

Stockholm School of Economics
Department of Accounting and Financial Management
Bachelor Thesis
May 2021

The relationship between CSR performance and tax avoidance

Do firms view CSR expenses and tax payments as substitutes or complements and is the perception affected by firms' customer models?

André Sjögren
24413@student.hhs.se

Oskar Sjöström
24421@student.hhs.se

Abstract

We examine whether companies view CSR expenses and tax payments as substitutes or complements and if perceptions differ between close-to-market and business-to-business firms by looking at the relationship between CSR performance and tax avoidance. To investigate this, we use fixed effects regression models on an unbalanced dataset consisting of public firms with headquarters in the Nordics and UK. To capture tax avoidance, we use effective tax rate measures that are designed to capture non-conforming tax avoidance. We find consistent evidence that the relationship between CSR performance and tax avoidance is negative and that this relationship is stronger for firms with close-to-market customer models. Our evidence suggests that, on average, firms regard CSR expenses and tax payments as complements and that close-to-market firms are more likely to stay true to this perception.

Tutor: Katerina Hellström

Key Words: Corporate social responsibility, ESG, Tax avoidance, Customer models, Corporate incentives

Acknowledgements:

We are especially grateful to our tutor Katerina Hellström, Assistant Professor at Stockholm School of Economics, for her insightful comments and guidance throughout the development of this thesis. Furthermore, we thank Carl Hvarfner for his assistance with our statistical approach and Susanne Sjöström for her remarks on our thesis. We would also like to extend our gratitude to Milda Tylaite, Assistant Professor at Stockholm School of Economics for her invaluable input in the comprehension of tax research in our thesis.

Table of Contents

1 INTRODUCTION	3
1.1 CONTRIBUTION	4
1.2 DELIMITATIONS	5
1.3 DISPOSITION.....	5
2 THEORY	5
2.1 CORPORATE SOCIAL RESPONSIBILITY	5
2.2 TAX AVOIDANCE	6
2.3 RELATIONSHIP BETWEEN CSR AND TAX AVOIDANCE.....	7
2.3.1 <i>Positive relationship between CSR and tax avoidance</i>	7
2.3.2 <i>Negative relationship between CSR and tax avoidance</i>	8
2.3.3 <i>Ambiguous relationship between CSR and tax avoidance</i>	9
2.4 CUSTOMER MODELS RELATIONSHIP WITH CSR AND TAX AVOIDANCE.....	9
2.5 HYPOTHESIS DEVELOPMENT.....	10
2.5.1 <i>Main hypothesis</i>	10
2.5.2 <i>Second hypothesis</i>	10
3 METHODOLOGY	11
3.1 DATA SAMPLE	12
3.2 PEARSON’S CORRELATION COEFFICIENT.....	14
3.3 REGRESSION MODELS	14
3.4 VARIABLES	16
3.4.1 <i>Dependent variable</i>	16
3.4.2 <i>Main independent variable</i>	18
3.4.3 <i>Moderating variable</i>	19
3.4.4 <i>Control variables</i>	19
4 RESULTS	21
4.1 DESCRIPTIVE STATISTICS	21
4.2 PEARSON’S CORRELATION COEFFICIENT.....	23
4.3 REGRESSION RESULTS	25
4.3.1 <i>Main hypothesis</i>	25
4.3.2 <i>Second hypothesis</i>	26
4.4 ROBUSTNESS TESTS.....	27
4.4.1 <i>Robustness test – main hypothesis</i>	27
4.4.2 <i>Robustness test – second hypothesis</i>	28
5 DISCUSSION.....	30
5.1 RESEARCH METHOD	30
5.1.1 <i>Data selection</i>	30
5.1.2 <i>Measuring tax avoidance</i>	30

5.2 ANALYSIS OF RESULTS	31
5.2.1 <i>Hypotheses</i>	31
5.2.2 <i>Control variables</i>	32
6 CONCLUSION	34
7 FURTHER RESEARCH	35
REFERENCES	36
APPENDIX	42

1 Introduction

In the current corporate climate, companies are more exposed, and customers, businesses and consumers alike, expect increasing transparency. Corporate Social Responsibility (CSR) and tax avoidance affect a company's reputation and performance. However, the perception of how CSR and tax are related differs. Firms use different approaches and policies, and contrasting schools claim that CSR expenses and tax payments act as either substitutes or complements.

An effective way to measure corporate perceptions on CSR expenses and tax payments is by looking at the relationship between CSR performance and tax avoidance. This relationship has been studied quite extensively in public companies, but in a limited number of countries and regions: in the US by Hoi et al. (2013), Watson (2015), and Davis et al. (2016); in Australia by Lanis and Richardson (2012); and in the European market by van den Heuvel (2019). Research on moderating variables affecting this relationship is, however, scarce. One exemption is Watson's study that sought to provide nuance by using earnings performance as a moderating variable, as resource availability is a factor determining what a company can commit to CSR activity.

This thesis investigates the relationship between CSR performance and tax avoidance of public firms in the Nordics and UK. Our research aims to understand whether corporations perceive CSR expenses and tax payments as substitutes or complements. We expect that our study will indicate a negative relationship between CSR performance and tax avoidance and predict that companies with higher CSR scores pay more taxes. In addition, we examine if a firm's customer model influences this relationship. Close-to-market (C2M) firms have higher customer awareness and lower customer concentration than business-to-business (B2B) firms, increasing firm exposure. We anticipate that customers may affect corporate strategy and decision-making regarding CSR activity and tax avoidance. Our study aims to address the following research question:

Do firms view CSR expenses and tax payments as substitutes or complements, and is the perception affected by firms' customer models?

The results of our study are of interest to a vast array of corporate stakeholders. The study contributes to investors seeking to understand how firms react to societal expectations and how

reputational costs differ between C2M and B2B firms. It is also of interest for firms' internal decision-making processes regarding CSR and tax avoidance strategies, as it enables companies to benchmark against firms with similar and different customer models. From a broader perspective, the results are of interest to anyone who wishes to understand the relationship between CSR and tax avoidance and how firms' customer models affect this relationship.

To examine the relationship between CSR performance and tax avoidance, we use a fixed effects regression model on an unbalanced dataset. In addition, we build on this regression model by adding our moderating variable: companies' customer model. For the CSR performance component, we look at ESG-scores from the Eikon Database by Thomson Reuters. We capture the tax avoidance component by three measures of effective tax rate: cash effective tax rate (CETR), GAAP¹ effective tax rate (GETR), and long-run effective tax rate (LCETR).

The results of our main test, using CETR as a dependent variable, exhibit that firms with higher CSR activity are less likely to engage in tax avoidance. Our robustness tests, using GETR and LCETR as dependent variables, show similar results. The second test, incorporating the moderating variable, indicates that C2M firms have a stronger negative relationship between CSR performance and tax avoidance than B2B firms. This implies that C2M firms' decisions on CSR activity and tax avoidance are more affected by their close relationship with consumers.

1.1 Contribution

Our study contributes to the existing literature on the CSR and tax avoidance relationship in two ways. Firstly, by conducting the study on public firms with headquarters in the Nordics and UK between 2010-2020, we add research on a new region in a more recent period. Secondly, we analyze the relationship between CSR and tax avoidance by using our moderating variable of the company's customer model. By dividing firms into C2M and B2B companies, we provide evidence of a significant variable affecting the relationship between tax avoidance and CSR activity. To the best of our knowledge, no study has previously set out to explain the relationship with this moderating factor.

¹ General accepted accounting principles

1.2 Delimitations

We have limited our study to publicly listed companies with headquarters in the Nordics and UK during 2010-2020. The data represents companies from the following indices: OMXCPI, OMXHPI, OMXIPI, OSEAX, OMXSPI, and FTSE All-Share index. Due to extensive regulations for companies listed on these exchanges, the average company in this study is larger than the average public company in the separate countries. The study does not examine other tax strategies such as owner's taxes, personnel taxes, or value-added taxes. We do not investigate differences conforming taxes in this paper.

1.3 Disposition

The study consists of 7 sections. Section 2 contains reviews of previous literature and theories, followed by the development of the hypotheses. Section 3 explains the method and regression models used in the study and sample selection. Section 4 contains descriptive statistics, regression models, and robustness tests. Section 5 and 6 present the results and analysis. Lastly, section 7 presents the conclusion of the study, followed by suggestions for future research.

2 Theory

We base our theory on literature studies. The literature we describe below is divided into four parts; together, they drive the development of our hypotheses. We will start by defining CSR and tax avoidance. Then, we review previous studies on the relationship between the two. Finally, we look at how our moderating variable could potentially influence the relationship.

2.1 Corporate Social Responsibility

The modern definition of CSR has its roots in Archie Carroll's four-part definition from 1979, where he defines that CSR integrates economic, legal, ethical, and philanthropic responsibilities into corporate decision making. Together, the four components form a pyramid, where the profitability of the firm constructs the base and philanthropic activities occupy the pinnacle (Appendix 1). Societies judge businesses depending on where they are in Carroll's (2010) pyramid and what they are doing at the different levels.

One of the main reasons for the many benefits of CSR engagement derives from Penrose's (1959) resource slack theory. Resource slack refers to resources in abundance and is in direct contradiction to resource scarcity. Companies with resource slack are thought of as wealthy and strong companies with the means to grow (Lys et al., 2013). Therefore, resource slack is viewed as a favorable attribute to a company as it, e.g., decreases uncertainty among investors. An indication of resource slack is CSR spending; CSR spending is not considered a necessity for firm survival and can thus be seen as a voluntary expense. Therefore, investing in CSR activities signals that the firm is healthy. Lys et al. found that when companies CSR spending exceeds investor expectations, the companies experience positive stock returns.

More importantly, engaging in CSR is also likely to enhance a company's reputation, increasing the demand for a company's services or products. Suchman's (1995) legitimacy theory can explain how a company's reputation is affected by CSR activity. The theory considers legitimacy as generalized perceptions or assumptions that a firm's actions are desirable and appropriate within the frame of socially accepted values and beliefs. Earning a place within the frame improves a company's reputation, increasing a firm's likelihood of being an option for consumers. Therefore, legitimacy is a driving force for a company's engagement in CSR (Doh et al., 2009).

