met, this is often a 3-year period. With restricted stock, performance units being part of this plan, it is unlikely the whole plan is used, nonetheless the LTIP is a huge and important part of the total compensation. LTIP's are granted to reduce the agency problems between the executives and the shareholders (Westphal & Zajac, 1993)

Westphal & Zajac (1993) found that granting LTIP is dependent on the performance of the prior year, however this relation was not found in the use of the plan. The shareholders return among with relative performance of companies was found as determinants of the total LTIP awarded, however the absolute share price was not found as a determinant (Mertens et al., 2007; Jensen & Murphy, 1990).

Short-term EPS targets can be improved by less sustainable strategies (McGuire et al., 2003), however over the long-term sustainable strategies have a more positive impact on shareholders return (Gómez-Bezares et al., 2016). Since sustainability strategies also can have a positive effect on the financial performance, it is expected that a higher sustainability performance will contribute to a higher total awarded LTIP due to a better shareholders wealth and financial performance.

It is believed that executives will likely try to live up to the targets set by the LTIP, since this is a large component of the total compensation plan. Therefore, LTIP can be used to improve certain targets. Kang (2017) found that stock-based compensation is a good stimulator of CSR interested shareholders to not only raise awareness for CSR but also improve CSP. When a company has sustainability objectives, the odds of having sustainability incentives are therefore greater as well (Abdelmotaal & Abdel-Kader, 2016). A research of 2014 found that 54 percent of S&P 500 companies include sustainability incentives, however overall only 16 percent mention specific measurable metrics and only 10 percent of the companies specify sustainability targets (Cable, 2014). Even though only 16% has measurable metrics, it is still expected that the ESG-score will have a positive impact on the LTIP awarded since 54% does have sustainability incentives.

Contrastly, McGuire, Dow, & Argheyd (2003) investigated the association between compensation incentives and social performance. A positive association between incentives and weak social performance was found. Limitations of this research is that social performance was either strong,

weak or poor. Following this research, Mahone and Thorne (2005) investigated the relationship between CSR and long-term incentive plans by looking at the total CSR but also by dividing CSR in several components. This was done using CSR index, resulting in more accurate results. Earlier was mentioned that sustainability is about environmental impact which is a part of product development, in the research of Mahone and Thorne defined as the product CSR, but also about gender equality, employee satisfaction and community, in which was described as people CSR. It was found that total CSR and the product development has a significant positive effect on the LTIP awarded.

Mertens et al. (2007) also mentioned a relative performance as a determinant of the total LTIP awarded. As discussed earlier, the ESG score is also calculated as a relative performance score and is therefore expected to have a positive impact on the LTIP.

In conclusion, since most companies include sustainability incentives in the compensation contract, the ESG score is expected to have a positive effect on the LTIP awarded this is in accordance with the research of Mahone and Thorne (2005). Furthermore, when the sustainability performance is increased it is anticipated that the financial performance and shareholders wealth will increase which will have the same effect. Since relative performance is also a determinant, the ESG score will affect the LTIP positively. Overall this results in the third hypothesis:

H3: The value of the long-term incentive plan is positively correlated with the ESG-score if there are sustainability incentives.

#### 2.4 SUSTAINABILITY REPORTING

Now we will discuss sustainability reporting. In order to reduce information asymmetries, a company can choose to report about their CSP (Merkl-Davies & Brennan, 2007). Since there was a huge difference in the reports such as varying content, inconsistent and irregular in frequency, the Global Reporting Initiative (GRI) set up global reporting guidelines (Willis, 2003). Even though these guidelines and the report are voluntarily, it delivered a huge contribution by making comparison between companies easier for shareholders and analysts. Willis (2003) summarized these guidelines, overall the sustainability report is similar to an annual report in structure containing a CEO statement, executive summary, vision and strategy and key indicators. However, the key-indicators are not financially but sustainability performance indicators. Additionally, the plan to implement the strategy is discussed, for example including the stakeholder's engagement. Lastly, the report contains information about the environmental and social performance, in addition to the economic performance.

Among reducing information asymmetries, a company has more motivations to report about their CSP. Meeting the sustainability expectations of the shareholders by informing about CSP is one of them (McGuire, Dow, & Argheyd, 2003). Making more information public can also attract not only new shareholders, but also new consumers with a greater interest in CSR which can have a positive effect on the profit. Moreover, when companies report about their CSP they raise reliability and credibility (Moser & Marin, 2012).

Although sustainability reporting is voluntarily in the Netherlands, it is pressured by society and other institutions to report anyway (Young & Marais, 2012). Each 2 years KPMG looks at the rates of sustainability reporting using a sample of 100 representable companies per country, the results were that 82% of the sample reports in the Netherlands, this is relatively good compared to a global score of 75% (KPMG, 2017).

### 2.5 SUSTAINABILITY INCENTIVES & SECTORS WITH HIGH ENVIRONMENTAL AND SOCIAL IMPACT

Previously sustainability reporting was explained. It is believed that when a company reports about their sustainability, they have sustainability objectives and will more likely have sustainability incentives in the CEO compensation contract (Abdelmotaal & Abdel-Kader, 2016).

KPMG describes that sectors with a high environmental and social impact more often report about their CSP (KPMG, 2017). The following industries; Oil & Gas, Chemical, Mining, Utilities, Forest and Paper products, Beverage, Tobacco, Aerospace and Defense, are qualified as high impact industries (Patten, 1991; Patten, 2002; Deegan & Gordon, 1996; Al-Shaer & Zaman, 2019). Stimulating CSP is highly pressured within the above-mentioned sectors, which can be achieved by including sustainability incentives. In line with Abdelmotaal & Abdel-Kader, a research of 2014 found that energy and utilities companies, 9 out of 10 times will include sustainability metrics such as environmental impact and a safe workplace in the compensation plan (Cable, 2014). It is therefore expected that within this research sectors with a high environmental and social impact more often has sustainability incentives in their compensation contract, resulting in hypothesis 4.

H4: When a company has a high environmental and social impact it is more likely to include sustainability incentives in the compensation contract.

#### 2.6 SUSTAINABILITY INCENTIVES, EXTERNAL REPORTING AND SUSTAINABILITY COMMITTEES

Sustainability reports can be composed internally or externally. If they are composed internally, a distorted view is possible since sustainability reporting is not only very complex but can also be used for window dressing. When sustainability reports are composed externally, this is often done by accountants. Accountants are considered to provide a more objective and independent opinion in their reports than internal reporters would do (Knechel et al., 2006). Over a matter of time, the GRI expects all the reports to be verified independently to improve the credibility of the report (Willis, 2003). Since

sustainability behavior is highly pressured and the external reporter will give an objective report, it is important to improve the CSP of a company. Yet again, this can be stimulated by adding sustainability incentives. Therefore, it is expected that external sustainability reporting will affect the presence of sustainability incentives positively, view hypothesis 5.

H5: External sustainability reporting will have a positive effect on the presence of sustainability incentives in the compensation contract.

Secondly, sustainability committees will also provide a more accurate view on sustainable performance by being more independent (Berrone & Gomez-Mejia, 2009). This accurate view is expected to stimulate CSP and on its turn it will stimulate sustainability incentives. This resulted into the last hypothesis:

H6: Sustainability committees will have a positive effect on the presence of sustainability incentives in the compensation contract.

# Data & methodology

## 3.1 Data

For this research several databases are consulted to collect panel data of Dutch Companies for the period 2015 to 2018. With the launch of the SDG in 2015, this interval will be useful to investigate how the sustainability strategies and performance are incorporated in the CEO compensation. Panel data is a mixture of cross-sectional and timeseries data. Since there are more cross-sectional variables than timeseries, this panel is called a short panel (Park, 2011).

