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# The Influence of Social Responsibility Practices on Tax Planning: An Empirical Study for Companies Listed on Euronext Lisbon

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**Abstract:** This paper analyzes the influence of social responsibility practices on the development of tax planning activities in companies listed on Euronext Lisbon. Although scientific research into social responsibility and tax planning is not new, scientific studies into the relationship between these two themes is a developing area of research that still raises many questions. This study was carried out on a sample of 30 companies listed on Euronext Lisbon, using data for the 2018 and 2019 periods. The hypotheses were formulated based on a literature review on this subject. A multiple linear regression model was developed to validate the hypotheses. The results show that the social, corporate governance, environmental, or economic components of corporate social responsibility do not influence tax planning. However, the results show that company size negatively impacts tax planning, i.e., larger companies have lower effective tax rates. In the sample studied, larger companies implemented more tax planning strategies. In this way, this study can complement the understanding of the relationship between social responsibility practices and tax planning activities in Portugal and internationally.

**Keywords:** tax planning; tax management; corporate social responsibility; Portugal



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## 1. Introduction

Tax management is an activity that accompanies most companies. Every day, companies face countless challenges and a wide range of decision-making options, including taxes. Taxes are a burden that reduces companies' available resources, so it is important to reduce the amount of tax paid as much as possible. According to Lopes (2018), companies have legal options that give them a chance to opt for the least costly and most suitable route for their organization, with the aim of reducing the amount of tax payable and, in this context, applying tax planning strategies. This reduction could increase profitability for shareholders.

Social responsibility has accompanied companies over the last few decades. Through globalization, political, economic, cultural, and social issues are increasingly intertwined. Thus, corporate social responsibility (CSR) arises from the need for a responsible entrepreneurial spirit, in line with the concept of sustainable development (Baylis and Smith 2005). It is crucial for companies to be socially responsible and to create a positive impact for employees, the community in general, and other stakeholders. The Commission's Green Paper (European Commission 2001), in its internal and external dimensions, presents various measures that companies should adopt with a view to being socially responsible. Some of these measures are a better balance between work, family life, and leisure time, the promotion of gender equality, the adoption of health and safety measures at work, the reduction in environmental impact, and having socially responsible practices towards stakeholders, among others. Laguir et al. (2015) and Valiente et al. (2012) state that CSR is a key factor influencing a company's performance.

The relationship between tax planning and social responsibility is most often realized because taxes are an important funding source for public goods. Taxes are indispensable for financing state social programs such as health, security, and education (Lanis and Richardson 2012; Branco 2014, 2021). Consequently, companies need to manage the amount of tax they pay without compromising the community.

The literature has highlighted the importance of this issue, both for the scientific community and society in general. Hoi et al. (2013) state that corporate culture influences CSR and that companies that are not socially responsible are more likely to have aggressive tax planning practices. CSR may influence tax planning in terms of how a company organizes itself and cares about the community's well-being (Lanis and Richardson 2012). Kovermann and Velte (2019) reflect on the impact of corporate governance on corporate tax avoidance.

Khan et al. (2014) state that many companies claim to be socially responsible when they publish sustainability reports. However, these authors also point out that some companies that consider themselves socially responsible use an aggressive tax planning policy and resort to tax havens. Therefore, it is expected that socially responsible companies give back to the community the fair share of their activities in the form of tax payments and do not engage in aggressive tax planning (De Melo et al. 2020).

This research aims to study the influence of the different components of social responsibility on a company's tax planning activities. The goal is to determine whether a greater intensity of social responsibility's social, corporate governance, environmental, and economic components is associated with a greater or lesser level of aggressive tax planning.

This study was conducted on a sample of 30 companies listed on Euronext Lisbon for the 2018 and 2019 periods. The research hypotheses were studied using a linear regression model.

This topic has not been addressed in the literature in Portugal, so it is timely and interesting to carry out this study. This research contributes to the existing literature in this area of knowledge by providing an insight into this issue for Portuguese companies. Also, we use different metrics to compute a tax planning variable developing different models for analysis. We separately examine the effect of four categories of CSR on tax planning. In addition, the work has the merit of being part of a multidisciplinary line of research, demonstrating the interconnection between the areas of accounting and taxation knowledge and contributing to a better understanding of company decisions.

This study is divided into five sections. It begins with the introduction. Section 2 presents the literature review, referring to the main measures of tax planning, the dimensions of CSR, the results of various empirical studies on the influence of social responsibility on tax planning, and the research hypotheses. Section 3 includes the research methodology, the sample, the variables, and the multiple linear regression formulation. Section 4 presents the results obtained and their discussion. The last section presents the final conclusions and advice for future research lines.

## 2. Literature Review

### 2.1. Tax Planning

Tax planning is inevitably part of companies' day-to-day operations. Taxes represent a significant burden for companies, leading to reduced available resources.