2.2 Tax avoidance

There are different ways to measure tax avoidance, e.g., book-tax differences, effective tax rate (ETR) measures, and by looking at tax-sheltering activity. Research on tax avoidance has mainly been covered by measuring book-tax differences (Wilson, 2009) and GETR (Robinson et al., 2010). The main point of Hanlon and Heitzman's (2010) study on tax avoidance is that not all measures are appropriate for all research questions. In the existing literature on the relationship between CSR performance and tax avoidance, ETR measurements have been predominantly used to measure the dependent variable. Hoi et al. (2013) and Watson (2015) use CETR to capture tax avoidance, and Davis et al. (2016) use LCETR. The measures are based on tax expenses or cash tax payments in relation to pre-tax income. Thus, the studies capture non-conforming tax avoidance, referring to taxable income reductions and not book

income reductions. This is opposed to conforming tax avoidance, which reduces both book and taxable income (Badertscher et al., 2019). As the samples of Hoi et al., Watson, and Davis et al. represent public companies, non-conforming tax avoidance represents the most relevant side of tax avoidance, as public companies have incentives to maximize their book income to elevate firm value (Mills and Newberry, 2001).

Taxes represent a significant share of the costs a company undertakes. Therefore, the incentives to avoid taxes are strong (Desai and Dharmapala, 2009). When a company evaluates which level of tax avoidance to engage in, multiple factors affect the decision; tax rate, probability of detection and punishment, penalties when detected, and risk-aversion of firms are factors included in the decision (Allingham and Sandmo, 1972). The punishment can both be attributed to governments but also customers. Research has shown that societies' skepticism of tax avoidance is high as it comes with costs for governments (Dyreng et al., 2016, Dezoort et al., 2018). Campbell's (2007) study found that higher earnings results negatively affect tax avoidance, suggesting that companies who can afford to pay taxes do. This is potentially attributable to costs of detection outweighing tax savings. Furthermore, managers' incentives to increase personal benefits can explain higher levels of tax avoidance (Rego and Wilson, 2012). Studies have found tax avoidance to be negatively associated with greater levels of incentive compensations, an effective tool in corporate governance (Armstrong et al., 2012).

2.3 Relationship between CSR and tax avoidance

The relationship between CSR performance and tax avoidance has gained attention in the research sphere in recent years. To a certain extent, the seemingly contradicting activities of engaging in CSR activities whilst simultaneously taking corporate decisions that minimize tax payments can explain the increased interest, as taxes are a means for governments to finance education, hospitals, infrastructure, and more. The results of previous studies on the relationship differ.

2.3.1 Positive relationship between CSR and tax avoidance

Sikka's (2010) study provides evidence showing that companies promise responsible conduct while simultaneously indulging in tax avoidance. The paper investigated the difference between corporate talk, decisions, and actions with regards to CSR. The study is not based on

a statistical sample as companies rarely publicize their tax accounts. Instead, it is a qualitative study based on cases brought to public attention by parliamentary courts, regulators, and investigative journalists. The study finds that talk and action yield negative outcomes, emphasizing that CSR-active companies indulge in tax avoidance.

One of the more recent studies, which provides quantitative analysis, consistent with Sikka (2010) on the relationship, was published by Davis et al. (2016). The authors use a sample of 5 588 observations between 2002-2011 on US public companies. To analyze the relationship, Davis et al. collect ESG ratings from the MSCI annual dataset, previously referred to as the KLD database. Davis et al. find that high performing CSR firms, companies in the highest quintile of CSR engagement, avoid more taxes. Their conclusions regarding these results emphasize that companies view CSR expenses and tax avoidance as substitutes. In contrast to previous studies, their study examines five-year cash effective tax rates, which means that the eliminations in their sample differ from other studies. Using five-year LCETR, they only eliminate observations with average negative earnings over the period instead of eliminations for each year of negative earnings. This has the potential to explain why the results differ from other studies.

2.3.2 Negative relationship between CSR and tax avoidance

Hoi et al. (2013) find a negative relationship between CSR performance and tax avoidance, using CETR as a proxy for tax avoidance. In their study, CSR activity is divided into socially responsible firms and socially irresponsible firms. The authors adopt a broader view on CSR as actions affecting all the firm's stakeholders. From their perspective, irresponsible CSR behavior includes activities that are damaging to corporate governance, employee relations, communities, and more. The data in the study is collected from the KLD database. The sample in their study consists of US companies in 2003-2009. From this, they obtain 11 096 observations. Their research found that firms with more irresponsible CSR activity have a higher probability of engaging in tax sheltering and have lower CETR than socially responsible firms. Another study by Lanis and Richardsson (2012) focuses on the association of CSR and tax aggressiveness amongst 408 publicly listed Australian corporations for the fiscal year of 2008/2009. They find that the CSR coefficient is negatively associated with tax aggressiveness, indicating a complementary association between CSR and tax avoidance.

2.3.3 Ambiguous relationship between CSR and tax avoidance

Watson's (2015) research intended to provide nuance on the existing literature by investigating how company earnings performance moderate the relationship between CSR and tax avoidance. To compare his results to previous literature, he followed Hoi et al. (2013) by limiting his research to US corporations between 2003-2009. Furthermore, he used the KLD database to measure CSR activity and excluded firms with negative pre-tax income, in line with Hoi et al. To measure the effects of the earnings performance as a moderating variable, Watson created indicator variables for high earnings performance and low earnings performance. Companies with high earnings performance were grouped as firms with a ROA $> 10\%$, and companies with low earnings performance were grouped as firms with a ROA $< 10\%$. Watson found a positive relation between CSR and tax avoidance, consistent with Davis et al. (2016), in socially responsible firms that have low earnings performance. Moreover, he found a negative relation between CSR and tax avoidance in socially irresponsible firms with poor earnings performance, in line with Hoi et al. Watson's evidence indicates that firms prefer to act as good corporate citizens if they can afford to, suggesting that firms with resource slack will invest in CSR and not engage in tax avoidance. However, he finds that firms that are inattentive to non-shareholders will not act as good corporate citizens regardless of their financial situation.

2.4 Customer models relationship with CSR and tax avoidance

Previous research has investigated the relationship between the characteristics of firms' customer models with CSR and tax avoidance independently. Haddock-Fraser and Fraser (2008) distinguished two customer models: close-to-market (C2M) and business-to-business (B2B), where C2M firms were defined as companies that supply goods or services directly to consumer markets and/or companies that supply their products to consumers via retailers. B2B firms were defined as companies that exclusively supply products to other business entities.

Haddock-Fraser and Fraser (2008) found that customer awareness is higher for C2M firms, which could be explained by C2M firms receiving more media attention than B2B firms. Furthermore, due to higher levels of customer awareness, they find that C2M firms report their CSR activity more frequently than B2B firms. This indicates that C2M firms have stronger incentives to report good CSR performances. This is supported by Wen et al.'s (2021) study

which showed that customer concentration is negatively related to CSR activity, as C2M firms are characterized by low customer concentration.

Hanlon and Slemrod (2007) studied stock price reactions to news regarding tax aggressiveness and found that a company's stock price declines to such news. They find that the negative response is amplified for companies in the retail sector, which are represented in the C2M segment. Further research emphasizing lower incentives for retail firms to not engage in tax avoidance shows that firms with greater exposure to reputational damage among consumers will engage in lower levels of tax avoidance (Austin and Wilson, 2017). Huang et al. (2016) study customer concentration effects on tax avoidance. They find that firms with high customer concentration have lower ETRs than firms with low customer concentration. suggesting that B2B firms avoid more taxes than C2M firms.

2.5 Hypothesis development

2.5.1 Main hypothesis

Our main hypothesis derives from previous literature on CSR, tax avoidance and the relationship between the two. To increase the likelihood of being an option for customers, companies will benefit from being viewed as legitimate. By actively engaging in CSR activities, companies can increase their legitimacy in society. However, a firm's legitimacy can also be damaged. Negative media attention regarding tax avoidance hampers societal views of companies. This implies that societies are more likely to view CSR expenses and tax payments as complementary activities. In increasingly transparent company climates with higher societal expectations, we expect that firms in our sample, which represent more recent firm-years, will have stronger incentives to be good companies. Firms' dependence on societal acceptance suggests a negative relationship between CSR and tax avoidance. Our main hypothesis is therefore defined as:

H₁: The relationship between CSR performance and tax avoidance will be negative.

2.5.2 Second hypothesis

Our second hypothesis derives from previous literature on the relationship customer models with CSR and tax avoidance. To analyze the moderating effect of firms' customer models on the relationship between CSR performance and tax avoidance, it becomes more intuitive to

divide C2M and B2B firms into two groups: firms with high CSR performance and firms with low CSR performance. C2M firms are characterized by receiving more media attention and having higher customer awareness, leading to more frequent CSR reporting for these firms. Thus, C2M firms have stronger incentives to engage in CSR. However, we do not expect this to be true for C2M firms with low CSR performance, as they are more inattentive to non-shareholders. Thus, we expect C2M firms with high CSR performance to be characterized by media attention and customer awareness. However, this will not hold for C2M firms with low CSR performance.

Firms with greater exposure to reputational damage among consumers engage less in tax avoidance. As C2M firms have greater consumer exposure, they have stronger incentives to refrain from tax avoidance than B2B firms. Again, we expect this to be true for C2M firms with high CSR performance, as they are attentive to non-shareholders, but not for C2M firms with low CSR performance.

There are four groups for different levels of tax avoidance: C2M firms with high and low CSR performance and B2B firms with high and low CSR performance. We expect C2M firms with high CSR performance to avoid taxes less than B2B firms with high CSR performance as C2M firms have stronger incentives to do so. However, we do not expect a difference in tax avoidance between C2M and B2B firms with low CSR performance, as both are inattentive to non-shareholders. Thus, we expect a stronger negative relationship between CSR performance and tax avoidance for C2M firms compared to B2B firms. Our second hypothesis is therefore defined as:

H₂: The negative relationship between CSR performance and tax avoidance will be stronger for companies with close-to-market customer models.

3 Methodology

This section is devoted to descriptions of our sample and its characteristics. It also includes presentations on the regression models we have used to test our hypotheses and descriptions of the dependent, independent, and moderating variables. The study is based on data collected from the Eikon Database by Thomson Reuters.