The Thomson Reuters Asset4 database is being consulted for sustainability performance variables. Asset4 is a database from Thomson Reuters which contains data from over 7.500 companies worldwide (Refinitiv, 2019A). Upon over 400 ESG datapoints are in this database involving information about for example diversity, emissions and sustainability governance.

The compensation data was retrieved using the S&P Capital IQ People Intelligence database through WRDS. Capital IQ is a set of multiple databases from S&P. The People Intelligence database covers not only data from public company executives, but also from private company executives worldwide (WRDS, n.d.). Among different types of compensation, the dataset contains personal information of the executive; education, biography, contact details etc.

At last, because CEO compensation is affected by other variables the dataset needs to contain several control variables. Governance control variables can be extracted from the Thomson Reuters Asset 4 database. DataStream is used to collect financial performance control variables. With timeseries data available from the 1950's, the database is an extensive one covering financial historical data from 22.000 active and 40.000 inactive companies in 162 countries (Refinitiv, 2019B).

## 3.1.1 SAMPLE SELECTION

First of all, a company is only applicable in this research if there is an ESG-score available. The Asset4 database was consulted to collect all the sustainability performance data. This was done for all Dutch companies which were available. At first, the dataset consisted out 50 companies for the specific time period. Unfortunately, much sustainability performance data was missing therefore companies were left out of the sample. Consequently, only 28 companies were left. Missing data can have a significant effect on the results, consequently it has been tried to make the dataset as complete as possible. Yet again, when the CEO compensation data was collected for these 28 companies, data was missing. Since the CEO compensation database uses information from annual reports, missing data in the dataset was supplemented by reviewing several annual reports. Except for three companies, this was successfully done. Considering that these companies also missed governance data, these

companies were additionally left out of the sample. The final list of the companies included is given in Appendix A: Companies list. In Excel all the data was combined into one big datafile. The total dataset is made from 25 companies containing 100 observations. Since the same companies are being examined for all periods, the data is called a fixed balanced panel (Park, 2011).

#### 3.1.2 INDEPENDENT AND DEPENDENT VARIABLES

The yearly ESG-score can be retrieved from the database Thomson Reuters Asset4 database using DataStream and will have a value between 0 and 100. The ESG-score is determined by Refinitiv and is based on a relative ESG performance with the company's sector and country of incorporation for environmental, social and governance factors. Since 2009, over 9000 companies are rated globally (Refinitiv, 2020). Among relative performance the rating is determined using several other assumptions. Information which is made publicly available is used to revise the company for ten themes; resources used, innovation, human rights, product responsibility, CSR strategy etc. Transparency about these 10 themes is stimulated, since there are 450 categories within these 10 themes the company will receive a score for. If a company does not report about their relevant performance this will result in a lower ESG score. The score will also be controlled for specific industries, as the importance of the performance varies across industries. The score for each theme will receive a certain weight which is dependent on the industry the company is in, using this the total score is calculated. The SIC code gives information about to which industry a company is affiliated, this can additionally be found in the Thomson Reuters database. The following industries; Oil & Gas, Chemical, Mining, Utilities, Forest and Paper products, Beverage, Tobacco, Aerospace and Defense, are qualified as high impact industries (Patten, 1991; Patten, 2002; Deegan & Gordon, 1996; Al-Shaer & Zaman, 2019). Each of these industries have a special SIC code, view Appendix B: SIC codes of high impact industries. If a company has an industry code starting with these digits, it will get the value 1 for the dummy variable HIGHIMP. This variable is, unlike other variables, time-invariant.

Additionally, information about sustainability reporting and sustainability committees can be found in the Asset4 database. Each year the annual reports are being reviewed using questions such as "Does the company have a CSR committee or team?" the answers will either be yes or no. The binary variables will have value 1 if the answer is yes. Whether or not a company has sustainability incentives in the remuneration contract can also be extracted from the Asset4 database, this is a binary variable.

Moreover, the value of the total CEO compensation and its components are key variables in this research. The values of these continuous variables are given in euros and are extracted from the database S&P Capital IQ People Intelligence. The total CEO compensation is a sum of the short-term and long-term based compensation in euros. The short-term compensation consists out of the annual

salary and annual bonus. The value of the annual bonus is necessary to test H<sub>2</sub>. The long-term based compensation is equity-based compensation (LTIP) and other benefits; pension allowances and perquisites. Because some companies have several CEO's a year, the sum of the individual compensation is used to retrieve one observation for each year. This addition can result in large deviations; therefore, a dummy variable will be added which will have value 1 if there has been multiple CEO's in one year. Furthermore, the seniority of the CEO has a positive effect on the compensation. The seniority of a CEO also has an impact on the total pay (Hill & Phan, 1991; Milbourn, 2003). To control for seniority, the age of the CEO, which is an ordinal variable, is collected.

#### 3.1.3 CONTROL VARIABLES

The control variables added are mentioned in previous literature with a proven effect on CEOcompensation. Therefore, they are added to avoid omitted variables. The first control variables are firmspecific variables. It has found that the most large firms, recruit the most talented executives to occupy the top positions (Cai, Jo, & Pan, 2011), "where the marginal productivity of their actions is greatly magnified over the many people below them to whom they are linked" (Rosen, 1992, p. 316). This is in accordance with previous literature which underpin a positive relationship between CEO compensation and firm size (Roberts, 1956; Cosh, 1975; Murphy, 1985; Kostiuk, 1989). Net sales is used to control for firm size. Corporate performance is also linked to CEO compensation (Zhou, 2000; Cordeiro & Veliyath, 2003; Murphy, 1985). To control for the corporate performance, the Return On Equity (ROE) is used. Beta is used to control for risk (Core, 1997; Cordeiro & Veliyath, 2003). The pay of a CEO is additionally depending on the leverage of the company (Jensen et al., 1992; Gilson & Vetsuypens, 1993). Leverage will be calculated as the total debt divided by the total assets.

Secondly, governance variables. When the board increases the monitoring of business, the compensation is more likely to be increased (Cai et al., 2011). The monitoring is believed to be more effective when there are more boardmeetings. Board size and the proportion of financial or industry experts has a positive effect on the monitoring and effectiveniss (Hermalin, 2005; Güne et al., 2008). View Table 1: Variable list and variable description. In conclusion, to control for governance the amount of board meetings, the board size and in addition to the proportion of financial or industry experts are added to the models.

Variable name	Variable description
COMPNAME	Name of company.
ISIN*	International Securities Identification Number.
YEAR	Year.
HIGHIMP	Dummy variable which will have value 1 if it belongs to one of the following high impact sectors: Oil & Gas, Chemical, Mining, Utilities, Forest and Paper products, Beverage, Tobacco, Aerospace and Defense.
ESG*	Refinitiv's ESG Score is an overall company score based on the self-reported information in the environmental, social and corporate governance pillars.
BOARDSIZE*	The total number of managing board members at the end of the fiscal year.
BOARDMEET*	The number of board meetings during the year.
BOARDSKILL*	Percentage of board members who have either an industry specific background or a strong financial background.
TOTASSETS*	Book value of the total assets in euros.
TOTSHAREQUITY*	Book value of the shareholders equity in euros. Represents the sum of Preferred Stock and Common Shareholders' Equity.
NETSALES*	Net sales in euros. Gross sales and other operating revenue less discounts, returns and allowances.
LTDEBT*	Book value of the long-term debt in euros.
TOTDEBT*	Book value of total debt in euros.
ROE*	Return on Equity, Total in %. (Net Income – Bottom Line - Preferred Dividend Requirement) / Average of Last Year's and Current Year's Common Equity * 100. Values are for the 12 months to the most recent fiscal year end.
LEV	Leverage calculated as total debt divided by total assets.
BETA*	The beta factor of a stock relates movements in its price to movements in the market as a whole. Over a period, it expresses the relative movement of the price against the market, showing the likely relative change for a given market movement and whether the stock is prone to under- or over-react. In order to display beta calculations, at least 2½ years of data are required. Data is not held historically.
	DataStream is described here. The beta factors. The method adopted by DataStream is described here. The beta factor is derived by performing a least squares regression between adjusted prices of the stock and the corresponding DataStream market index. The historic beta so derived is then adjusted using Bayesian techniques to predict the probable behavior of the stock price on the basis that any extreme behavior in the past is likely to average out in the future. This adjusted value, or "forecast" beta, is represented by the BETA datatype. The DataStream beta factor is calculated using stock prices and market indices as the only variables.
CEONAME	The name of the CEO who was the CEO for the biggest part of the year.