Internationally, studies on tax planning tend not to separate the concepts of tax planning, tax evasion, and tax fraud. Lanis and Richardson (2012) and Laguir et al. (2015) use the term "tax aggressiveness" to define all tax planning activities, whether they are legal, illegal, or borderline.

Given the above, it is difficult to draw the line between the concepts of tax planning and tax evasion, which is why the term "tax aggressiveness" encompasses both concepts. Slemrod (2004) and Blouin (2014) point out that knowing when a given activity incurs aggressive tax planning is complicated. For example, faced with dubious laws, which can be interpreted differently, companies try to choose less fiscally damaging paths without incurring tax evasion (Santos 2009). According to Blouin (2014), when companies are faced with a law of dubious interpretation, they have no obligation to interpret the law in favor of the legislator.

Other authors take a different view of how companies minimize their taxes. For [Avi-Yonah \(2008\)](#), a company has the right to reduce taxes within the spirit of the law. Still, it is considered illegitimate for a company to engage in aggressive tax planning activities to minimize taxes deliberately. According to the [European Commission \(2015\)](#), by carrying out aggressive tax planning activities, companies exploit legal loopholes in tax systems and mismatches between national rules to avoid paying their fair share of taxes. Several authors state that aggressive tax planning can have a negative effect on the community because if companies engage in tax evasion practices, governments will find it challenging to guarantee public services such as education, health, or security ([Freedman 2003](#); [Slemrod 2004](#); [Landolf 2006](#); [Friese et al. 2008](#)). Thus, illegal and tax evasion activities correspond to aggressive tax planning and are considered socially irresponsible ([Lanis and Richardson 2012](#)). Over the last few decades, many scientific studies have been published on the topics of tax planning and CSR practices. However, the topics have been approached independently ([Desai and Dharmapala 2006](#); [Chen et al. 2010](#); [Hanlon and Heitzman 2010](#); [Lanis and Richardson 2012](#); [Landry et al. 2013](#); [Whait et al. 2018](#)), contrasting with the joint approach of these two research areas. The main empirical studies linking these two themes have been carried out in the last decade ([Lanis and Richardson 2012, 2013, 2015](#); [Hoi et al. 2013](#); [Laguir et al. 2015](#); [Jones et al. 2016](#); [Marta et al. 2019](#); [Sari and Prihandini 2019](#); [De Melo et al. 2020](#); [Abdelfattah and Aboud 2020](#)).

It should also be noted that the existing studies present contradictory results. [Hoi et al. \(2013\)](#) and [Laguir et al. \(2015\)](#) found a positive relationship between CSR and tax planning. On the other hand, [Lanis and Richardson \(2012\)](#) and [Jones et al. \(2016\)](#) found a negative relationship. On the other hand, [Marta et al. \(2019\)](#) found no relationship between these two variables. According to [Lanis and Richardson \(2012\)](#), a company with a better CSR performance should have a less aggressive level of tax planning. On the other hand, these authors state that companies that use tax havens are not socially responsible and, therefore, have a more aggressive level of tax planning. [Sikka \(2010\)](#) says that some companies use legitimacy theory when making CSR disclosures to gain legitimacy and influence the community. On the contrary, [Hoi et al. \(2013\)](#) state that companies use CSR disclosures publicly not to affect the community but to mitigate possible sanctions due to aggressive tax planning strategies.

Over the last few decades, various authors and researchers have studied or developed studies in which they apply measures to evaluate and quantify tax planning activities. One of the first studies on tax planning measures was carried out by [Shackelford and Shevlin \(2001\)](#). These measures include estimating the marginal tax rate, the specification of the trade-off model, and implicit taxes. Other authors and researchers have subsequently addressed these measures. [Hanlon and Heitzman \(2010\)](#) carried out a study in which they defined twelve tax planning measures. Most of these measures deal with the Effective Tax Rate (ETR) and the Book-Tax Difference (BTD).

According to [Hanlon and Heitzman \(2010\)](#), many existing studies on this subject use accounting data, as these data, unlike tax returns, are disclosed to the market. Several measures of tax planning are used in the literature, as each measure has limitations, i.e., using several measures makes the results more robust ([Hanlon and Heitzman 2010](#); [Lisowsky et al. 2013](#); [Hoi et al. 2013](#)).

The BTD is a tax planning measure widely used in the literature. BTD is calculated as the difference between book income and taxable income. One of the main limitations of this way of measuring tax planning is that taxable income is generally estimated since tax return data are not publicly available ([Jones et al. 2016](#); [Lisowsky 2010](#)). Another limitation, according to [Martinez \(2017\)](#), is that BTD can be justified by earnings management, which makes it challenging to know when we are dealing with tax planning mechanisms. [Hoi et al. \(2013\)](#) used BTD to measure aggressive tax planning.