3.1 Data sample

Careful consideration has been given to the selection of our sample. We have aimed to conduct our study on a sample of firms from markets with high similarities while simultaneously ensuring that the study is carried out on a great enough number of observations to reach significant results. Moreover, the study aims to analyze the corporate perception of how CSR expenses and tax payments are related in a new region to contribute to the existing literature by examining the company climate that exists in the Nordics and UK. Consequently, the sample is conducted on public firms in the Nordics (Sweden, Norway, Denmark, Finland, and Iceland) and the UK (England, Wales, Scotland, and Northern Ireland). Research conducted in our selected countries has exemplified that a lot of similarities exist. Ahmed et al.'s (2013) study found significant similarities with regards to CSR implementation in the two regions. Also, the Nordic countries and the UK all rank at the top of the National Corporate Responsibility Index. Furthermore, the Nordic countries and the UK are similarly competitive markets, according to Klaus Schwab (2019).

Our study focuses on public firms as they generally showcase their CSR engagement to a higher extent than private firms (Hickman 2020). This is a reason for our selection of Eikon as our source of data, as the database mainly focuses on large indices made up of public firms. Due to the lack of reported ESG-scores historically, our observations will encompass the period 2010-2020. Extending our research further back would be unsuitable, as our study intends to examine corporate perceptions in the current company climate.

Our sample is constructed of companies included in all-share indices from our selected countries. The sample consists of 1 432 firms from the following indices: OMXCPI (Denmark), OMXHPI (Finland), OMXSPI (Sweden), OSEAX (Norway), OMXIPI (Iceland), and FTSE All-share Index (UK). Some companies are listed on multiple exchanges; hence, we first exclude any present duplicates to ensure that each company is only represented once in the dataset. Secondly, we also exclude companies that are not based in the Nordics or UK by headquarter position. This was done to ensure that our study focuses on companies in the Nordics and UK, with similar incentives to engage in CSR performance and tax avoidance. Furthermore, a substantial part of the firms in the dataset lacks reported ESG-scores. We exclude these firms as they do not contribute to our analysis regarding the relationship between CSR and tax avoidance. In accordance with Zimmerman (1983), companies with negative

income or tax refunds are eliminated from the dataset. This is done as negative income, and tax refunds derail the ETR measures. In addition, we eliminate errors found in the data, as these errors will not add to the regression analysis. Lastly, in line with Hoi et al. (2013), Kim et al. (2012), and Watson (2015), we exclude companies within insurance, financial, and real estate industries due to their unconventional regulatory climates. The companies in our dataset are divided into industries based on the global industry classification standard (GICS). Finally, to restrain potential outliers from impacting the results, we controlled for outliers in the dataset by winsorizing the continuous variables at the 1st and 99th percentile. The exclusions give us a dataset with 2 350 observations across 410 firms. From our original set of countries, only Iceland is not represented due to our exclusion process.

Table 1. Removal process

	Firm-year observations
Total sample	13 400
(Removal of duplicates)	-700
(Removal of HQ outside the Nordics or UK)	-1 270
(Removal of missing ES-scores)	-7 283
(Removal of negative results and tax refunds)	-1 022
(Removal of errors)	-411
(Removal of finance, insurance, and real estate companies)	-364
Sample	2 350

Table 2. Sample distribution by country

Country	Firm-year observations
Denmark	181
Finland	204
Norway	127
Sweden	463
UK	1 375
Total	2 350

Table 3. Sample distribution by industry

Industry	Firm-year observations
Automobiles & Components	22
Capital Goods	500
Commercial & Professional Services	169
Communication Services	50
Consumer Durables & Apparel	151
Consumer Services	113
Energy	79
Food & Staples Retailing	45
Food, Beverage & Tobacco	152
Health Care Equipment & Services	95
Household & Personal Products	31
Materials	266
Media & Entertainment	91
Pharmaceuticals, Biotechnology & Life Sciences	97
Retailing	155
Semiconductors & Semiconductor	6
Software & Services	84
Technology Hardware & Equipment	69
Transportation	116
Utilities	59
Total	2 350

3.2 Pearson's correlation coefficient

We perform a Pearson's correlation coefficient test to analyze the relationship between our variables. The analysis will generate a number between -1 and 1 for every two variables, where -1 is highly negatively correlated, and 1 is highly positively correlated. A number close to 0 means that the correlation between the two variables is low. In addition, the test will provide information on multicollinearity problems. If there is a risk that the dataset suffers from multicollinearity, we will investigate variance inflation factors (VIF).

3.3 Regression models

The choice of using fixed or random effects for our regression model is based on the Hausman specification test. The test resulted in a $\text{prob} > \chi^2$ of 0.0412 (Appendix 2), which suggests that a fixed effects model should be used as the error term and the independent variables correlate in the panel data (Hausman and Taylor, 1981). Using a fixed effects regression model, we control for differences in the dataset across years, industries, and countries.

It is of importance to our study to analyze if our dataset suffers from heteroscedasticity. If the assumption of homoscedasticity is not true, the standard errors produced could be larger or smaller than if robust standard errors were computed (White, 1980). To investigate if the assumption of homoscedasticity holds, we perform a Breusch-Pagan test. The test results show

a prob>chi2 of 0.0000, leading to a rejection of the null hypothesis that our data is homoscedastic (Appendix 3). Thus, we will use a fixed effects regression model including fully robust standard errors to analyze the relationship between CSR performance and tax avoidance.

We use two fixed effects regression models, including fully robust standard errors, to test our two hypotheses. One without the moderating effect of company customer models, and one with the moderating effect:

$$CETR_{it} = \beta_0 + \beta_1 ESscore_{it} + \beta_2 C2M_{it} + \beta_3 ROA_{it} + \beta_4 Gscore_{it} + \beta_5 PPE_{it} + \beta_6 Intangibles_{it} + \beta_7 Cash_{it} \\ + \beta_8 Employees_{it} + \beta_9 MTBVE_{it} + \beta_{10} Leverage_{it} + \beta_{11} Leverage_{it} + \beta_{12} Size_{it} \\ + YearFixedEffects_i + CountryFixedEffects_{it} + IndustryFixedEffects_{it} + \varepsilon_{it}$$

$$CETR_{it} = \beta_0 + \beta_1 ESscore_{it} + \beta_2 C2M_{it} + \beta_3 ESscore_C2M_{it} + \beta_4 ROA_{it} + \beta_5 Gscore_{it} + \beta_6 PPE_{it} + \beta_7 Intangibles_{it} \\ + \beta_8 Cash_{it} + \beta_9 Employees_{it} + \beta_{10} MTBVE_{it} + \beta_{11} Leverage_{it} + \beta_{12} Leverage_{it} + \beta_{13} Size_{it} \\ + YearFixedEffects_i + CountryFixedEffects_{it} + IndustryFixedEffects_{it} + \varepsilon_{it}$$

3.4 Variables

The variables used in our regression model are summarized in table 4 below. The variables chosen have shown to be related to tax avoidance in previous literature.

Table 4. Definitions of variables

Variable	Definition
CETR	CETR is defined as cash taxes paid divided by pre-tax book income.
GETR	GETR is defined as tax expenses divided by pre-tax book income.
LCETR	LCETR is defined as the sum of the last five years' cash taxes paid divided by the sum of the last five years' pre-tax income.
ES-score	ES-score is defined as the average between the environmental score and social score provided.
C2M_ES-score	C2M_ES-score is defined as the C2M variable multiplied by the ES-score variable.
C2M	C2M is a dummy variable yielding 1 for C2M firms and 0 for B2B firms.
ROA	Return on assets for firm measured as operating income scaled by lagged assets.
G-score	G-score is defined as the governance score.
PPE	Property, plant, and equipment for firm scaled by lagged assets.
Intangibles	Intangible assets form firm scaled by total assets.
Cash	Cash holding for firm defined as cash and marketable securities scaled by lagged assets.
Employees	Natural logarithm of the number of employees for firm.
MTBVE	Market-to-book ratio for firm, at the beginning of year, measured as market value of equity scaled by book value of equity.
Leverage	Leverage of firm measured as long-term debt scaled by lagged assets.
Size	Natural logarithm of total assets for firm at the beginning of year.

3.4.1 Dependent variable

We define tax avoidance as the reduction of explicit taxes, in line with Dyreng et al. (2008). Therefore, we incorporate legal and illegal methods to minimize the amount of tax a company pays.

To capture the tax avoidance component, we look at three measurements of effective tax rate: CETR, GETR, and LCETR. Our main dependent variable is CETR. The GETR and LCETR are selected for our robustness tests for comparative reasons as no test fully captures all aspects of tax avoidance. As mentioned in section 2.2, the ETR measures are based on tax expenses or

cash tax payments in relation to pre-tax income. Thus, they capture non-conforming tax avoidance. As public companies make up our sample, capturing non-conforming tax avoidance is appropriate as public companies have incentives to maximize their book income (Mills and Newberry, 2001). We could also use book-tax differences to measure tax avoidance, as book-tax differences also capture non-conforming tax avoidance. However, to better relate our study to previous literature, we chose ETR measures. Measuring tax avoidance by tax sheltering activity is deemed to be inappropriate as it involves selection biases. The measurement only identifies those firms that have either been caught and formally charged or disclosed tax sheltering activities (Hanlon and Heitzman, 2010).

We propose that incorporating three ETR measures as proxies for tax avoidance will give a better representation of our broad definition for tax avoidance. The measures in our study capture the average tax rate per Swedish Krona. As our research examines tax avoidance, lower ETRs will indicate higher tax avoidance. Below we discuss some technicalities of the measures.