CEOCHANGE	Dummy variable for multiple CEO's in one year. The variable will have value 1 if there was a change in executive leadership.
CEOAGE	The age of the CEO.
SALARY	Annual salary in euros.
BONUS	Annual bonus in euros.
OTHERCOMP	Other compensation in euro's, among perquisites and supplemental retirement contribution.
LTIP	Value of the long-term incentive plan in euros.
ТОТСОМ	Total compensation in euros. The sum of the total short-term compensation, long-term compensation.
SUSCOM*	Dummy variable for the following question: Does the company have a CSR committee or team? - board level or Senior management committee responsible for decision making on CSR strategy. If yes, this variable will have value '1'.
SUSEX*	Dummy variable for the following question: Does the company have an external auditor of its CSR/Sustainability report? - in scope are the data on external audit of the company's CSR data or extra financial report is considered - consider an audit in the form of a review done by a university, academic, expert, external panel or a research center - web-based CSR reports that are externally audited - integrated annual report having external audit statements for its environmental and social data.
SUSREP*	If yes, this variable will have value '1'. Dummy variable for the following question: Does the company publish a separate CSR/Sustainability report or publish a section in its annual report on CSR/Sustainability? - any separate extra-financial report in which the company reports on the environmental and social impact of its operations - when the company publishes an extra financial report in a foreign language we answer as '1' with a comment - web-based non-financial reports are also considered if data is updated yearly - integrated annual report with sustainability data is qualified information - CSR section from the annual report must consist of substantial data - exceptionally, if company report quantitative data exclusively in less than 5 pages can also be considered - CSR reports published bi-annually, current year when there is no report then data measure is answered '0' - data only on community-focused report with community-related activities of the company, answer is '0'. If yes, this variable will have value '1'. Dummy variable for the following question: Is the senior executive's compensation linked to CSR/Sustainability targets? If yes, this variable will have
SUSCOMINC*	compensation linked to CSR/Sustainability targets? If yes, this variable will have value '1'.

\* Description derived from Database DataStream

#### 3.2 METHODOLOGY

To test the hypotheses, Stata is used to run various tests. After collecting the descriptive statistics, the skewness of several variables is being investigated. It is expected that net sales and the compensation variables are skewed. If this is the case, the variables will be converted into the natural logarithm. Afterwards, multiple regressions will be run. However, these regressions must fit the panel data correctly. Panel regressions will combine the cross-sectional and time-series data, which will result in a model that has more degrees of freedom than a model using only cross-sectional or time-series data. On each regression a test will be performed whether a panel regression is necessary or if an Ordinary Least Squared (OLS) regression is also sufficient. The fourth until the last hypothesis is tested with a regression that has a dummy variable as the dependent variable. For this matter a logit regression is used which is correct for a binary dependent variable. If a panel regression gives the preference, the type of panel regression is determined using a Hausman test. This allows us to choose between a random-effects model and a fixed-effects model. After the type of regression is chosen, the model will be adjusted for multicollinearity, heterogeneity, and autocorrelated error.

#### 3.2.1 ESG SCORE AND CEO COMPENSATION

The first three panel regressions are made to examine H<sub>1</sub>, H<sub>2</sub> and H<sub>3</sub>. All three of the regressions will have a compensation variable, which is a numeric value, as dependent variable. Since the dependent variables are highly skewed, they are transformed into natural logarithms. The first hypothesis is tested with the total compensation as the dependent variable. The second regression, where the dependent variable is the annual bonus, will only be run for non-financial institutions. The dependent variable of the third regression will be the long-term incentive plan. This regression will only be run for the observations that have met the condition of having sustainability incentives.

Furthermore, all three of the regressions will have a constant and the same independent variables. The important independent variable is the ESG score, followed by the seniority of the CEO which is also a numeric value with the age of the CEO. Another variable is a dummy variable which takes value 1 if within the year a new CEO was appointed. Added are multiple control variables. The firm specific control variables are net sales followed by the ROE. The net sales values are also skewed, therefore yet again a natural logarithm will be used. Furthermore, beta and leverage are added to the regression. The governance control variables are the amount of board meetings and the board size with the fraction of financial or industry experts. For a further explanation of all variables, please view table 1.

 $\begin{aligned} & H_{1}: \qquad LN(TOTCOM_{i,t}) = \beta_{0} + \beta_{1}ESG_{i,t} + \beta_{2}CEOAGE_{i,t} + \beta_{3}CEOCHANGE_{i,t} + \beta_{4}LN(NETSALES_{i,t}) + \\ & \beta_{5}ROE_{i,t} + \beta_{6}BETA_{i,t} + \beta_{7}LEVERAGE_{i,t} + \beta_{8}BOARDSIZE_{i,t} + \beta_{9}BOARDMEET_{i,t} + \\ & \beta_{10}BOARDSKILL_{i,t} + \varepsilon_{i,t} \end{aligned}$ 

 $\begin{aligned} & H_{2}: \qquad LN(BONUS_{i,t}) = \beta_{0} + \beta_{1}ESG_{i,t} + \beta_{2}CEOAGE_{i,t} + \beta_{3}CEOCHANGE_{i,t} + \beta_{4}LN(NETSALES_{i,t}) + \\ & \beta_{5}ROE_{i,t} + \beta_{6}BETA_{i,t} + \beta_{7}LEVERAGE_{i,t} + \beta_{8}BOARDSIZE_{i,t} + \beta_{9}BOARDMEET_{i,t} + \\ & \beta_{10}BOARDSKILL_{i,t} + \varepsilon_{i,t} \end{aligned}$ 

 $\begin{aligned} & H_{3}: \qquad \text{LN}(LTIP_{i,t}) = \beta_{0} + \beta_{1}ESG_{i,t} + \beta_{2}CEOAGE_{i,t} + \beta_{3}CEOCHANGE_{i,t} + \beta_{4}LN(NETSALES_{i,t}) + \\ & \beta_{5}ROE_{i,t} + \beta_{6}BETA_{i,t} + \beta_{7}LEVERAGE_{i,t} + \beta_{8}BOARDSIZE_{i,t} + \beta_{9}BOARDMEET_{i,t} + \\ & \beta_{10}BOARDSKILL_{i,t} + \varepsilon_{i,t} \end{aligned}$ 

With; TOTCOM<sub>i,t</sub>: Total compensation of the CEO at company i at time t. BONUS<sub>i,t</sub>: Bonus awarded to CEO at company i at time t. LTIP<sub>i,t</sub>: Long term incentive plan awarded to CEO at company i at time t. ESG<sub>i,t</sub>: The ESG score of company i at time t. CEOAGE<sub>i,t</sub>: The age of the CEO of company i at time t. CEOCHANGE<sub>i,t</sub>: Was there a new CEO named at company i over time t? NETSALES<sub>i,t</sub>: The net sales of company i at time t in euros. ROE<sub>i,t</sub>: The return on equity of company i at time t. EVERAGE<sub>i,t</sub>: The beta factor of company i at time t. LEVERAGE<sub>i,t</sub>: The leverage of company I at time t. BOARDSIZE<sub>i,t</sub>: The number of board members of company i at time t. BOARDMEET<sub>i,t</sub>: The number of board meetings of company i over time t. BOARDSKILL<sub>i,t</sub>: Percentage of board members of company I who have either an industry specific background or a strong financial background at time t.  $\varepsilon_{i,t}$ : The idiosyncratic error.