The ETR is another of the tax planning measures used in the various scientific studies on the subject ([Lanis and Richardson 2012](#); [Hoi et al. 2013](#); [Laguir et al. 2015](#); [Jones et al. 2016](#); [Martinez 2017](#); [Marta et al. 2019](#); [Sari and Prihandini 2019](#); [De Melo et al. 2020](#)). Next,

we will analyze some of the main measures related to ETR, such as Current ETR, Cash ETR, Generally Accepted Accounting Principles (GAAP) ETR, and Long-Run Cash ETR.

The Current ETR is a ratio made up of current taxes in the numerator and Earnings Before Taxes (EBT) in the denominator. Therefore, as this ratio is composed only of current taxes, it does not include deferred taxes. Thus, only permanent differences influence this ratio, i.e., through items that only affect current tax. For [Hanlon and Heitzman \(2010\)](#), the main disadvantage of this ratio is the possibility of it being influenced by accounting results since the items that change the Current ETR are not temporary differences.

Cash ETR is a variable whose numerator is the amount of taxes paid and whose denominator is EBT for a given period. As far as we know, among the measures related to ETR, Cash ETR is the most widely used tax planning measure in the literature on the influence of social responsibility on tax planning. For [Hanlon and Heitzman \(2010\)](#), this is the most direct measure of the taxes actually paid. However, this is not one of the most consensual measures in the literature, as it has several limitations. [Hanlon and Heitzman \(2010\)](#) point out that volatility from year to year affects this measure more than Current ETR and GAAP ETR. Another limitation for these authors is the possible incompatibility between the numerator and denominator. The numerator could include operations from previous years (for example, an audit completed in the current year but which had begun in previous years), while the denominator only includes operations from the current year. [Blouin \(2014\)](#) states that accruals affect the denominator, not the numerator. This limitation led [Dyreng et al. \(2008\)](#) to calculate Cash ETR with adjustments. These authors remove some special items from the denominator, such as restructuring reserves, gains from debt extinguishment, and gains from discontinued operations.

The GAAP ETR variable is made up of income tax (current and deferred) in the numerator and EBT in the denominator for a given period. This ratio follows current accounting standards. For [Hanlon and Heitzman \(2010\)](#), the GAAP ETR includes deferred taxes, so deferral strategies, such as accelerated depreciation rates, will not influence it. When analyzing GAAP ETR, as with other measures related to ETR, the lower the ratio value, the greater the level of aggressive tax planning by a company ([Martinez 2017](#)).

The Long-Run Cash ETR variable includes in the numerator the sum of the taxes paid in a given number of years and in the denominator the sum of the EBT for the respective number of years present in the numerator. According to [Dyreng et al. \(2008\)](#), the ideal time horizon for this ratio is ten years. Thus, the Long-Run Cash ETR measures the long-term effective tax rate. Several authors and researchers use the Long-Run Cash ETR. The main advantage of this ratio is that accounting accruals do not influence it ([Dyreng et al. 2008](#); [Hanlon and Heitzman 2010](#); [Jones et al. 2016](#)). In addition, [Dyreng et al. \(2008\)](#) use the Long-Run Cash ETR, as this measure is less affected by annual variations in ETR. Although they obtained inconclusive results, [Jones et al. \(2016\)](#) state that the higher a company's CSR index, the higher the value of the Long-Run Cash ETR ratio. Thus, companies with high CSR ratios do not have aggressive long-term tax planning.

## 2.2. Corporate Social Responsibility (CSR)

Over the last few decades, various authors and researchers have contributed to the development of the concept of CSR, such as [Bowen \(1953\)](#), [McGuire \(1963\)](#), [Steiner \(1971\)](#), [Davis \(1973\)](#), [Fitch \(1976\)](#), [Backman \(1975\)](#), [Epstein \(1987\)](#), [Carroll \(1999\)](#), [Schwartz and Carroll \(2003\)](#), and [Carroll \(2016\)](#), among others. In addition to the contribution of authors and researchers, in the 21st century, international institutions and governments have contributed to this issue. Take the example of the [European Commission \(2001\)](#), which states in its Green Paper that "being socially responsible is not restricted to complying with all legal obligations—it implies going further by investing 'more' in human capital, the environment, and relations with other stakeholders".

[Carroll's \(1979\)](#) three-dimensional model is one of the main contributions to the literature on corporate social responsibility in the 1970s. For [Carroll \(1979\)](#), the definition of CSR has to include economic, legal, ethical, and discretionary responsibilities, which must

be fulfilled simultaneously. Economic responsibility is a company's main responsibility. Companies have to sell their goods or services in such a way that they make a profit. The other responsibilities only exist if the economic responsibility is successful; otherwise, the company cannot continue to operate. [Carroll \(1991\)](#) places economic responsibility at the base of his pyramid, as this is what underpins the other responsibilities.

Legal responsibility means that companies have to comply with laws and regulations in the course of their activities. Communities, therefore, expect businesses to make a profit and companies to respect the law.