The CETR is computed using the cash taxes paid from the cash flow statement. The cash taxes paid is affected by tax deferrals and thus detects tax deferral strategies, referring to instances where companies delay paying taxes, e.g., accelerated depreciation. However, the measurement does not detect changes in tax accounting accruals (Hanlon and Heitzman, 2010). The CETR for a given firm i for year t is calculated as follows:

$$CETR_{i,t} = \frac{Cash\ Tax\ Paid_{i,t}}{Pretax\ income_{i,t}}$$

The GETR measurement captures the total tax expenditures of firms as reported in their books. In comparison to the CETR measurement, the GETR does not detect tax strategies that defer taxes. However, the measurement does detect changes in the tax accounting accruals. Thus, the measurements work as complements. The GETR for a given firm i for year t is calculated as follows:

$$GETR_{i,t} = \frac{Tax\ expense_{i,t}}{Pretax\ income_{i,t}}$$

The LCETR is a long-run measure of the CETR. The measurement avoids year-to-year volatility in annual CETR, counteracting the main disadvantage with the CETR measure (Hanlon and Heitzman, 2010). For this study, we have followed Davis et al. (2016) and used five-year CETR to create the long-run measurement. LCETR for a given firm i for year t is calculated as follows:

$$LCETR_{i,t} = \frac{Cash\ Tax\ Paid_{i,t-4} + \dots + Cash\ Tax\ Paid_{i,t}}{Pretax\ income_{i,t-4} + \dots + Pretax\ income_{i,t}}$$

3.4.2 Main independent variable

The main independent variable in this study is a measurement that reflects CSR. As an indicator of CSR performance, we will use ESG-scores from the Eikon Database by Thomson Reuters. ESG is short for Environmental, Social, and Governance. Thomson Reuters captures and calculates more than 400 company-level ESG measures of which 178 data points are included to produce a score between 0 and 100 (Refinitiv). They are grouped into ten categories distributed under the three umbrella terms. The environmental element encompasses resource use, emissions, and innovation. The social element encompasses workforce, human rights, community, and product responsibility. The governance element encompasses management, shareholders, and CSR strategy (Thomson Reuters, 2017). The data is collected through publicly reported information from more than 70 key performance indicators. Therefore, the Eikon Database is considered one of the most comprehensive ESG databases, with a history of conducting these surveys since 2002.

In contrast to previous studies on the relationship between CSR performance and tax avoidance (Hoi et al., 2013; Watson, 2015; Davis et al., 2016), we do not use the MSCI annual dataset, previously referred to as the KLD database, for our CSR measurements. This is due to the MSCI database's lack of coverage in the European region. The previous studies mentioned in this paragraph all base their studies on American public firms, for which the MSCI database is suitable.

As corporate governance has been shown to affect the relationship between CSR and tax avoidance independently, we exclude the measurement. Therefore, the score used to measure

CSR is an ES-score, and we add the G-score to the control variables. This is in accordance with the previous literature (Hoi et al., 2013; Watson, 2015; Davis et al., 2016).

3.4.3 Moderating variable

To provide nuance on the relationship between CSR performance and tax avoidance, we look at how firms' customer models moderate the relationship. In line with Haddock-Fraser and Fraser (2008), we distinguish two company customer models: C2M and B2B. Thus, we define C2M firms as companies that supply goods or services directly to consumer markets and/or companies that supply products to consumer markets via retailers. B2B firms are defined as companies that exclusively supply products to other business entities. The data collection was done manually by reviewing customer profiles in each of the 410 companies' annual reports of 2020. We realize that this could bias the data as some companies may have changed customer models over the past decade. To investigate the potential bias, we selected a random sample of 41 companies and reviewed their annual reports of 2010. From our random sample, none of the companies had changed customer models. This indicates that it is unlikely that changed customer models will bias our sample in a meaningful way. Our moderating variable is calculated by multiplying the ES-score with a dummy variable, where C2M firms yield a 1 and B2B firms a 0.

3.4.4 Control variables

Previous literature has found the following control variables to be important determinants of tax avoidance (Dyrengr et al., 2008; Hoi et al., 2013; Watson, 2015), wherefore they are included in our study. We also predict their coefficient signs (+/-).

The one variable previous literature has not included as a control variable is the **C2M** variable. However, we do this to control for differences in tax avoidance between C2M and B2B firms. As discussed in section 2.3.3, research suggests that C2M firms have stronger incentives to engage in CSR and refrain from tax avoidance (Hanlon and Slemrod, 2007; Hanlon and Slemrod, 2008; Austin and Wilson, 2017). We predict the coefficient sign to be (+).

We include **return on assets (ROA)** as a variable to control for profitability. Lanis and Richardson (2012) and Huseynov et al. (2012) found a positive relationship between profitability and tax avoidance, which the resource slack theory could explain. When earnings are low, firms attempt to allocate fewer resources to taxation (Campbell, 2007), leading to

higher tax avoidance. Furthermore, lower earnings lead to less political scrutiny, resulting in higher tax avoidance (Zimmerman, 1983). However, studies have also shown ROA to be negatively associated with tax avoidance (Siregar and Widyawati, 2016). We do not predict the coefficient sign (?).

As **corporate governance (G-score)** is a broad term, various governance mechanisms affect a company's level of tax avoidance differently. Kovermann and Velte (2019) show in their study that corporate governance institutions both have the potential to increase and decrease a firm's tax avoidance. For example, Chi et al. (2017) show that incentive compensation is negatively related to tax avoidance. McClure et al. (2018) showed that another corporate governance tool, outside directors on the board, leads to more tax avoidance. We do not predict the coefficient sign (?).

The variable **property, plant, and equipment (PPE)** has shown to be negatively related to taxes in prior studies (Hoi et al., 2013; Davis et al., 2016). We predict the coefficient sign to be (-).

Intangible assets are difficult to measure accurately. Therefore, they are often transferred between tax jurisdictions (Gravelle, 2015). Shackelford et al. (2007) found that companies transfer intangible assets between tax jurisdictions to lower their tax obligations. We predict the coefficient sign to be (-).

The empirical results on the relationship between tax avoidance and **cash** show that they are positively related (Hoi et al., 2013; Davis et al., 2016). The reason might stem from tax avoidance being a way for companies to increase their cash holdings (Huang et al., 2016). We predict the coefficient sign to be (-).

Research has shown that **employee** relations are more challenging to maintain high in companies with more employees (Tansel and Gazioglu, 2013). Furthermore, Lee et al. (2020) showed that news on tax avoidance is negatively related to employee relations for a company. Thus, companies with more employees have stronger incentives to refrain from tax avoidance. We predict the coefficient sign to be (+).

Market-to-book value of equity (MTBVE) has recorded mixed results in previous literature. Hoi et al. (2013) found a positive relation, while Davis et al. (2016) and Watson (2015) found a negative relation. We do not predict a coefficient sign (?).

Harrington and Smith (2012) found that firms with higher **leverage** may be less willing to engage in tax avoidance. One reason suggested by Gupta and Newberry (1997) is that a firm's financing decision is related to tax outcomes as leverage increases interest payments, which are tax deductible. We predict the coefficient sign to be (-).

Size has been shown to be positively related to tax avoidance. Larger firms use their resources to influence the political process to lower their taxes and develop expertise in tax planning (Siegfried, 1972). However, the political cost hypothesis claims the opposite, that bigger firms are under more scrutiny and, therefore, pay more taxes. Empirical evidence shows mixed results (Zimmerman, 1983; Porcano, 1986; Mills et al., 1998). We do not predict a coefficient sign (?).

There are multiple control variables included in prior literature that have been neglected for this research paper. Control variables that we would like to include but were not selected due to scarcity of data and lack of availability are loss carryforwards, foreign income, equity earnings income, and R&D expenses.

4 Results

In this section, we describe our empirical results of the data analysis. Firstly, we present the descriptive statistics of the variables and the insights gained from these. Secondly, we describe our Pearson's correlation coefficient test. Thirdly, we discuss the results of our main and second regression models. Our robustness tests then conclude the chapter.

4.1 Descriptive statistics

Table 5 shows our dependent, independent, and control variables in order, with their respective number of observations, mean and standard deviation. We winsorize the continuous variables at the 1st and 99th percentile of their distribution to prevent outliers from affecting our results. The variables used as proxies for tax avoidance, CETR, GETR, and LCETR, all record ETRs of roughly 24%. This is expected as the statutory tax rates in the Nordic countries, and the UK

have been set between 19-28% during the last decade². Our ETR measures generate similar mean values compared to prior research (Watson, 2015; Hoi et al., 2013). Our mean CETR of 24.98% is approximately 0.3 percentage points lower than Hoi et al.'s results. The standard deviation of our CETR is higher than that of previous research. Our study involves a smaller sample than previous research and includes several countries, this can plausibly explain the higher standard deviation, as previous research has mainly focused on single countries. As mentioned in section 3.4.1, the differences in mean values between the ETR measures can be explained by differences in tax accounting accruals and tax deferrals between the year.

As our measure of CSR performance differs from previous research, it is difficult to benchmark. We can see that the ES-score yields a mean value of 52.98, where 50 is the limit between a satisfactory and good performance (Refinitiv). In comparison to prior research with similar measurements (van den Heuvel, 2019), the standard deviation of our results is somewhat lower.

The C2M variable yields a mean value of 0.33, which shows that our sample is approximately compiled of 33% C2M companies and 67% B2B companies. The ROA variable exhibits a mean return of 11.92%, which is higher than prior research (Hoi et al., 2013; Watson, 2015). However, as our sample consists of larger companies, the ROA is expected to be higher than prior research (Gaio and Henriques, 2018). The G-score with a mean of 53.68 is slightly higher than the ES-score at 52.98. The G-score variable's standard deviation is also higher than that of the ES-score, which stems from a bigger spread of values. Our PPE variable and intangible assets variable show that the companies in the study have a larger share of PPE than intangible assets in relation to total assets, 44% and 10%, respectively. Compared to prior research (Hoi et al.; Watson), the relation between the two is more unbalanced. The results show a lower cash ratio mean of 0.08, meaning that cash and marketable securities stand for approximately 8% of companies' total assets. The results also show a large standard deviation caused by a large variance of cash ratios in the sample. The variables size and employees are significantly higher than prior research which stems from our sample, see section 1.2. Our mean company has 9 045 full-time employees and total assets of 26.5 billion SEK.

² <https://home.kpmg/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>

Table 5. Descriptive statistics

Variable	Obs	Mean	Std. Dev.
CETR	2 350	.2498	.1584
GETR	2 350	.2445	.0937
LCETR	2 350	.2429	.1124
ES-score	2 350	52.98	21.38
C2M	2 350	.3323	.4711
ROA	2 350	.1192	.0742
G-score	2 350	53.68	21.60
PPE	2 350	.4387	.2383
Intangibles	2 350	.1013	.1191
Cash	2 350	.0814	.0734
Employees	2 350	9.110	1.431
MTBVE	2 350	7.072	10.28
Leverage	2 350	.1816	.1516
Size	2 350	23.99	1.406

Notes: CETR, GETR, LCETR, ES-score, ROA, G-score, PPE, Intangibles, Cash, Employees, Leverage, and Size have been winsorized at the 1st and 99th percentile.