Firstly, a test will be performed to choose between a pooled Ordinary Least Squares (OLS) regression and a random effects panel regression. This is done using the Breusch Pagan Lagrange Multiplier test for random effects. Under the null hypothesis the variance of the unobserved fixed effects is zero, which indicates that a pooled OLS regression is the appropriate model (Stata, n.d.). The significance level used is 5%. If the null hypothesis is rejected, the appropriate model is a random effects model. When the null hypothesis is rejected a second test will be performed. This is the Durbin-Hausman-Wu test. Under the null hypothesis there is exogeneity, which indicates the errors are not correlated with the regressors. If the p-value is bigger than the significance level ( $\alpha = 0.05$ ), a random effects model is consistent and efficient. However, if the p-value of the Hausman-Wu test is smaller than the significance level the null hypothesis is rejected and there is endogeneity. If this is the case, the preference will go out to a fixed effects model. A fixed effects model will remove the values that have been the same over time out of the sample since these observations can't be of an effect on the dependent variable. Removing the time-invariant values will minimalize the cross-correlations of the error terms and the regressors (Brooks, 2019).

The Breusch Pagan LM test for the first hypothesis had a p-value of 0.00, since this is smaller than the significance level the null hypothesis, the variance of the unobserved fixed effects is zero, is rejected. A panel regression is therefore appropriate. The Durbin-Hausman-Wu test showed with a significance level of 0.00 that the regression to test hypothesis 1 should be run with a fixed effects model. On the other hand, the Breusch-pagan LM test was not significant for the second and third hypothesis, therefore these regressions will be ran using a pooled OLS model. The reason for this can be the extra condition of these hypotheses which resulted in substantially less observations that are taken into account. For the second hypothesis the regression is only run for non-financial institutions, including only 20 of the 25 companies. The third hypothesis only includes the observations where there are sustainability incentives present. Each sample will now have different years and a pooled OLS model is appropriate (Woolridge, 2002).

In conclusion, although the three regressions may have the same independent variables, the regression models used can differ due to the number of observations. After deciding which regressionmodels to use, the models will be tested for multicollinearity. If independent variables are correlated with each other, this will be resolved by excluding variables from the regression. Following, the errors will be adjusted for heteroskedasticity and autocorrelation.

#### 3.2.2 SUSTAINABILITY INCENTIVES

To test  $H_4$ ,  $H_5$  and  $H_6$  regressions will be run with sustainability incentives as the dependent variable. Since sustainability incentives is a binary variable, a logistic regression is performed. In addition, control variables will be added to the regressions. Through governance and incentives variables the level of compensation incentives is contemplated (Agrawal & Knoeber, 1996; Cordeiro & Veliyath, 2003; Rediker & Seth, 1995). With this information, the same control variables as  $H_1$ ,  $H_2$  and  $H_3$  will be used to test the remaining hypotheses. Sustainability reporting has a positive effect on the existence of sustainability incentives (Abdelmotaal & Abdel-Kader, 2016). Consequently, whether a company reports about their sustainability, will be added as a control variable.

Hypothesis 4 has high impact as the important independent variable. This variable is a timeinvariant dummy variable; therefore, it is not possible to use a fixed effects model. Since hypotheses 4, 5 and 6 have the same dependent variable, these hypotheses can be combined into one model. A random effects logit panel model will be used for the following regression:

 $\begin{array}{l} \mathsf{H}_{4} \& \, \mathsf{H}_{5} \& \, \mathsf{H}_{6}: \qquad P(SUSCOMINC_{i,t}=1 \, \big| \, \mathsf{X}) = \ \beta_{0} + \beta_{1} HIGHIMP_{i,t} + \beta_{2} SUSEX_{i,t} + \beta_{3} SUSCOM_{i,t} + \\ \beta_{4} SUSREP_{i,t} + \beta_{5} LN(NETSALES_{i,t}) + \beta_{6} ROE_{i,t} + \beta_{7} BETA_{i,t} + \beta_{8} LEVERAGE_{i,t} + \beta_{9} BOARDSIZE_{i,t} + \\ \beta_{10} BOARDMEET_{i,t} + \ \beta_{11} BOARDSKILL_{i,t} + \ \varepsilon_{i,t} \end{array}$ 

With;  $P(SUSCOMINC_{i,t} = 1 | X)$ : The probability that there are sustainability incentives present, based on all the explanatory variables X.

 $HIGHIMP_{i,t}$ : Does company i belong to one of the following high impact sectors: Oil & Gas, Chemical, Mining, Utilities, Forest and Paper products, Beverage, Tobacco, Aerospace and Defense.

 $SUSEX_{i,t}$ : Does company i have an external auditor of its CSR/Sustainability report at time t?

*SUSCOM<sub>i,t</sub>*: Does company i have a CSR committee or team at time t?

 $SUSREP_{i,t}$ : Does company i publish a separate CSR/Sustainability report or publish a section in its annual report on CSR/Sustainability at time t?

 $NETSALES_{i,t}$ : The net sales of company i at time t in euros.

 $ROE_{i,t}$ : The return on equity of company i at time t.

 $BETA_{i,t}$ : The beta factor of company i at time t.

 $LEVERAGE_{i,t}$ : The leverage of company I at time t.

 $BOARDSIZE_{i,t}$ : The number of board members of company i at time t.

*BOARDMEET*<sub>*i*,*t*</sub>: The number of board meetings of company i over time t.

 $BOARDSKILL_{i,t}$ : Percentage of board members of company I who have either an industry specific background or a strong financial background at time t.

 $\varepsilon_{i,t}$ : The idiosyncratic error.

Additionally, for better and more consistent estimates the fourth regression will be adjusted for multicollinearity, heteroskedasticity and autocorrelation where necessary.

## Results

## 4.1 DESCRIPTIVE STATISTICS

View table 2 for the descriptive statistics of all variables included in the regression models. In this table the number of observations of each variable can be found in addition to the mean, median, standard deviation, minimum and maximum. The total sample is made from 100 observations over the period 2015-2018, it includes 25 companies, view Appendix A: Companies list. A company is qualified as a high environmental and social impact company if the SIC code of the company starts with any of the numbers stated in the Appendix B: SIC codes of high impact industries. The mean of the high impact companies is 0.44, this indicates that 11 of the 25 companies included has a high environmental and social impact. 5 of the 25 companies, the mean is 0.20, are financial institutes.

If a company has a sustainability committee, the value for this variable will be 1. The mean of a sustainability committee is 0.84, indicating that the large majority of the sample has a sustainability committee. Additionally, almost the whole sample, mean is 0.96, reports about their sustainability performance. On average almost three quarter, mean is 0.74, uses an external reporter to make this report. However, with a mean of 0.30, the amount of companies that has sustainability incentives is relatively small compared to the amount of sustainability committees and external reporting. It has been found that only 35% of the companies that has an external sustainability reporter, will include sustainability incentives. This percentage is even lower when there is a sustainability committee, only 25% will then include sustainability incentives in the compensation contract of the CEO.

The ESG score varies, the minimum score noted is only 18.02 out of 100, which is rather bad. On the other hand, the maximum score measured, 92.17 out of 100, is very high. The average ESG score found of the whole sample is 65.58 with a similar median, 66.07. The yearly average ESG score is rising, from 63.35 in 2015 to 69.76 in 2018. In summary, the sustainability performance of this sample improves over the years. Within this sample, companies that have a high environmental and social impact, do have a lower ESG score compared to companies that are not qualified as high impact. Moreover, this sample is outperforming the Dutch Market when compared to the findings of Morningstar (2017) whom found an average national ESG-score of 58.24. This difference can be explained by the sample selection.