Ethical responsibility is present in economic and legal responsibility, as these responsibilities incorporate ethical standards. However, some behaviors and activities are not found in legislation but are expected by the community. [Carroll \(1979\)](#) considers that ethical responsibilities are poorly defined and are the ones that companies find most difficult to deal with. [Carroll \(1991\)](#) emphasizes that ethical responsibilities incorporate standards, norms, or expectations that reflect concern for consumers, employees, shareholders, and the community. For [Carroll \(2016\)](#), ethics benefits the pyramid, as it will be present in all responsibilities. Prior research had joined and compared the ethical reasoning of private sector tax practitioners, government revenue tax practitioners, and a non-tax (control) group in both social and tax contexts ([Doyle et al. 2022](#)).

Discretionary responsibility corresponds to voluntary actions. [Carroll \(1979\)](#) points out that it may not be correct to use the term responsibility for something that is voluntary and at the discretion of each company. A company can carry out certain CSR activities not provided for by law and for which the community does not have high expectations but will benefit as a whole. [Carroll \(1991\)](#) mentions that an example of discretionary responsibility is donations made by a company to charities or arts organizations.

Regarding the social issues involved, these are constantly evolving in response to the community's needs. For [Carroll \(1979\)](#), the social issues involved should address social, environmental, and ethical issues. However, the main difficulty is that these differ from sector to sector. For example, [Carroll \(1979\)](#) states that a financial institution is not under as much pressure regarding environmental issues as a factory will be. Social issues should also be identified as a fundamental aspect of corporate social performance ([Carroll 1979](#)).

Finally, [Carroll \(1979\)](#) identifies the last dimension of philanthropic responsibility, which is based on being a good citizen. With this dimension, Carroll wants to draw attention to the need for organizations to contribute to community resources and improve the quality of life of the surrounding populations.

The European Commission has also defined the dimensions of CSR. It states that "corporate social responsibility refers to actions taken by companies beyond their legal obligations towards society and the environment. Certain regulatory measures can create more favorable conditions for companies to voluntarily assume this responsibility" ([European Commission 2011](#), p. 4). According to the European Commission's Green Paper ([European Commission 2001](#)), CSR is divided into internal and external dimensions. The internal dimension concerns socially responsible practices regarding a company's employees. The internal dimension addresses issues such as human resource management, health and safety at work, adapting to change, and managing environmental impact and human resources. The external dimension is about developing socially responsible practices by a company regarding its stakeholders. Local communities, business partners, suppliers, and consumers are the stakeholders referred to in the European Commission's Green Paper ([European Commission 2001](#)) regarding the external dimension. The external dimension also highlights the importance of socially responsible practice in terms of human rights and global environmental concerns. Different literature presents the classification of CSR into several categories: economic, environmental, social, and corporate governance ([Hoang 2018](#); [Kocmanová et al. 2016](#); [Martins et al. 2023](#); [Kocmanová and Šimberová 2014](#); [Laguier et al. 2015](#)). In this study, this classification is applied.

### 2.3. Tax Planning and Social Responsibility

CSR is used as an independent variable by several researchers in the study of the influence of social responsibility on tax planning. Various strategies have been used to measure this variable, ranging from the use of databases (e.g., KLD (Kinder, Lydenberg, Domini & Co., Boston, USA) and VIGEO EIRIS) to the use of data extracted from reports and accounts, environmental sustainability reports, and the companies' websites (Wiseman 1982; Cho and Patten 2007; De Villiers and Van Staden 2011; Lanis and Richardson 2012).

Lanis and Richardson (2012) studied the relationship between social responsibility and tax planning for companies listed on the Australian Stock Exchange from 2008 to 2009. Tax planning was measured through two ETR-related measures: the GAAP ETR and the ratio of income tax to operating cash flows. The components of social responsibility, business strategy and CSR, personal strategy, social and environmental investment, clients and suppliers, and community and political involvement were measured by extracting the data disclosed by the companies in their reports and accounts or on their institutional websites.

The results obtained by Lanis and Richardson (2012) show a negative relationship between CSR and tax planning, i.e., socially responsible companies have less aggressive tax planning. A company's commitment to social investment and corporate strategy (including ethics and business conduct) are key elements of CSR that have a negative impact on tax planning. Regarding the dependent variable GAAP ETR, the authors found a positive relationship with return on assets (ROA).

Hoi et al. (2013) studied the relationship between CSR and tax planning for the US market from 2003 to 2009. Tax planning was measured through BTD, temporary differences (Desai and Dharmapala 2006), and permanent differences (Frank et al. 2009) between accounting profit and taxable profit. These authors also used Cash ETR, accounting standard FIN 48, and a regression defined by Wilson (2009) in relation to aggressive tax planning as a measure of tax planning. The components of social responsibility used by Hoi et al. (2013) were corporate governance, employee relations, environment, community, diversity, human rights, and product quality and safety, which were measured using data extracted from the KLD.

The results of Hoi et al. (2013) show that companies with four or more irresponsible CSR activities are more likely to use tax havens and have a greater permanent difference between accounting profit and taxable profit (BTD). The results obtained by these authors also show that companies with irresponsible CSR activities have more aggressive tax planning and that corporate culture influences CSR.