4.2 Pearson's correlation coefficient

The dependent variables CETR, GETR, and LCETR show to be positively correlated. The CETR and GETR variables show a strong correlation, whilst their correlation with the LCETR is lower. This is natural since LCETR displays the last 5 years of cash taxes paid in relation to pre-tax earnings, whilst the other two display the same year's taxes. In addition, they correlate with each other on a 1% significance level. Furthermore, the ES-score variable is positively correlated with the three dependent variables on a 1% significance level. The G-score component is also positively correlated with ES-score on a 1% significance level, in line with prior research.

We conducted a Pearson's correlation coefficient test to analyze the regression components' relation to each other and to analyze if we have multicollinearity problems in the dataset. As we notify high correlations between certain variables, where the highest is recorded between C2M and C2M_ES-score, we conduct investigate VIF. The results show that some variables have relatively high VIF values. C2M and C2M_ES-score yield values of 4.531 and 4.836, respectively, while our average VIF is 2.568 (Appendix 4). As our reference limit for having multicollinearity problems is a VIF over 5, we suggest that our dataset is healthy.

Table 6. Pearson's correlation coefficient

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) CETR	1.00							
(2) GETR	0.56***	1.00						
(3) LCETR	0.54***	0.40***	1.00					
(4) ES-score	0.17***	0.16***	0.13***	1.00				
(5) C2M_ES-score	0.02	0.01	-0.03	0.30***	1.00			
(6) C2M	-0.07***	-0.06***	0.09***	0.04*	0.79***	1.00		
(7) ROA	-0.02	-0.02	-0.03	-0.01	-0.04*	-0.00	1.00	
(8) G-score	0.12***	0.11***	0.09***	0.41***	0.12***	0.01	-0.05**	1.00
(9) PPE	-0.05***	-0.02	-0.08***	0.07***	0.05**	0.04*	-0.01***	0.04**
(10) Intangibles	0.08***	0.03	0.08***	-0.05***	-0.08***	-0.08***	-0.04*	0.03
(11) Cash	-0.04**	-0.04**	-0.05**	-0.15***	0.04*	0.07***	0.25***	-0.12***
(12) Employees	0.10***	0.07***	0.12***	0.42***	0.24***	0.17***	-0.22***	0.24***
(13) MTBVE	-0.05**	-0.04*	-0.04*	-0.12***	-0.05**	-0.00	0.36***	-0.11***
(14) Leverage	0.02	0.05**	0.02	0.07***	0.02	0.03	-0.06***	0.08***
(15) Size	0.08*	0.07***	0.07***	0.48***	0.15***	0.07***	0.01	0.32***

Notes: The symbols *, **, and *** indicate significance levels of 0.1, 0.05, and 0.01 levels respectively.

Table 6. Pearson's correlation coefficient

Variables	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) CETR							
(2) GETR							
(3) LCETR							
(4) ES-score							
(5) C2M_ES-score							
(6) C2M							
(7) ROA							
(8) G-score							
(9) PPE	1.00						
(10) Intangibles	0.20***	1.00					
(11) Cash	-0.23***	-0.02	1.00				
(12) Employees	0.10***	-0.07***	-0.23***	1.00			
(13) MTBVE	-0.10***	0.03	0.28***	-0.18***	1.00		
(14) Leverage	0.35***	0.20***	-0.20***	0.18***	-0.06***	1.00	
(15) Size	0.27***	0.02	-0.35***	0.74***	-0.29***	0.23***	1.00

Notes: The symbols *, **, and *** indicate significance levels of 0.1, 0.05, and 0.01 levels respectively.

4.3 Regression results

4.3.1 Main hypothesis

The main fixed effects regression model results, including fully robust standard errors, are presented in table 7 below. The explanatory power of the main model, measured as the adjusted R-squared, is 0.1032. The results show that our main independent variable, ES-score, significantly explains the dependent variable, CETR, on a 1% level. Moreover, the ES-score variable yields a positive coefficient ($\beta_{\text{ES-score}}=0.0012$); thus, as a company's ES-score increases, the lower a company's tax avoidance will be. The ES-score coefficient looks to have a marginal effect on CETR compared to the control variables in table 7. However, the ES-score variable yields a number between 0 and 100. Apart from G-score, size, and employees, the control variables produce a number between 0 and 1. Thus, ES-score has a stronger coefficient than implied in table 7.

Our intercept in the main regression model yields a coefficient of 0.37 on a 1% significance level. The interpretation is that if all variables were 0 for a company, the company would have a CETR of 37%. However, as a company needs assets, employees, intangible assets, and more to operate, this is not a possible outcome of a company's CETR.

The control variables that show to be significant in the main model are G-score ($p<.05$), intangible assets ($p<.01$), employees ($p<.1$), market-to-book value of equity ($p<.01$), and size ($p<.05$). The G-score, intangible assets, and number of employees variables are negatively associated with tax avoidance. If the G-score of a company increases by one, the company, on average, pays 0.04 percentage points more taxes ($\beta_{\text{G-score}}=0.0004$). On average, if a company's intangible assets increase by 1 percentage point in relation to total assets, the firm will pay 0.14 percentage points more in taxes ($\beta_{\text{intangibles}}=0.0014$). As the number of employees is logarithmic, the interpretation is more complicated. However, more employees lead to less tax avoidance on average. The market-to-book value of equity and size variables are associated with higher levels of tax avoidance. If the difference between the market value of a company and its' book

value increases, the company will pay less tax. Furthermore, an increase in total assets of a company leads to more tax avoidance.

Table 7. Regression results from main regression model

CETR	Coef.	Std. Err.	p-value
ES-score	0.0012	0.0002	0.000
C2M	-0.0122	0.0084	0.147
ROA	0.0014	0.0457	0.975
G-score	0.0004	0.0002	0.020
PPE	-0.0291	0.0200	0.147
Intangibles	0.1332	0.0336	0.000
Cash	-0.0372	0.0457	0.416
Employees	0.0149	0.0046	0.001
MTBVE	-0.0009	0.0003	0.007
Leverage	0.0319	0.0247	0.198
Size	-0.0121	0.0048	0.013
Constant	0.3738	0.0912	0.000
Number of obs	2 350		
Adj. R-squared	0.1032		

4.3.2 Second hypothesis

The second fixed effects regression results with the moderating variable, including fully robust standard errors, are presented in table 8 below. The explanatory power, adjusted R-squared, for the second regression model is higher than the main regression model at 0.1043. Thus, by including the moderating C2M_ES-score variable, more of the dependent variable can be explained. It is depicted in table 8 that the moderating variable C2M_ES-score is significant on a 1% level with a positive coefficient ($\beta_{C2M_ES-score}=0.0015$). This indicates that C2M firms have a stronger negative relationship between ES-score and tax avoidance. The sum of adding the product of C2M_ES-score and its coefficient ($\beta_{C2M_ES-score}=0.0015$) with the product of C2M and its coefficient ($\beta_{C2M}=-0.0936$) is negative for ES-scores below 62. For C2M firms with ES-scores above 62, the sum of the products is positive. Thus, C2M firms with an ES-score below 62 engage in more tax avoidance than B2B firms, whilst C2M firms with an ES-score above 62 engage less in tax avoidance than B2B firms. Finally, the coefficient of the ES-score variable has changed, as some of its explanatory power is shifted to the C2M_ES-score

variable. Thus, the ES-score variable becomes more weighted towards B2B firms, with a weaker association between the ES-score and CETR.

Table 8. Regression results from the second regression model

CETR	Coef.	Std. Err.	p-value
ES-score	0.0061	0.0003	0.023
C2M_ES-score	0.0015	0.0003	0.000
C2M	-0.0936	0.0182	0.000
ROA	0.0164	0.0456	0.719
G-score	0.0004	0.0002	0.027
PPE	-0.0335	0.0200	0.094
Intangibles	0.1317	0.0333	0.000
Cash	-0.0344	0.0460	0.454
Employees	0.0145	0.0046	0.002
MTBVE	-0.0007	0.0003	0.026
Leverage	0.0376	0.0250	0.126
Size	-0.0097	0.0049	0.048
Constant	0.3445	0.0918	0.000
Number of obs	2 350		
Adj. R-squared	0.1043		

4.4 Robustness tests

4.4.1 Robustness test – main hypothesis

The results of our main robustness test using fixed effects regression models, including fully robust standard errors, with GETR and LCETR as dependent variables, are presented in table 9 and 10 below. The explanatory power of the GETR model and the LCETR model are higher, with an adjusted R-squared of 0.1048 and 0.1336, respectively. The GETR model and LCETR model exhibit results for the ES-score variable on a 1% significance level, although showing weaker positive coefficients than the CETR model ($\beta_{\text{GETR}}=0.0007$, $\beta_{\text{LCETR}}=0.0007$). These results strengthen the indication from the main test that firms with high ES-scores avoid taxes less than firms with low ES-scores. Apart from the market-to-book value of equity, the coefficient signs for the significant ($p<.1$) control variables do not change between the three tests.