The managing board in this sample, has a minimum member count of 4 and has a maximum of 14 members. On average the board contains out of 8 members, mean 7.72, and meets 10 times a year, mean 9.64. There is however a huge difference in the number of meetings, with a minimum of 6 and a

maximum of 38 annual meetings. On average 40% of the board members has financial or industry specific expertise, mean 40.47.

Variable	N	Mean	SD	Median	Min	Max	
FIN	100	0.20	0.40	0.00	0.00	1.00	
YEAR	100	2016.50	1.12	2016.00	2014.00	2018.00	
HIGHIMP	100	0.44	0.50	0.00	0.00	1.00	
SUSCOM	100	0.84	0.37	1.00	0.00	1.00	
SUSEX	99	0.74	0.44	1.00	0.00	1.00	
SUSREP	99	0.96	0.20	1.00	0.00	1.00	
SUSCOMINC	99	0.30	0.46	0.00	0.00	1.00	
ESG	99	65.58	14.42	66.07	18.02	92.17	
BOARDSIZE	100	7.72	2.31	7.00	4.00	14.00	
BOARDMEET	99	9.64	4.69	9.00	5.00	38.00	
BOARDSKILL	100	40.47	18.75	40.00	0.00	85.71	
LN(NETSALES)	100	15.81	1.37	15.84	12.35	17.96	
ROE	97	11.69	16.70	11.67	-28.97	82.50	
LEV	100	0.26	0.17	0.24	0.00	0.71	
BETA	97	1.05	0.36	0.99	0.35	2.23	
CEOCHANGE	100	0.05	0.22	0.00	0.00	1.00	
CEOAGE	100	55.70	4.00	56.00	44.00	64.00	
LN(SALARY)	100	13.74	0.38	13.73	13.04	14.51	
LN(BONUS)	100	12.16	3.96	13.52	0.69	15.10	
LN(LTIP)	100 9.97		6.17	13.47	0.69	15.79	
LN(TOTCOM)	100	14.83	0.76	14.90	13.52	16.42	

TABLE 2: DESCRIPTIVE STATISTICS OF THE SAMPLE (N=25) OVER THE PERIOD 2015-2018

Regarding firm specific variables, the net sales reflects the size of the company. On average a company has net sales of 15 million euros, however some companies noted net sales up to 63 million. Because of the skewness, the variable is transformed into the natural logarithm. The return on equity measured differs as well. From a negative ROE of -28.97, pointing out a negative profit compared to the shareholders equity, until a rather large positive ROE of 82.50. Further investigation of the ROE shows smaller deviations and lower extreme values for companies that do not belong to high environmental and social impact companies. This is in accordance with the findings of Gómez-Bezares et al. (2016), whom found that greater sustainable performances can improve shareholders wealth due to a greater return, less stock return volatility and a diminished loss during bear phases.

Additionally, the average leverage is 0.26. The sample contains firms without any leverage (min 0), but also high levered companies (max 0.71). Relative movement of the stock price against the market represented by beta is also summarized. On average the sample deviates a bit from the market return with a mean of 1.05. On the other hand, there are stocks that are more volatile than the market with a

maximum beta of 2.23. High beta stocks are expected to be high risk, but this risk will be compensated by a higher return.

On average a CEO of the sample is 56 years old. Moreover, 5% of the observations consisted a change in CEO which may lead to deviations in compensation values. The average CEO salary is 990 thousand euros, with outliers of salaries up to 2 million euros. The average total compensation is 3.65 million euros. This is rather deviating from the findings of the NCD (2019) whom found a mean salary of 139 thousand euros and a mean total compensation of 166 thousand euros, however this can be explained by the sample of the NCD since this was a sample containing private and public companies. Some CEO's didn't receive a bonus or LTIP, but when they did, they received significant amounts. The bonus awarded could have values until 3.63 million euros, where the LTIP's awarded could have values until 7.23 million euros. To even the distribution of the total compensation, salary, bonus and LTIP, the variables are transformed into the natural logarithm which also can be found in table 2.

#### 4.2 CORRELATION

For the extensive correlation table of all variables including interpretation and discussion about multicollinearity, view Appendix C: Correlation matrix all variables.

#### 4.3 RESULTS REGRESSIONS

As mentioned earlier, the first three hypothesis may have the same independent variables, however the used regressionmodels differ. In table 3 the regression results for hypotheses 1-3 can be found. Because the dependent variable is a natural logarithm, the interpretation of the coefficients must be done with some caution. The coefficient should be interpreted as: "if we change x by 1 (unit), we'd expect our y variable to change by  $100 \cdot \beta 1$  percent" (Kephart, 2013). When we view the regression results, the constant should also be interpreted with some caution. The value of the constant is the average result if all other coefficients have value 0, this is a very non-realistic assumption. The final hypotheses, 4-6, are tested using logistic regressions, the test results are given in table 4. A logistic regression can't interpret direct effects but when converted it does explain the marginal effect of the independent variable on the chance that the dependent variable has value 1. In our case, the dependent variable is the presence of sustainability incentives. The marginal effects can also be found in table 4.

#### 4.3.1 ESG SCORE AND TOTAL COMPENSATION

When we view the results of model 1 in table 3, the overall of the coefficients are insignificant. There is no significant effect found of the ESG score on the dependent variable the total compensation. It is however found, that when there is a new CEO named, this does have a strong significant positive effect on the total compensation. This was expected and was therefore included as a control variable. On the other hand, the majority of the control variables do not have a significant on the total compensation, contradicting the empirical results of earlier literature.

AS INFORTANT INDEPENDENT N	ANIADLL		
Model	1	2	3
Variable	LN(TOTCOM)	LN(BONUS)	LN(LTIP)
ESG	0.00	0.02	0.15
	(0.00)	(0.03)	(0.10)
CEOAGE	0.02	-0.02	-0.20
	(0.02)	(0.04)	(0.24)
CEOCHANGE	0.52**	1.59	2.13
	(0.22)	(1.48)	(3.52)
LNSALES	0.06	0.17	0.44
	(0.16)	(0.22)	(1.41)
ROE	-0.00	0.02	0.08**
	(0.00)	(0.02)	(0.03)
BETA	0.07	0.71	1.97
	(0.07)	(0.69)	(3.09)
LEV	0.66	1.68	16.25**
	(0.51)	(2.04)	(6.11)
BOARDSIZE	-0.02	0.25**	0.71
	(0.04)	(0.11)	(0.68)
BOARDMEET	-0.00	-0.20	-0.20
	(0.00)	(0.14)	(0.15)
BOARDSKILL	0.00	0.00	-0.08
	(0.00)	(0.01)	(0.06)
Constant	12.38***	8.50**	-6.86
	(2.69)	(3.87)	(18.69)
Observations	93	76	29
$R^2$	0.28	0.38	0.71
Adjusted R <sup>2</sup>	0.19	0.28	0.54
Regression type	Fixed Effects	Pooled OLS	Pooled OLS

TABLE 3: REGRESSION RESULTS WITH THE COMPENSATION COMPONENTS AS DEPENDENT VARIABLES AND THE ESG SCORE AS IMPORTANT INDEPENDENT VARIABLE

Standard errors in parentheses

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

Because including irrelevant variables can make the important variables insignificant, the insignificant control variables are being removed step-by-step (Brooks, 2019). Gradually removing the control variables from the model, view Appendix D: Total compensation as dependent variable, nearly has an effect on the significance of the ESG score. However, when the regression is run with only the ESG score as the dependent variable, view model 1E in Appendix D, the coefficient has value 0.00 and is significant. This needs to be interpreted with caution because removing control variables decreases the explaining value of the model (Brooks, 2019). Since the significance is reliant on the attendance of the control variables, there may be an effect between the ESG score and the control variables which causes this disturbance. It has been tried to control for this by looking for multicollinearity, but this was apparently not sufficient. Since the unrestricted model is substantiated with earlier literature, the final conclusions are drawn from this complete model. It is therefore concluded that there is no significant

effect of the ESG score on the total compensation within this sample. With this information the first hypothesis, the ESG-score has a positive effect on the total CEO compensation, is rejected.