Lanis and Richardson (2013) conducted an empirical study between legitimacy theory<sup>1</sup> and social responsibility in companies in the Australian market from 2001 to 2006. The sample of this study contains 20 companies that use aggressive tax planning and 20 others that do not use an aggressive or illegal strategy regarding tax planning activities. Tax planning was measured using data extracted from the Australian Stock Exchange and the Australian Tax Office. Regarding social responsibility, this was measured through the information disclosed by the companies in their reports and accounts.

The results of Lanis and Richardson (2013) show that there is a positive relationship between tax planning and CSR and that the legitimacy theory is confirmed in the context of a company's tax planning. The results obtained by Lanis and Richardson (2013) contrast with those obtained by the same authors one year earlier (Lanis and Richardson 2012), in which there is a negative relationship between tax planning and social responsibility.

Laguir et al. (2015) studied how the different items of social responsibility affect tax planning in relation to French publicly traded companies for the period 2003–2011. Tax planning was measured through BTD, and two measures related to ETR were used, which followed the study by Lanis and Richardson (2012). The CSR's social, environmental, economic, and corporate governance components were measured using data provided by the VIGEO EIRIS database.

The results obtained by Laguir et al. (2015) show that a company's tax planning depends on the nature of the CSR activities and that companies with better financial results have less involvement in social responsibility activities related to the corporate governance

component. Larger companies are less likely to engage in aggressive tax planning activities and are more involved in activities that promote CSR. According to these authors, the higher the score of the indicators associated with the social component, the lower the level of aggressive tax planning. Conversely, the lower the score on the economic dimension indicators, the higher the level of aggressive tax planning. Finally, the results of [Laguir et al. \(2015\)](#) show no correlation between tax planning and the environmental and corporate governance components of CSR.

[Lanis and Richardson \(2015\)](#) studied the performance of CSR in the tax planning of companies in the US market for the period 2003–2009. Tax planning was measured by ETR, BTD, and Tax Dispute, which was taken from the KLD database. The CSR components of community relations, corporate governance, diversity, employee relations, environment, human rights, and products were measured using data provided by the KLD database. The results show that the higher the level of CSR performance, the lower the likelihood of tax evasion, and socially responsible companies resort to tax evasion less. Regarding the components of CSR, the community relations and diversity component reveals particularly important elements of CSR performance that reduce tax evasion.

[Jones et al. \(2016\)](#) studied the relationship between tax planning and CSR in more than 30 countries in 2014. The authors grouped the countries into four large regional groups: North America, Europe, Asia and Oceania, and the United Kingdom. Current ETR, Cash ETR, and Long-Run Cash ETR measured fiscal planning. The CSR's environmental, social, and corporate governance components were measured using data extracted from the VIGEO EIRIS database.

The results show a strong negative relationship between CSR and the variable that measures tax planning, i.e., a high CSR is associated with a lower tax burden and, therefore, greater tax planning. Corporate culture influences aggressive tax planning, and the relationship between aggressive tax planning and social responsibility is higher in Asia and lower in the remaining group of countries. Regarding tax planning measures, the Current ETR has a positive relationship with the corporate governance component and no relationship with the environmental and social components. Cash ETR has a positive relationship with the environmental component and no relationship with the social and corporate governance components. The results of [Jones et al. \(2016\)](#) also show a lack of a relationship between the control variables, ROA, company size and financial leverage, and tax planning. In short, the study by [Jones et al. \(2016\)](#) obtained contradictory results compared to the study by [Lanis and Richardson \(2012\)](#).

[Marta et al. \(2019\)](#) studied the relationship between social responsibility and tax planning for American companies listed on the NYSE and NASDAQ from 2002 to 2006. Tax planning was measured by Cash ETR. The environmental, social, and corporate governance components of social responsibility were measured using data obtained from the Thomson Reuters ESG Scores database.

The results obtained by [Marta et al. \(2019\)](#) indicate that, in general, no evidence was found of a relationship between tax planning and social responsibility. However, through a quartile regression, they found statistical evidence of a relationship between tax planning and CSR at high levels of CSR, consistent with risk management theory. Finally, the theory of legitimacy in a company's tax planning is confirmed.

[Sari and Prihandini \(2019\)](#) studied the relationship between tax planning and social responsibility in companies listed on the Indonesian stock exchange from 2016 to 2017. Tax planning was measured through the Current ETR. These authors only use the environmental, social, and economic components of social responsibility as independent variables, measured through the sustainability reports provided by the Global Reporting Initiative.

The results obtained by [Sari and Prihandini \(2019\)](#) show that tax planning has a positive relationship with the economic component of CSR and a negative relationship with the social and environmental components of CSR.

[De Melo et al. \(2020\)](#) studied the influence of social responsibility on tax planning for companies in the Brazilian market from 2010 to 2018. Tax planning was measured using

the Current ETR. The social, environmental, and corporate governance components were measured using data obtained from the Thomson Reuters ESG Scores database.