Table 9. Regression models comparison between CETR and GETR as dependent variable

Dependent variables	-----Main test-----			-----Main robustness test-----		
	CETR			GETR		
	Coefficients	Std. Err.	p-value	Coefficients	Std. Err.	p-value
ES-score	0.0012	0.0002	0.000	0.0007	0.0001	0.000
C2M	-0.0122	0.0084	0.147	-0.0025	0.0052	0.633
ROA	0.0014	0.0457	0.975	-0.0339	0.0265	0.202
Gscore	0.0004	0.0002	0.020	0.0003	0.0001	0.004
PPE	-0.0291	0.0200	0.147	0.0040	0.0111	0.719
Intangibles	0.1332	0.0336	0.000	0.0368	0.0205	0.072
Cash	-0.0372	0.0457	0.416	0.0155	0.0262	0.554
Employees	0.0149	0.0046	0.001	0.0041	0.0028	0.144
MTBVE	-0.0009	0.0003	0.007	-0.0003	0.0002	0.103
Leverage	0.0319	0.0247	0.198	0.0396	0.0160	0.013
Size	-0.0121	0.0048	0.013	-0.0066	0.0030	0.027
Constant	0.3738	0.0912	0.000	0.3810	0.0574	0.000
Number of obs			2 350			2 350
Adj. R-squared			0.1032			0.1048

Table 10. Regression models comparison between CETR and LCETR as dependent variable

Dependent variables	-----Main test-----			-----Main robustness test-----		
	CETR			LCETR		
	Coefficients	Std. Err.	p-value	Coefficients	Std. Err.	p-value
ES-score	0.0012	0.0002	0.000	0.0007	0.0001	0.000
C2M	-0.0122	0.0084	0.147	-0.0068	0.0061	0.268
ROA	0.0014	0.0457	0.975	-0.0809	0.0305	0.008
Gscore	0.0004	0.0002	0.020	0.0001	0.0001	0.345
PPE	-0.0291	0.0200	0.147	-0.0250	0.0141	0.076
Intangibles	0.1332	0.0336	0.000	0.0975	0.0227	0.000
Cash	-0.0372	0.0457	0.416	-0.0246	0.0305	0.420
Employees	0.0149	0.0046	0.001	0.0188	0.0033	0.000
MTBVE	-0.0009	0.0003	0.007	-0.0006	0.0002	0.004
Leverage	0.0319	0.0247	0.198	0.0313	0.0183	0.087
Size	-0.0121	0.0048	0.013	-0.0154	0.0036	0.000
Constant	0.3738	0.0912	0.000	0.4763	0.0711	0.000
Number of obs			2 350			2 350
Adj. R-squared			0.1032			0.1336

4.4.2 Robustness test – second hypothesis

The results of the second robustness test using fixed effects regression models, including fully robust standard errors, with GETR and LCETR as dependent variables and adding the moderating variable, are presented in table 11 and 12 below. The GETR and LCETR models have more explanatory power, adjusted R-squared, than the second regression model, 0.1087 and 0.1387, respectively. Furthermore, the GETR and LCETR models show weaker negative

relationships between ES-score and tax avoidance on a 1% significance level. In addition, the GETR and LCETR tests exhibit weaker coefficients for the moderating variable, C2M_ES-score, on a significance level of 1% and 5%, respectively. This strengthens the results from the second regression model that C2M firms have a stronger negative relationship between CSR performance and tax avoidance. Using the GETR measure, the results indicate that C2M firms with an ES-score below 54 will engage in more tax avoidance than B2B firms. The opposite is true when C2M firms surpass ES-scores of 54. For the LCETR measure, this limit lies at 67.

Table 11. Regression models comparison between CETR and GETR as dependent variable, with moderating variable

Dependent variables	-----Main test-----			-----Main robustness test-----		
	Coefficients	CETR Std. Err.	p-value	Coefficients	GETR Std. Err.	p-value
ES-score	0.0006	0.0003	0.023	0.0005	0.0002	0.005
C2M_ES-score	0.0015	0.0003	0.000	0.0006	0.0005	0.005
C2M	-0.0936	0.0182	0.000	-0.0321	-0.0321	0.003
ROA	0.0164	0.0456	0.719	-0.0284	-0.0284	0.286
Gscore	0.0004	0.0002	0.027	0.0003	0.0003	0.005
PPE	-0.0335	0.0200	0.094	0.0024	0.0024	0.829
Intangibles	0.1317	0.0333	0.000	0.0362	0.0363	0.074
Cash	-0.0344	0.0460	0.454	0.0165	0.0165	0.530
Employees	0.0145	0.0046	0.002	0.0040	0.0040	0.162
MTBVE	-0.0007	0.0003	0.026	-0.0003	-0.0003	0.183
Leverage	0.0376	0.0246	0.126	0.0417	0.0417	0.009
Size	-0.0010	0.0049	0.048	-0.0058	-0.0057	0.058
Constant	0.3445	0.0918	0.000	0.3704	0.0578	0.000
Number of obs			2 350			2 350
Adj. R-squared			0.1043			0.1087

Table 12. Regression models comparison between CETR and LCETR as dependent variable, with moderating variable

Dependent variables	-----Main test-----			-----Main robustness test-----		
	Coefficients	CETR Std. Err.	p-value	Coefficients	LCETR Std. Err.	p-value
ES-score	0.0006	0.0003	0.023	0.0005	0.0002	0.003
C2M_ES-score	0.0015	0.0003	0.000	0.0005	0.0002	0.024
C2M	-0.0936	0.0182	0.000	-0.0335	0.0132	0.011
ROA	0.0164	0.0456	0.719	-0.0760	0.0305	0.013
Gscore	0.0004	0.0002	0.027	0.0001	0.0001	0.374
PPE	-0.0335	0.0200	0.094	-0.0265	0.0141	0.061
Intangibles	0.1317	0.0333	0.000	0.0970	0.0227	0.000
Cash	-0.0344	0.0460	0.454	-0.0237	0.0305	0.437
Employees	0.0145	0.0046	0.002	0.0187	0.0033	0.000
MTBVE	-0.0007	0.0003	0.026	-0.0005	0.0002	0.008
Leverage	0.0376	0.0246	0.126	0.0332	0.0183	0.069
Size	-0.0010	0.0049	0.048	-0.0146	0.0037	0.000
Constant	0.3445	0.0918	0.000	0.4667	0.0717	0.000
Number of obs			2 350			2 350
Adj. R-squared			0.1043			0.1387

5 Discussion

5.1 Research method

5.1.1 Data selection

We have gathered our data from the Eikon Database from indices covering the six largest stock exchanges in the Nordics and UK. As we do this, we are aware of the bias towards large companies in our study, which we can also see in our mean number of employees and mean size. As explained in section 3.1, we remove observations for several reasons. We further decrease the sample by winsorizing the continuous variables at the 1st and 99th percentile to mitigate the effect of potential outliers. All removals are in line with previous research. Although we expect this to improve our dataset, it reduced our sample considerably. Furthermore, a decrease of roughly 80% of observations is a lot, yet, not unusual (van der Heuvel, 2019). The reduction of our sample increases the risk of errors. However, given that 2 350 observations remain in our sample, the risk is considered limited.

5.1.2 Measuring tax avoidance

As the research covering the relationship between CSR performance and tax avoidance is relatively young, it is yet to reach a unified definition of tax avoidance. Hanlon and Heitzman

(2010) summarized the 12 most used measures for tax avoidance in research. As different measures involve varying aspects of tax avoidance, we incorporated three tax avoidance measures to ensure that the results of our CETR regression models are robust. We focus on non-conforming tax avoidance by measuring effective tax rates. Non-conforming tax avoidance is the most relevant measure for our study, as public companies have incentives to maximize their book income.

5.2 Analysis of results

5.2.1 Hypotheses

Our main independent variable, ES-score, has a coefficient of 0.0012, on a 1% significance level, leading us to reject the main null hypothesis that there is no relationship between CSR performance and tax avoidance. The results from our main regression model support our main hypothesis that there is a negative relationship between CSR performance and tax avoidance. This shows that higher CSR performance is related to higher tax payments, indicating the firms view CSR expenses and tax payments as complements. Our control variables, discussed in more depth in section 5.2.2, somewhat differ from previous research. The results of the main regression model are in line with Hoi et al. (2013), who found a positive association between irresponsible CSR firms and more aggressive tax avoidance, and Lanis and Richardson (2012), who conclude that more socially responsible firms are less likely to engage in tax avoidance.

The second regression model shows a coefficient for our moderating variable of 0.0015 on a 1% significance level. Therefore, we can reject the second null hypothesis that companies' customer models do not affect the relationship between CSR performance and tax avoidance. Moreover, the results support our second hypothesis that the negative relationship between CSR performance and tax avoidance is strengthened for firms with C2M customer models. This indicates that C2M firms, to a higher extent, view CSR expenses and tax payments as complements compared to B2B firms. The results of our second regression model are more difficult to compare to prior research, as we have not found any previous research studying the effect of companies' customer models on the relationship between CSR performance and tax avoidance. However, its results are in line with prior research that has studied companies' customer models' effect on CSR performance and tax avoidance independently. Results from previous literature indicate that C2M firms have stronger incentives to engage in CSR activities

and refrain from tax avoidance, as they are characterized by higher customer awareness (Haddock-Fraser and Fraser, 2008), and have greater exposure to reputational damage among consumers (Austin and Wilson, 2017). We suggest that our results showing that C2M firms are more likely to view CSR expenses and tax payments as complements, compared to B2B firms, is down to consumer perceptions of CSR and tax avoidance.

The main robustness test using GETR and LCETR show weaker positive ES-score coefficients of 0.0007 and 0.0007, on a 1% significance level, compared to the main regression model. The difference in results between the main test and the GETR test is down to the measures capturing different tax avoidance strategies. The CETR captures tax deferrals, whereas the GETR captures tax accounting accruals. The difference in results between the main test and the LCETR test likely stems from the variance between years included in the CETR, which the LCETR avoids. Although the results of the robustness tests show weaker coefficients for the ES-score variable, they strengthen the rejection of the main null hypothesis that there is no relationship between CSR performance and tax avoidance. Moreover, the results further support our main hypothesis that there is a negative relationship between CSR and tax avoidance. Thus, the robustness tests strengthen our results that firms view CSR expenses and tax payments as complements.

The second robustness test using GETR and LCETR shows weaker positive coefficients for the moderating variable of 0.0006 and 0.0005, on a 1% and 5% significance level, compared to the second regression model. The results strengthen the rejection of our second null hypothesis that companies' customer models do not affect the relationship between CSR performance and tax avoidance. Furthermore, the results strengthen our second hypothesis that the negative relationship between CSR and tax avoidance is strengthened for firms with C2M customer models. Thus, the robustness tests strengthen our results that C2M firms are more likely to regard CSR expenses and tax payments as complements than B2B firms.

5.2.2 Control variables

The **G-score** variable is shown to be negatively related to tax avoidance in the CETR and GETR models, on a significance level of 1% and 5%. This indicates that using more governance mechanisms lowers a firm's tax avoidance. However, as governance is a broad term and

research has mainly focused on specific governance tools relative to tax avoidance with mixed results (Chi et al., 2017; McClure et al., 2018), we did not predict a sign for the coefficient.