#### 4.3.2 ESG SCORE AND BONUS

Now view model 2 in table 3. This regression is only run for non-financial institutions because of Dutch regulations. It has been found that the board size has a positive effect on the bonus, this is in accordance with the findings of Cai et al. (2011). However, the other control variables are not significant. Also there is no significant effect of the ESG score on the bonus. To investigate if relations between the ESG-score and the controlvariables may be the cause of this, the insignificant controlvariables are again gradually being removed from the regression, view Appendix E: Bonus as dependent variable. This does not change anything about the insignificant effect of the ESG-score is the only independent variable, there is a postive significant effect of 0.05. Ultimately, there was no proof find which is in accordance with the second hypothesis of a negative correlation between the ESG score and the bonus is refuted.

#### 4.3.3 ESG SCORE AND LTIP

For the third hypothesis the dependent variable is the LTIP, view model 3 in table 3. The third hypothesis expected a positive effect of the ESG score on the LTIP under the condition that there are sustainability incentives present. This includes only 30 observations. The model used to test this is a pooled OLS regression. There is a strong significant positive effect of the leverage on the LTIP. These results are in line with the findings of Jensen et al. (1992) and Gilson & Vetsuypens (1993). Also, the ROE has a positive significant effect on the LTIP. This was expected due to previous literature which stated that the corporate performance is also linked to CEO compensation (Zhou, 2000; Cordeiro & Veliyath, 2003; Murphy, 1985). The other controlvariabels show no significant effects. At first there is no significant effect of the ESG score on th LTIP found. When the insignificant board controlvariables are being removed, the ESG score does have a significant effect on the LTIP, view model 3B in Appendix F: LTIP as dependent variable. This can be explained by the board controlvariables that may have a relation with the ESG score. The effect of the ESG score becomes even more strong and significant if the firmspecific controlvariables are being removed from the regression. The omittion of the firmspecific controlvariables also involves a relatively larger change in the coefficient value, view model 3C in Appendix F: LTIP as dependent variable. In addition, if there has been a change of CEO's, now has a significant positive effect on the LTIP. It is plausible that there is a relationship between the firm-specific controlvariables and the ESG-score and the CEO change which causes this. But since the significance of the ESG score on the LTIP is only present if some controlvariables are excluded, there is in conclusion no significant effect of the ESG score on the LTIP. Again the findings are in contradiction with the hypothesis made.

#### 4.3.4 SUSTAINABILITY INCENTIVES

For regression model 4, the variable sustainability reporting is removed from the regression. This variable was omitted since in this sample, almost all observations, except for the observations of the company TOMTOM, had a sustainability report. Therefore, this variable does not have any explaining value regarding the presence of sustainability incentives. The regression results which belong to hypothesis 4-6 can be found in table 4.

Model	4A		4B		4C		4D	
Variable	SUSCOMI	NC	SUSCOM	INC	SUSCOM	INC	SUSCOM	INC
		dy/dx		dy/dx		dy/dx		dy/dx
HIGHIMP	0.04	0.00	-0.11	-0.02				
	(1.17)	(0.15)	(0.98)	(0.14)				
SUSEX	0.05	0.01			0.81	0.12		
	(1.60)	(0.20)			(1.61)	(0.24)		
SUSCOM	-3.48***	-0.44***					-2.05**	-0.28**
	(1.01)	(0.07)					(0.87)	(0.11)
LNSALES	0.47	0.06						
	(0.41)	(0.05)						
ROE	0.02	0.00						
	(0.02)	(0.00)						
BETA	-3.49	-0.44						
	(2.65)	(0.29)						
LEV	-0.21	-0.03						
	(1.98)	(0.29)						
BOARDSIZE	0.02	0.00						
	(0.20)	(0.03)						
BOARDMEET	0.04	0.01						
	(0.06)	(0.01)						
BOARDSKILL	-0.05**	-0.01**						
	(0.02)	(0.00)						
Constant	-0.98	0.32***	-1.26*	0.30***	-1.86	0.30***	0.46	0.30***
	(4.98)	(0.05)	(0.70)	(0.07)	(1.31)	(0.06)	(0.86)	(0.06)
lnsig2u	0.32		1.23*		0.98		1.02	
	(1.03)		(0.72)		(0.80)		(0.78)	
Observations	93		99		99		99	
LLH	-41.16		-54.71		-54.44		-52.86	
Regression type	RE		RE		RE		RE	

TABLE 4: LOGISTIC REGRESSION RESULTS WITH SUSTAINABILITY INCENTIVES AS DEPENDENT VARIABLE AND MARGINAL EFFECTS ON THE PROBABILITY OF SUSTAINABILITY INCENTIVES BEING PRESENT.

Standard errors in parentheses, dy/dx is the marginal effect on the probability of sustainability incentives being present under condition of all other variables remaining the same. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

The marginal regression results show a significant constant of 0.32, this implies that if all other variables have value 0, the chance that there are sustainability incentives present is approximately 32%. When all observations are taken into account, this is 30%. These results are in accordance with the mean of the sustainability incentives for this sample, view Table 2.

Moreover, the percentage of board members that have financial or industry specific skills have a negative significant effect on the presence of sustainability incentives. If there is one percentage more of skilled board members, this will reduce the chance on having sustainability incentives by 1% if all other variables remain the same. Perhaps this can be explained. The other control variables show no significant effect on the presence of sustainability incentives.

Firstly, the fourth hypothesis states that high social and environmental impact companies are more likely to include sustainability incentives in the compensation contract. We find no significant effect for companies of high environmental and social impact being more likely to include sustainability incentives. Even when all the other variables are removed from the regression, view model 4B in table 4, there is no significant effect found. For this sample, the fourth hypothesis is rejected.

Secondly, hypothesis 5 states that external sustainability reporting is expected to have a positive effect on the presence of sustainability incentives. The regression results show no significant effect of external sustainability reporting on including sustainability incentives. The significance does not change when the model is restricted to only one independent variable, view model 4C. These results indicate that there is either no effect of external sustainability reporting or the small sample size makes it impossible to find this effect. In conclusion, the fifth hypothesis is rejected.

Finally, the last hypothesis expected a positive effect of sustainability committees on the presence of sustainability incentives. Sustainability committees provide a more accurate view on sustainable performance by being more independent (Berrone & Gomez-Mejia, 2009). This accurate view is expected to stimulate CSP and on its turn it will stimulate the presence of sustainability incentives. In contrast to these expectations, it has been found that within this sample companies with a sustainability committee are less likely to include sustainability incentives. When there is a sustainability committee, this has a marginal effect of -0.44 on the chance of including sustainability incentives. When the control variables are removed, the effect decreases by half, suggesting that there is a relationship between the control variables and the sustainability committee. Nevertheless, it can be concluded that a sustainability committee has a negative effect on the presence of sustainability incentives. When the descriptive statistics are viewed again, it showed that only a quarter of the companies that has a sustainability committee will include sustainability incentives in the compensation contract of the CEO. Perhaps this can be explained by the same cause that sustainability incentives and a sustainability committee serve, both want to increase the sustainability performance. From a firm's perspective, they can be substitutes for each other instead of being complementary.

# CONCLUSION & DISCUSSION

With the development of sustainability scores, i.e. the ESG-score, it has become possible to measure the sustainability performance of corporations. The effect of sustainability performance on the financial performance has been extensively researched. However, there is very little information available about the effect of the sustainability performance on the CEO compensation components. This research was intended to provide new insights about the association between compensation incentives and sustainability performance. The main research question was: *What is the effect of sustainability performance on CEO compensation in the Netherlands?* Using empirical results of other studies, the effect of the ESG score on the CEO compensation components was predicted. Additionally, the effect of being a company within a high impact sector, with an external sustainability reporter or sustainability committees was predicted on the probability of including sustainability incentives.