The results of [De Melo et al. \(2020\)](#) indicate a positive relationship between the social, environmental, and corporate governance components of CSR and tax planning. Socially responsible companies, regardless of their size, have a lower level of aggressive tax planning.

Given the literature review presented, we are led to formulate the following hypotheses:

**Hypothesis 1:** *Tax planning is influenced by the social component of CSR.*

**Hypothesis 2:** *Tax planning is influenced by the corporate governance component of CSR.*

**Hypothesis 3:** *Tax planning is influenced by the environmental component of CSR.*

**Hypothesis 4:** *Tax planning is influenced by the economic component of CSR.*

The various empirical studies on the influence of social responsibility on tax planning have used control variables. This study used the following control variables: company size, financial leverage, capital intensity, ROA, and the ratio between a company's market value and book value.

ROA corresponds to the ratio between net profit for the period and total assets. The results show a positive relationship between ROA and tax planning in the studies by [Lanis and Richardson \(2012\)](#), using Cash ETR as a measure, and by [Hoi et al. \(2013\)](#), using BTM and the regression defined by [De Melo et al. \(2020\)](#) as a measure. On the other hand, there is a negative relationship between these two variables in the studies by [Hoi et al. \(2013\)](#), using Cash ETR as a measure of tax planning, and by [Marta et al. \(2019\)](#). Regarding the studies by [Jones et al. \(2016\)](#) and [Lanis and Richardson \(2012\)](#), using the ETR ratio between income tax and operating cash flows, there is no relationship between ROA and tax planning.

We therefore formulated the following research hypothesis:

**Hypothesis 5:** *Tax planning is influenced by the return on assets.*

The company size variable is operationalized by the natural logarithm of total assets. The results of the studies show that there is no consensus on the definition of the sign for the relationship between company size and tax planning. [Hoi et al. \(2013\)](#) found contradictory results when using various tax planning measures. When using the regression, there is a positive relationship between company size and tax planning. However, if tax planning is measured by BTM, there is a negative relationship. On the other hand, tax planning measured by Cash ETR shows no relationship with company size. [Laguir et al. \(2015\)](#) and [Lanis and Richardson \(2015\)](#) show a positive relationship between company size and tax planning, which leads to larger companies being more socially responsible. On the contrary, the study by [De Melo et al. \(2020\)](#) highlights a negative relationship between company size and tax planning, which suggests that larger companies have more aggressive tax planning, as the Current ETR ratio is lower. [Lanis and Richardson \(2012\)](#), using Cash ETR as a measure of tax planning, and [Lanis and Richardson \(2013\)](#) and [Jones et al. \(2016\)](#) found no relationship between these two variables.

Given the above, the following research hypothesis is formulated:

**Hypothesis 6:** *Tax planning is influenced by company size.*

Financial leverage corresponds to the ratio of non-current liabilities to total assets (NCL/TA). [Lanis and Richardson \(2012\)](#), using Cash ETR as a measure of tax planning, and [Lanis and Richardson \(2015\)](#) found a positive relationship between financial leverage and tax planning, which shows that indebted companies have a less aggressive level of tax planning. In contrast, [Lanis and Richardson \(2012\)](#), when using the ETR as a measure of tax planning, which corresponds to the ratio between income tax and operating cash



flows, [Lanis and Richardson \(2013\)](#), [Laguir et al. \(2015\)](#), and [Marta et al. \(2019\)](#) found no relationship between financial leverage and tax planning.

Given the above, the following research hypothesis is formulated:

**Hypothesis 7:** *Tax planning is influenced by financial leverage.*

### 3. Research Methodology

The research methodology adopted in this work is based on a quantitative analysis, supported by the development of multiple linear regression. We intend to investigate whether the components of social responsibility influence corporate tax planning. In addition to the variables related to social responsibility, the study will include control variables—in particular, ROA, company size, and financial leverage.

#### 3.1. Sample and Data Collection

The sample for this study covers companies listed on the Euronext Lisbon stock exchange between 2018 and 2019. During the analysis period, 39 companies were identified, from which those with a negative net profit and those with negative income tax were excluded. The final sample was 30 companies; 9 companies were excluded. Companies whose ETR was negative or had a value greater than 1 were also excluded from the analysis. These procedures are in line with those of other authors ([Lanis and Richardson 2012](#); [Hoi et al. 2013](#); [Laguir et al. 2015](#); [Marta et al. 2019](#)).

The data were collected by manual extraction from the annual reports and accounts, some with integrated reporting of the companies in the sample for the period under analysis. In addition, data were collected on the components of social responsibility by consulting the information available on the companies' respective institutional websites.