The *intangible assets* variable exhibits evidence of being negatively associated with tax avoidance on a significance level of 1% for the CETR and LCETR tests and 10% for the GETR test. This opposes prior research and our predicted coefficient sign. Earlier research found that intangible assets are difficult to measure accurately (Gravelle, 2015), and therefore are often transferred between tax jurisdictions to lower tax obligations (Shackelford et al., 2007).

The results from the main regression model and the two robustness tests exhibit negative relation between the number of *employees* and tax avoidance, on a significance level of 1%. This is in line with prior literature and our predicted coefficient sign. Prior research has shown that companies with more employees have more difficulty maintaining good employee relations (Tansel and Gazioglu, 2013). As companies with more employees have more relations to damage, their incentives to refrain from tax avoidance are stronger (Lee et al., 2020).

The *market-to-book value of equity* variable exhibits a positive coefficient with a significance level of 1% for the CETR-model. The robustness tests strengthen the results. Prior research has received mixed results regarding MTBVE and tax avoidance (Hoi et al., 2013; Watson, 2015; Davis et al., 2016). Thus, we did not predict a coefficient sign.

The control variable *Size* shows a positive relationship with tax avoidance in the main regression model, GETR regression, and the LCETR regression on a significance level of 5%, 5%, and 1%. Mixed results have been found for the relationship between firm size and tax avoidance (Zimmerman, 1983; Porcano, 1986; Mills et al., 1998). Siegfried (1972) claims that larger firms use their resources to influence the political process to lower their taxes and develop expertise in tax planning. However, the political cost hypothesis claims the opposite, that bigger firms are under more scrutiny and, therefore, pay more taxes. Consequently, we did not predict a coefficient sign.

6 Conclusion

The conducted study aims to provide evidence on the relationship between CSR expenses and tax payments, looking to distinguish if companies view the two phenomena as complements or substitutes. To answer our research question, we use fixed effects regression models, including fully robust standard errors. Evidence was found to support our main hypothesis, suggesting that firms with higher CSR performance will engage less in tax avoidance. Moreover, evidence was also found to support our second hypothesis, indicating that the relationship is stronger for C2M firms than B2B firms. The results from our main and second regression models were significant on a 1% level. The found relationship between CSR performance and tax avoidance indicates that firms view CSR expenses and tax payments as complements. This perception is strengthened for firms with C2M customer models. The results from the main and second regression models held for robustness tests, using other measures as proxies for tax avoidance.

When comparing the results of our main regression model to previous literature, we see that our results are in line with Hoi et al. (2013), and Lanis and Richardson (2012), but contradict the findings of Davis et al. (2016). As the second part of our research question has not been studied before, we have no studies to fully compare our results to. However, due to higher customer awareness, C2M firms have stronger incentives than B2B firms to engage in CSR (Haddock-Fraser and Fraser, 2008). Moreover, as reputational costs are greater for firms with high consumer exposure, C2M firms have stronger incentives to refrain from tax avoidance (Austin and Wilson, 2017). Indicating that C2M firms will engage more in CSR and less in tax avoidance than B2B firms when they are similarly attentive to societal expectations.

The subject of this study is of interest to investors since the study helps them to better understand how firms react to societal expectations. Moreover, investors can better understand how reputational costs differ between C2M and B2B firms, which can be weighted when choosing to invest in the different market segments. It is also of interest for firms' internal decision-making processes regarding CSR and tax avoidance strategies, as it enables companies to benchmark against firms with similar and different customer models. From a broader perspective, the results are of interest to anyone who wishes to understand the relationship between CSR and tax avoidance and how a firms' customer models affect this relationship.

The seemingly contradicting nature of engaging in CSR activity whilst simultaneously taking corporate decisions that minimize tax payments has sparked an interest in the research sphere. Firms use different approaches and policies, and contrasting schools claim that CSR expenses and tax payments act as either substitutes or complements. We provide evidence of corporate perceptions of CSR expenses and tax payments by conducting the study in a new region. In addition, we provide further insight and nuance by comparing C2M and B2B companies, which to the best of our knowledge, no study has previously set out to do.

7 Further research

In the process of developing and performing our study, several interesting ideas for further research have unfolded. These ideas are presented below.

In this thesis, we investigate the relationship of CSR performance and tax avoidance to find evidence if firms regard CSR expenses and tax payments as substitutes or complements. While our measure of tax avoidance is designed to measure tax payments, we acknowledge that the scope of our measure has limitations. One such shortcoming is personal taxes, which extends beyond corporate income tax as owners might benefit from not paying salaries but instead increase dividend payouts. Including personal taxes would be especially interesting in Sweden, as regulations allow owners in certain firms to pay out a specific level of profits in dividends at the preferential tax rate.

As acknowledged, our study is biased towards public companies in our region. It would be interesting to investigate how corporate views on CSR expenses and tax payments differ from public companies. As private companies do not have capital market pressure to maximize profit, it would be beneficial to use conforming tax avoidance measures. This could lead to vastly different results.

Lastly, little research has been conducted to provide nuance on variables affecting the corporate perception of CSR expenses and tax payments. Therefore, it would be interesting to investigate how other moderating variables affect this perception. In our study, we control for various fixed effects, including industries. However, as industries face different tax rates, regulations, and societal expectations, it would be interesting to see how companies in various industries view CSR expenses and tax payments.

References

- Ahmed A., Nasir M., Shahid M., Dr. Fareeha. "Comparison of CSR Implementation in European Countries I.E. UK, Norway & Sweden." (2013): Vol. 2 Issue 11.
- Allingham, Michael G., and Agnar Sandmo. "Income tax evasion: A theoretical analysis." *Journal of public economics* 1.3-4 (1972): 323-338.
- Armstrong, Christopher S., Jennifer L. Blouin, and David F. Larcker. "The incentives for tax planning." *Journal of accounting and economics* 53.1-2 (2012): 391-411.
- Austin, Chelsea Rae, and Ryan J. Wilson. "An examination of reputational costs and tax avoidance: Evidence from firms with valuable consumer brands." *The Journal of the American Taxation Association* 39.1 (2017): 67-93.
- Badertscher, Brad A., et al. "Conforming tax avoidance and capital market pressure." *The Accounting Review* 94.6 (2019): 1-30.
- Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan. "How much should we trust differences-in-differences estimates?." *The Quarterly journal of economics* 119.1 (2004): 249-275.
- Campbell, John L. "Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility." *Academy of Management Review* 32.3 (2007): 946-967.
- Cao, Yue, et al. "Customer Concentration, Tax Collection Intensity, and Corporate Tax Avoidance." *Emerging Markets Finance and Trade* 56.11 (2020): 2563-2593.
- Carroll, Archie B., and Kareem M. Shabana. "The business case for corporate social responsibility: A review of concepts, research and practice." *International journal of management reviews* 12.1 (2010): 85-105.
- Chi, Sabrina, Shawn X. Huang, and Juan Manuel Sanchez. "CEO inside debt incentives and corporate tax sheltering." *Journal of Accounting Research* 55.4 (2017): 837-876.
- Davis, Angela K., et al. "Do socially responsible firms pay more taxes?." *The accounting review* 91.1 (2016): 47-68.
- Desai, Mihir A., Alexander Dyck, and Luigi Zingales. "Theft and taxes." *Journal of financial economics* 84.3 (2007): 591-623.
- Desai, Mihir A., and Dhammika Dharmapala. "Corporate tax avoidance and firm value." *The review of Economics and Statistics* 91.3 (2009): 537-546.
- DeZoort, F. Todd, Troy J. Pollard, and Edward J. Schnee. "A study of perceived ethicality of

- low corporate effective tax rates." *Accounting Horizons* 32.1 (2018): 87-104.
- Doh J., Howton S., Howton S. and Siegel D. (2009) Does the Market Respond to an Endorsement of Social Responsibility? The Role of Institutions, Information and Legitimacy *Journal of Management* 20(1), 1-25
- Dong, T., Tylaite, M., & Wilson, R. (2019). Auditors and Tax Avoidance in Micro Firms. Working paper.
- Dyreng, Scott D., Jeffrey L. Hoopes, and Jaron H. Wilde. "Public pressure and corporate tax behavior." *Journal of Accounting Research* 54.1 (2016): 147-186.
- Dyreng, Scott D., Michelle Hanlon, and Edward L. Maydew. "Long-run corporate tax avoidance." *The accounting review* 83.1 (2008): 61-82.
- Friedman, Milton. "The social responsibility of business is to increase its profits." *The New York* (1970).
- Gaio, Cristina, and Rita Henriques. "Are large firms more profitable than small and medium firms in the European Union?." *The European Journal of Management Studies* 23.1 (2018): 25-48.
- Golob, Urša, Marko Lah, and Zlatko Jančič. "Value orientations and consumer expectations of corporate social responsibility." *Journal of Marketing Communications* 14.2 (2008): 83-96.
- Graham, John R., et al. "Incentives for tax planning and avoidance: Evidence from the field." *The Accounting Review* 89.3 (2014): 991-1023.
- Gravelle, J.G. (2015), "Tax havens: international tax avoidance and evasion", Paper No. R40623, Congressional Research Service, Washington, DC.
- Gupta, Sanjay, and Kaye Newberry. "Determinants of the variability in corporate effective tax rates: Evidence from longitudinal data." *Journal of accounting and public policy* 16.1 (1997): 1-34.
- Haddock-Fraser, Janet, and Iain Fraser. "Assessing corporate environmental reporting motivations: differences between 'close-to-market' and 'business-to-business' companies." *Corporate Social Responsibility and Environmental Management* 15.3 (2008): 140-155.
- Hanlon, Michelle, and Joel Slemrod. "What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement." *Journal of Public economics* 93.1-2 (2009): 126-141.
- Hanlon, Michelle, and Joel Slemrod. "What does tax aggressiveness signal." *Evidence from Stock Price Reactions to News About Tax Aggressiveness* (2007).