Firstly, it was expected that the ESG score has a negative effect on the bonus and a reverse effect on total compensation and the LTIP. When all control variables were included, the ESG score did not show a significant effect on the compensation components. The correlation matrix did not show results of multicollinearity, nonetheless it is possible that there is a relation between the ESG score and the control variables which causes disturbances in the regressions. When the control variables were removed, especially the firm-specific control variables, the significance of the ESG score changed. It is expected that there is a relation between the firm-specific control variables and the ESG-score. Further research is needed to look into this relationship. In conclusion, there is no effect found of the ESG-score on the sustainability components.

Secondly, because high environmental and social impact companies may undergo more pressure to improve its sustainability performance, it was expected that these companies are more likely to include sustainability incentives. The logistic regression did not show results to substantiate this hypothesis. Additionally, it was expected that a more objective view stimulates CSP and on its turn the presence of sustainability incentives. An objective view is given by external sustainability reporting or sustainability committees. The companies may want to perform better due to this objective view, therefore it was anticipated that companies that have an external reporter or a sustainability committee will be more likely to include sustainability incentives. The results showed no significant results of an external reporter on the chance of including sustainability incentives. However, the results did show that companies with a sustainability committee are less likely to include sustainability incentives. This in contrary to the expectations but can be explained by the same cause sustainability incentives and committees serve; improving the sustainability performance. Including sustainability incentives in addition to a committee would be making unnecessary expenses. It is expected that the sustainability incentives and committee are substitutions for each other instead of being complementary. Further research may look into which mean is the most effective considering the costs and the sustainability performance achieved.

In conclusion, the sustainability performance measured by the ESG score, show no significant results on the CEO compensation components in The Netherlands. High environmental and social impact companies are not more likely to have sustainability incentives in the compensation contract. External sustainability reporting neither has a significant effect on including sustainability incentives. The results showed a negative marginal effect of sustainability committees on including sustainability incentives serve, they are expected to be substitutions for each other.

This research has several limitations. The first limitation of this research can be found in the methodology. The variables included in the regressions, often included dummy variables. Multiple dummy variables in a panel regression decreases the degrees of freedom (Park, 2011). Another limitation regards the ESG score as a measurement for the sustainability performance. The score is based on the transparency of a company, and since sustainability reporting is not obligated some companies don't report at all. This is also the main cause for the small sample. Additionally, research has shown that there is a low correlation between ESG rating agencies (Bos, 2020). A future recommendation is that external sustainability reporting should be made mandatory and the report should follow certain guidelines. This will result in more consistent scores which will improve the validity of future research. Additionally, there are no elaborations available on individual ESG score calculations. If this was available, this will give more insights regarding the categories the score is based on. The ESGsore is a combined score for environmental, social and corporate governance in 450 categories within 10 themes. In July 2020 BMW announced that the managers salary will be dependent on the carbon emissions (NOS, 2020). It is possible that there is a significant relation between the environmental categories and the compensation instead of the complete ESG-score. Future research may consist of finding out if these individual categories do have an effect on the CEO compensation in the Netherlands.

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# Appendixes

APPENDIX A: COMPANIES LIST

Company name	SIC
ABN AMRO BANK	6029
AEGON	6311
AKZO NOBEL	2851
ASML HOLDING	3559
ASR NEDERLAND	6311
BAM GROEP KON.	1542
BOSKALIS WESTMINSTER	1629
DSM KONINKLIJKE	2869
FUGRO	1389
HEINEKEN	2082
HEINEKEN HOLDING	2082
ING GROEP	6029
KONINKLIJKE AHOLD DELHAIZE	5411
KONINKLIJKE VOPAK	4226
KPN KON	4812
NN GROUP	6311
OCI	2873
PHILIPS ELTN.KONINKLIJKE	3845
POSTNL	4311
RANDSTAD	7363
SBM OFFSHORE	1389
ТОМ ТОМ	3663
UNILEVER	2844
WERELDHAVE	6512
WOLTERS KLUWER	7372

N = 25

# APPENDIX B: SIC CODES OF HIGH IMPACT INDUSTRIES

Industry Name	SIC code*
Oil & Gas	13
Chemical	28
Mining Utilities	10 till 14 40 till 49
Forest and paper products	26
Beverage	208
Tobacco	21
Aerospace	381
Defense	971

\*When a company has a SIC code starting with the digits mentioned above, the company belongs to an industry which has a high environmental and social impact.

# APPENDIX C: CORRELATION MATRIX ALL VARIABLES

Variable	COMP	FIN	YEAR	HIGH	SUS COM	SUSEX	SUSREP	SUSCOMINC	ESG	BOARD	BOARD	BOARD	NET SALES	ROE	LEV	BETA	CEO	CEO	SALARY	BONUS	LTIP	TOT
COMP	1				00111					DILL		BRILL	5/1225				CI MITOL	,102				
FIN	-0.347***	1																				
YEAR	-0.0346	0.0579	1																			
HIGHIMP	0.0168	-0.420***	-0.0266	1																		
SUSCOM	0.1000	-0.322***	0.0671	-0.0817	1																	
SUSEX	-0.437***	0.171	-0.00394	0.167	0.118	1																
SUSREP	-0.262**	0.100	0.0133	0.188*	-0.0930	0.340***	1															
SUSCOMINC	-0.0455	0.162	0.177*	0.0101	-0.273***	0.212**	0.143	1														
ESG	-0.169	0.174*	0.171	-0.0316	0.160	0.566***	0.441***	0.328***	1													
BOARDSIZE	0.0166	-0.124	0.00230	0.362***	0.121	0.340***	0.215**	0.0872	0.270***	1												
BOARDMEET	-0.105	0.135	0.0960	0.0851	0.00677	-0.0238	-0.0460	0.0798	0.0112	-0.0235	1											
BOARDSKILL	0.274***	0.00612	0.0500	0.152	0.0594	0.0238	0.0490	0.0758	0.0527	0.210**	0 169	1										
NETCALEC	0.274	0.00012	-0.0922	0.133	-0.0384	0.0775	-0.0485	-0.136	-0.0337	0.210	-0.108	1	1									
NETSALES	-0.0442	0.335***	0.00667	-0.138	0.0370	0.295***	0.186*	0.259**	0.529***	0.629***	0.0198	0.0338	1									
ROE	0.114	-0.0673	0.145	0.192*	0.0857	0.275***	0.189*	0.123	0.392***	0.349***	0.0959	0.210**	0.261**	1								
LEV	0.315***	-0.366***	-0.0210	0.658***	-0.0332	-0.0713	0.301***	-0.100	-0.197*	0.203*	-0.0632	0.285***	-0.209**	0.0826	1							
BETA	-0.0654	0.0713	-0.154	-0.00134	-0.219**	-0.401***	0.00888	-0.272***	-0.288***	-0.0943	0.0390	-0.106	-0.000775	-0.249**	0.0560	1						
CEOCHANGE	-0.163	0.0106	0.221**	0.0764	-0.0251	0.0423	0.0505	0.148	0.113	0.0166	0.248**	-0.185*	0.0579	-0.0426	0.118	-0.0189	1					
CEOAGE	-0.167	0.0454	0.185*	-0.268***	0.420***	-0.0350	-0.0411	0.00287	-0.0217	0.143	-0.00560	-0.0690	0.125	0.00528	-0.150	-0.141	-0.143	1				
SALARY	0.0408	0.256**	0.0824	0.101	-0.229**	0.0694	0.305***	0.00311	0.0528	0.536***	0.0192	0.146	0.529***	0.199*	0.181*	0.305***	0.0485	0.00373	1			
BONUS	0.108	-0.328***	-0.0370	0.433***	0.0663	0.144	0.170	-0.113	0.0274	0.748***	-0.148	0.219**	0.295***	0.211**	0.344***	-0.0436	-0.0210	0.0883	0.481***	1		
LTIP	0.285***	-0.394***	0.0726	0.286***	0.278***	0.100	0.109	-0.0342	0.237**	0.643***	-0.0609	0.224**	0.379***	0.379***	0.256**	-0.207**	0.115	0.150	0.333***	0.723***	1	
TOTCOM	0.184*	-0.248**	0.0451	0.299***	0.127	0.140	0.194*	-0.0355	0.218**	0.754***	-0.0908	0.216**	0.494***	0.328***	0.253**	-0.0940	0.0990	0.128	0.544***	0.871***	0.934***	1