#### 3.2. Variables

##### 3.2.1. Dependent Variable

The regression model developed has tax planning as its dependent variable. The tax planning variable will be operationalized by the concept of ETR, determined through three alternative variables: Current ETR, Cash ETR, and GAAP ETR. Current ETR results from the ratio between the value of current taxes and profit before tax. Cash ETR is calculated as the ratio between the amount of taxes paid and profit before tax. GAAP ETR results from the ratio between the amount of estimated income tax and profit before tax. The option of measuring tax planning with three variables to measure ETR has the advantage of using alternative measures that overcome the limitations of each of them, which allows for better validation of the results obtained. The data will be taken from the financial statements of each company.

##### 3.2.2. Independent Variables

The independent variables are made up of the social responsibility components and a set of control variables.

Social responsibility was analyzed in terms of four components: social, corporate governance, environmental, and economic components, following the study by [Laguir et al. \(2015\)](#). The social component covers human resources, community involvement, and human rights indicators. The economic component addresses business ethics indicators. The environmental and corporate governance components address environmental and corporate governance indicators, respectively. Each component is made up of several indicators, which in turn are assessed by a set of items. The result of each indicator is the average of the items that make it up.

The values for each indicator that makes up the different components of social responsibility were collected based on a manual analysis of the companies' annual reports with integrated reporting, in line with [Lanis and Richardson \(2012\)](#). The score for each indicator was assessed through a content analysis, identifying keywords related to the indicators. In

this way, each item is classified with scores from 0 to 3 in relation to what each company discloses in its reports and accounts. A score of 0 applies to companies that do not address a particular item, while a score of 1 refers to a small reference to a specific item. On the other hand, a rating of 2 corresponds to the existence of several references to a given item, which is evidence of the companies' concern with this issue. A rating of 3 is considered quite satisfactory, meaning that the information disclosed by the companies places a lot of emphasis on this item, which shows that they are proactive. Table 1 summarizes the components, indicators, items, and keywords used, which were the basis for constructing the working tool used to collect the data.

**Table 1.** Components, indicators, items, and keywords on social responsibility for CSR.

Components	Indicators	Items	Keywords
	Human Resources	<ul style="list-style-type: none"> <li>• Career management and job promotion</li> <li>• Quality of remuneration systems</li> <li>• Improved health and safety conditions</li> <li>• Employee training</li> <li>• Other</li> </ul>	Career Progression Remuneration Salaries Health Safety Training Employees Human Resources
SOCIAL COMPONENT	Community involvement	<ul style="list-style-type: none"> <li>• Promotion of social and economic development</li> <li>• Social impact of the company's products/services</li> <li>• Contribution to causes of general interest</li> </ul>	Development Social Economic impact Product Service Society Community Donations Interest
	Human Rights	<ul style="list-style-type: none"> <li>• Respect for fundamental human rights</li> <li>• Non-discrimination and promotion of equal opportunities and diversity</li> <li>• Other</li> </ul>	Human rights Equality Gender equality Discrimination
CORPORATE GOVERNANCE COMPONENT	Corporate governance	<ul style="list-style-type: none"> <li>• Balance of power and efficiency of the board of directors</li> <li>• Audit and internal control</li> <li>• Transparency and integration of CSR criteria in executive remuneration</li> <li>• Other</li> </ul>	Corporate Governance Auditing Internal Control
ENVIRONMENTAL COMPONENT	Environment	<ul style="list-style-type: none"> <li>• Environmental strategy</li> <li>• Pollution prevention and control (air, water, biodiversity)</li> <li>• Management of environmental impacts and energy use</li> <li>• Other</li> </ul>	Environment Pollution Impact Air Water Biodiversity Energy Renewable
ECONOMIC COMPONENT	Business Ethics	<ul style="list-style-type: none"> <li>• Product safety</li> <li>• Responsible information to customers and suppliers</li> <li>• Prevention of corruption</li> <li>• Other</li> </ul>	Safety Product Customer Suppliers Corruption.

Source: Adapted from [Laguir et al. \(2015\)](#).

ROA is calculated as the ratio between the net income for the period and a company's total assets. A higher ROA may be associated with more aggressive tax planning ([Jones et al. 2016](#)). [Lu et al. \(2014\)](#) and [Margolis and Walsh \(2003\)](#) found a positive relationship

between ROA and tax planning. However, Hamid et al. (2011) found a negative relationship between ROA and tax planning. The literature thus shows evidence that is unclear about the effect of ROA on tax planning.

Company size is measured by the natural logarithm of total assets. Lanis and Richardson (2012), Hoi et al. (2013), and Jones et al. (2016) point out that larger companies may have more resources to engage in aggressive tax planning. Laguir et al. (2015) also state that large companies are subject to greater public scrutiny and consequently incur a “political cost” in the form of higher ETRs and a less aggressive level of tax planning. For Lanis and Richardson (2012) and Johnson and Greening (1999), company size has a positive relationship with tax planning.