- Hanlon, Michelle, and Shane Heitzman. "A review of tax research." *Journal of accounting and Economics* 50.2-3 (2010): 127-178.
- Harrington, Christine, Walter Smith, and Donald Trippeer. "Deferred tax assets and liabilities: tax benefits, obligations and corporate debt policy." *Journal of Finance and Accountancy* 11 (2012): 1.
- Hausman, Jerry A., and William E. Taylor. "Panel data and unobservable individual effects." *Econometrica: Journal of the Econometric Society* (1981): 1377-1398.
- Hickman, L. Emily. "Information asymmetry in CSR reporting: publicly-traded versus privately-held firms." *Sustainability Accounting, Management and Policy Journal* (2020).
- Hoi, Chun Keung, Qiang Wu, and Hao Zhang. "Is corporate social responsibility (CSR) associated with tax avoidance? Evidence from irresponsible CSR activities." *The Accounting Review* 88.6 (2013): 2025-2059.
- Huang, Henry He, et al. "Customer concentration and corporate tax avoidance." *Journal of Banking & Finance* 72 (2016): 184-200.
- Huseynov, Fariz, and Bonnie K. Klamm. "Tax avoidance, tax management and corporate social responsibility." *Journal of Corporate Finance* 18.4 (2012): 804-827.
- Katz, Sharon P., Urooj Khan, and Andrew Schmidt. "Tax avoidance and future profitability." *Columbia Business School Research Paper* 13-10 (2013).
- Kiessling, Timothy, Lars Isaksson, and Burze Yasar. "Market orientation and CSR: Performance implications." *Journal of Business Ethics* 137.2 (2016): 269-284.
- Kim, Yongtae, Myung Seok Park, and Benson Wier. "Is earnings quality associated with corporate social responsibility?." *The accounting review* 87.3 (2012): 761-796.
- Kovermann, Jost, and Patrick Velte. "The impact of corporate governance on corporate tax avoidance—A literature review." *Journal of International Accounting, Auditing and Taxation* 36 (2019): 100270.
- Lanis, Roman, and Grant Richardson. "Corporate social responsibility and tax aggressiveness: An empirical analysis." *Journal of Accounting and Public Policy* 31.1 (2012): 86-108.
- Lee, Yoojin, et al. "The Effects of Tax Avoidance News on Employee Perceptions of Managers and Firms: Evidence from Glassdoor. com Ratings." *The Accounting Review, Forthcoming*(2020).
- Lessen, Gilbert, et al. "Tax avoidance and corporate social responsibility: you can't do both,

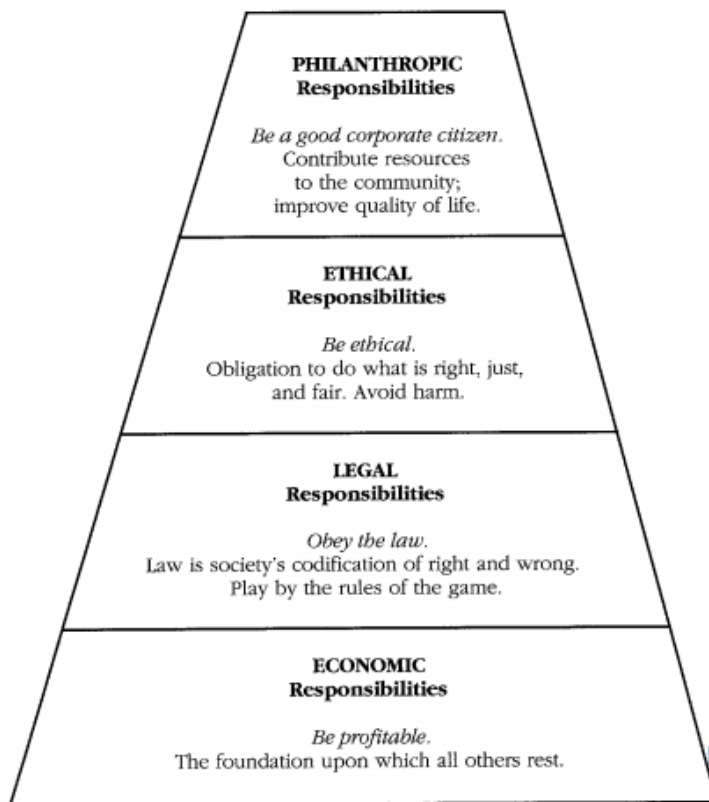
- or can you?." *Corporate Governance: The international journal of business in society* (2010).
- Lys, Thomas, James P. Naughton, and Clare Wang. "Signaling through corporate accountability reporting." *Journal of Accounting and Economics* 60.1 (2015): 56-72.
- McClure, Ross, et al. "The impact of dividend imputation on corporate tax avoidance: The case of shareholder value." *Journal of Corporate Finance* 48 (2018): 492-514.
- Mills, Lillian F., and Kaye J. Newberry. "The influence of tax and nontax costs on book-tax reporting differences: Public and private firms." *Journal of the American Taxation Association* 23.1 (2001): 1-19.
- Penrose, Roger. "The apparent shape of a relativistically moving sphere." *Mathematical Proceedings of the Cambridge Philosophical Society*. Vol. 55. No. 1. Cambridge University Press, 1959.
- Porcano, Thomas. "Corporate tax rates: Progressive, proportional, or regressive." *Journal of the american taxation Association* 7.2 (1986): 17-31.
- Refinitiv (2020). Refinitiv ESG Company scores. Retrieved from:
<https://www.refinitiv.com/en/sustainable-finance/esg-scores>
- Rego, Sonja Olhott, and Ryan Wilson. "Equity risk incentives and corporate tax aggressiveness." *Journal of Accounting Research* 50.3 (2012): 775-810.
- Rego, Sonja Olhott. "Tax-avoidance activities of US multinational corporations." *Contemporary Accounting Research* 20.4 (2003): 805-833.
- Richardson, Grant, and Roman Lanis. "Determinants of the variability in corporate effective tax rates and tax reform: Evidence from Australia." *Journal of accounting and public policy* 26.6 (2007): 689-704.
- Robinson, John R., Stephanie A. Sikes, and Connie D. Weaver. "Performance measurement of corporate tax departments." *The Accounting Review* 85.3 (2010): 1035-1064.
- Servaes, Henri, and Ane Tamayo. "The impact of corporate social responsibility on firm value: The role of customer awareness." *Management science* 59.5 (2013): 1045-1061.
- Schwab, K. "The Global Competitiveness Report". World Economic Forum. (2019).
- Shackelford, Douglas A., Joel Slemrod, and James M. Sallee. *A unifying model of how the tax system and generally accepted accounting principles affect corporate behavior*. No. w12873. National Bureau of Economic Research, 2007.
- Siegfried, John Jacob. *The relationship between economic structure and the effect of political influence: Empirical evidence from the federal corporation income tax*

- program*. The University of Wisconsin-Madison, 1972.
- Sikka, Prem. "Smoke and mirrors: Corporate social responsibility and tax avoidance." *Accounting forum*. Vol. 34. No. 3-4. No longer published by Elsevier, 2010.
- Siregar, Rifka, and Dini Widyawati. "Pengaruh karakteristik perusahaan terhadap penghindaran pajak pada perusahaan manufaktur di BEI." *Jurnal Ilmu dan Riset Akuntansi (JIRA)* 5.2 (2016).
- Steurer, Reinhard, Andre Martinuzzi, and Sharon Margula. "Public policies on CSR in Europe: Themes, instruments, and regional differences." *Corporate Social Responsibility and Environmental Management* 19.4 (2012): 206-227.
- Stickney, Clyde P., and Victor E. McGee. "Effective corporate tax rates the effect of size, capital intensity, leverage, and other factors." *Journal of accounting and public policy* 1.2 (1982): 125-152.
- Suchman, Mark C. "Managing legitimacy: Strategic and institutional approaches." *Academy of management review* 20.3 (1995): 571-610.
- Tang, Zhi, Clyde Eiríkur Hull, and Sandra Rothenberg. "How corporate social responsibility engagement strategy moderates the CSR–financial performance relationship." *Journal of Management Studies* 49.7 (2012): 1274-1303.
- Tansel, Aysit, and Şaziye Gazioğlu. "Management-employee relations, firm size and job satisfaction." *International journal of manpower* (2014).
- Thomson Reuters, 2017. Thomson ESG scores. Retrieved from:
https://www.esade.edu/itemsweb/biblioteca/bbdd/inbbdd/archivos/Thomson_Reuters_ESG_Scores.pdf
- van den Huevel, B. Th. "Corporate Social Responsibility, Corporate Tax Avoidance and Earnings Quality-A European Examination." (2019)
- Watson, Luke. "Corporate social responsibility, tax avoidance, and earnings performance." *The Journal of the American Taxation Association* 37.2 (2015): 1-21.
- Wen, Wen, Yun Ke, and Xuejiao Liu. "Customer concentration and corporate social responsibility performance: Evidence from China." *Emerging Markets Review* 46 (2021): 100755.
- White, H. (1980). A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity. *Econometrica*, 48(4), 817-838.
- Wilson, Ryan J. "An examination of corporate tax shelter participants." *The Accounting Review* 84.3 (2009): 969-999.
- Zimmerman, Diane L. "Requiem for a Heavyweight: A Farewell to Warren and Brandeis's

Privacy Tort." *Cornell L. Rev.* 68 (1982): 291.

Appendix

Appendix 1. Carrol's pyramid



Appendix 2. Hausman test

Hausman test

	-----Coefficients-----			
	(b) fixed	(B) random	(b-B) Difference	
ES-score	0.0013	0.0012	0.0001	
ROA	0.1008	0.0629	0.0379	
G-score	0.0005	0.0005	0.0000	
PPE	-0.0083	-0.0582	0.0499	
Intangibles	0.0403	0.1219	-0.0816	
Cash	-0.0933	-0.0835	-0.0098	
Employees	0.0186	0.0079	0.0107	
MTBVE	0.0009	-0.0001	0.0010	
Leverage	0.0443	0.0469	-0.0025	
Size	0.0107	-0.0037	0.0145	
Chi2	15.62			
Prob>chi2	0.0412			

Appendix 3. Breusch-Pagan test

Breusch-Pagan test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of CETR

chi2(1) = 117.34

Prob > chi2 = 0.0000

Appendix 4. Variance inflation factor

Variance inflation factor

	VIF	1/VIF
ES-score	2.501	.4
C2M_ES-score	4.836	.207
C2M	4.531	.221
ROA	1.427	.701
G-score	1.396	.716
PPE	2.100	.476
Intangibles	1.458	.686
Cash	1.682	.595
Employees	3.878	.258
MTBVE	1.366	.732
Leverage	1.402	.713
Size	4.239	.236
Mean VIF	2.568	.