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

#### INTERPRETATION CORRELATION MATRIX

When the ESG-score is viewed, no correlation can be found with the annual bonus. This is in contradiction with the second hypothesis. However, a rather small but significant positive correlation could be found between the ESG-score and the total compensation. The same accounts for the ESG-score and the LTIP, lining up the results with the hypotheses 1 and 3. Additionally we find that the ESG-score is significant positively correlated with the dummy variable financial institute. Indicating that financial institutes are more likely to have a higher ESG score. Despite companies that have a high environmental and social impact are expected to have a lower sustainability score, no correlation is found between the ESG score and the dummy variable high impact. It is however shown, that when a company takes the effort to improve its sustainability incentives, this is strongly significantly positively correlated with the ESG-score. The positive correlation between the ESG-score and sustainability committee is rather weak and not significant. The board size is positively correlated with the ESG-score, nonetheless no correlation was found between the EGS score and the other board control variables; the amount of board meetings and the percentage of board members that have financial or industry specific skills.

When investigating the firm specific control variables and the ESG-score, there is an overall positive effect of the ESG score on the firm. The net sales and ROE are strongly positively correlated with the ESG score. This joins the earlier research which found a positive correlation between firm performance and sustainability performance (Endrikat et al., 2014). On the other hand, the market risk, beta, is negatively correlated with the ESG score. This is in agreement with the findings of Gómez-Bezares et al. (2016). Leverage and the ESG score are additionally negatively correlated.

Furthermore, the table shows that if a company is a financial institute, this is significant negatively correlated with the total compensation, the bonus and LITP. This is in accordance with the additional compensation restrictions the financial institutes are subject to. However, the salary is significant positively correlated with the dummy variable of financial institute.

Additionally, it is found that the total compensation, the bonus and LTIP are significant positively correlated with the dummy variable high impact. This can perhaps be explained by the positive correlation between the dummy variable and the return on equity. A positive correlation is found between the dummy variable high impact and sustainability reporting, this is in line with the assumption that it is pressured by society for high impact companies to report more often about their sustainability performance. However, unlike the assumption that high impact companies have a greater interest in improving their sustainability performance by adding sustainability incentives, there is no correlation

found between sustainability incentives and high impact companies. This is in breach with the fourth hypothesis.

Finally, external sustainability reporting is positively correlated with sustainability compensation incentives. This can be explained by the more objective view the external report gives which stimulates the sustainability performance. Notwithstanding, is the negative correlation found between sustainability committee and sustainability incentives. It was expected that the sustainability committee will have a positive effect on the presence of sustainability incentives by being more independent. The negative correlation found is therefore in violation with the last hypothesis.

## MULTICOLLINEARITY

Multicollinearity arises when the independent variables are strongly correlated with each other, resulting in high standard errors and a wide confidence interval. Furthermore, the regression will have insignificant and very sensitive coefficients in the (Brooks, 2019). Luckily in this sample there are no strong correlations between the dependent variables, so it is not necessary to control for this.

Model	1A	1B	1C	1D	1E
Variable	LNTOTCOM	LNTOTCOM	LNTOTCOM	LNTOTCOM	LNTOTCOM
ESG	0.00	0.00	0.01*	0.00	0.00**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
CEOAGE	0.02	0.02	0.01		
	(0.02)	(0.01)	(0.01)		
CEOCHANGE	0.52**	0.53**	0.49**	0.42**	
	(0.22)	(0.22)	(0.21)	(0.19)	
LNSALES	0.06	0.13			
	(0.16)	(0.17)			
ROE	-0.00	-0.00			
	(0.00)	(0.00)			
BETA	0.07	0.05			
	(0.07)	(0.08)			
LEV	0.66	0.58			
	(0.51)	(0.53)			
BOARDSIZE	-0.02				
	(0.04)				
BOARDMEET	-0.00				
	(0.00)				
BOARDSKILL	0.00				
	(0.00)				
Constant	12.38***	11.25***	13.67***	14.50***	14.25***
	(2.69)	(2.87)	(0.85)	(0.19)	(0.27)
Observations	93	94	99	99	99
$R^2$	0.28	0.29	0.26	0.25	0.06
Adjusted R <sup>2</sup>	0.19	0.24	0.24	0.23	0.05

## APPENDIX D: TOTAL COMPENSATION AS DEPENDENT VARIABLE

Standard errors in parentheses

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

## APPENDIX E: BONUS AS DEPENDENT VARIABLE

Model	2A	2B	2C	2D	2E
Variable	LNBONUS	LNBONUS	LNBONUS	LNBONUS	LNBONU
ESG	0.02	0.02	0.03	0.03	0.05*
	(0.03)	(0.02)	(0.02)	(0.02)	(0.03)
CEOAGE	-0.02	-0.03	-0.02		
	(0.04)	(0.05)	(0.05)		
CEOCHANGE	1.59	1.55	0.03	0.12	
	(1.48)	(1.08)	(0.31)	(0.22)	
LNSALES	0.17				
	(0.22)				
ROE	0.02				
	(0.02)				
BETA	0.71				
	(0.69)				
LEV	1.68				
	(2.04)				
BOARDSIZE	0.25**	0.36***	0.35***	0.34***	
	(0.11)	(0.09)	(0.08)	(0.07)	
BOARDMEET	-0.20	-0.18			
	(0.14)	(0.11)			
BOARDSKILL	0.00	0.01			
	(0.01)	(0.01)			
Constant	8.50**	11.55***	9.77***	8.63***	10.29**
	(3.87)	(2.42)	(2.12)	(1.97)	(1.88)
Observations	76	79	80	80	80
0.	0.38	0.34	0.22	0.22	0.10
Adjusted $R^2$	0.28	0.29	0.18	0.19	0.09

## APPENDIX F: LTIP AS DEPENDENT VARIABLE

Model	3A	3B	3C	3D	3E
Variable	LNLTIP	LNLTIP	LNLTIP	LNLTIP	LNLTIP
ESG	0.15	0.19**	0.37***	0.35***	0.37***
	(0.10)	(0.08)	(0.06)	(0.06)	(0.06)
CEOAGE	-0.20	-0.17	-0.22		
	(0.24)	(0.26)	(0.22)		
CEOCHANGE	2.13	2.56	4.49*	5.84***	
	(3.52)	(3.28)	(2.27)	(1.46)	
LNSALES	0.44	1.10			
	(1.41)	(0.93)			
ROE	0.08**	0.07*			
	(0.03)	(0.04)			
BETA	1.97	2.57			
	(3.09)	(3.00)			
LEV	16.25**	15.87***			
	(6.11)	(5.38)			
BOARDSIZE	0.71				
	(0.68)				
BOARDMEET	-0.20				
	(0.15)				
BOARDSKILL	-0.08				
	(0.06)				
Constant	-6.86	-21.74	-7.36	-18.52***	-18.83***
	(18.69)	(15.87)	(13.28)	(4.72)	(4.63)
Observations	29	29	30	30	30
$R^2$	0.71	0.61	0.42	0.39	0.32
Adjusted R <sup>2</sup>	0.54	0.48	0.35	0.35	0.30

 Adjusted n
 0.0.1

 Standard errors in parentheses
 \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01</td>