Financial leverage is calculated as the ratio of non-current liabilities to total assets (NCL/TA). Jones et al. (2016) state that higher financial leverage is usually related to aggressive tax planning. According to Gupta and Newberry (1997) and Hoi et al. (2013), leveraged companies will have low values in the ratios related to ETR and may incur aggressive tax planning. Thus, one of the reasons why there is a negative relationship between tax planning and leverage is due to tax-deductible interest payments (Laguir et al. 2015; Lanis and Richardson 2012).

Table 2 summarizes the variables used in the linear regression model developed, indicating their measure and the respective calculation.

**Table 2.** Measurement of dependent and independent variables.

Variable	Measure	Calculation
Tax planning	Current ETR	$\frac{\text{Current taxes}}{\text{EBT}}$
	Cash ETR	$\frac{\text{Paid taxes}}{\text{EBT}}$
	GAAP ETR	$\frac{\text{Income tax}}{\text{ROA}}$
Corporate Social Responsibility	Social component	Average of human resources indicator items: community involvement and human rights.
	Corporate governance component	Average of the corporate governance indicator items.
	Environmental component	Average of the environmental indicator items.
	Economic component	Average of the items in the business ethics indicator.
Return on assets	Return on assets	$\frac{\text{Net profit for the period}}{\text{TA}}$
Company size	Company size	Ln Log of TA
Financial leverage	Financial leverage	$\frac{\text{NCL}}{\text{TA}}$

EBT—Earnings Before Taxes; ROA—Return on assets; NCL—Non-current liabilities; TA—Total assets.

### 3.3. The Linear Regression Model

A multiple linear regression model was developed to test the hypotheses defined, as shown in Equation (1). This model was developed based on validation assumptions, which allow us to study whether or not there is a linear relationship between the chosen variables.

$$TP_i = \beta_0 + \beta_1 ROA_i + \beta_2 CS_i + \beta_3 FL_i + \beta_4 \text{ Social CSR}_i + \beta_5 \text{ Corporate governance CSR}_i + \beta_6 \text{ Environmental CSR}_i + \beta_7 \text{ Economic CSR}_i + \varepsilon_i \tag{1}$$

where

$TP_i$  = Company i tax planning.

$\beta_0$  = y-intercept.

$\beta_j$  (j = 1, . . . 7) = Partial slopes, i.e., variation in tax planning i per unit of variation in each independent variable.

$ROA_i$  = Company i return on assets.

$CS_i$  = Company i size.

$FL_i$  = Company i financial leverage.

Social  $CSR_i$  = Company i Social CSR component.

Corporate governance  $CSR_i$  = Company i Corporate Governance CSR component.  
 Environmental  $CSR_i$  = Company i Environmental CSR component.  
 Economic  $CSR_i$  = Company i Economic CSR component.  
 $\epsilon_i$  = Error term.

The tax planning variable was operationalized by three different measures, leading to the development of three multiple linear regression models. Model 1 uses Current ETR as the measure of tax planning, model 2 uses Cash ETR, and model 3 uses GAAP ETR.

#### 4. Results and Discussion

Table 3 provides Pearson correlation coefficients considering the dependent variable Current ETR. Pearson’s correlation makes it possible to check the intensity and direction of the linear correlation/association between the variables. Thus, in the sample under study, there are moderate correlations between current ETR and ROA (coefficient of  $-0.277$ ).

Table 3. Pearson correlation coefficients.

	Current ETR	ROA	CS	FL	Social CSR	Corporate Governance CSR	Environmental CSR	Economic CSR
Current ETR	1							
ROA	$-0.277^*$	1						
CS	$-0.250$	$-0.263$	1					
FL	$-0.162$	$0.015$	$-0.046$	1				
Social CSR	$0.138$	$-0.413^{**}$	$0.426^{**}$	$-0.066$	1			
Corporate governance CSR	$-0.107$	$-0.123$	$0.250$	$0.083$	$0.110$	1		
Environmental CSR	$-0.066$	$-0.258$	$0.602^{**}$	$0.226$	$0.759^{**}$	$0.214$	1	
Economic CSR	$-0.119$	$-0.173$	$0.451^{**}$	$0.084$	$0.685^{**}$	$0.296^*$	$0.735^{**}$	1

The significance levels are indicated by \* and \*\*, which represent the 5% and 1% level, respectively.

There are also moderate correlations between Social CSR and ROA (coefficient of  $-0.413$ ) and Social CSR and company size (coefficient of  $0.426$ ). There is a strong correlation between Environmental CSR and company size (coefficient of  $0.602$ ), Environmental CSR and Social CRS (coefficient of  $0.759$ ), Economic CSR and Social CRS (coefficient of  $0.685$ ), and Economic CSR and Environmental CRS (coefficient of  $0.735$ ).

Consequently, there are no strong correlations between the independent variables that could influence the results obtained.

The descriptive statistics for the variables included in the study are shown in Table 4.

Regarding the tax planning variable, we can see that the average Current ETR and Cash ETR are not very different, with the Cash ETR ( $0.1897$ ) being higher. We can, therefore, consider that, on average, the current tax and the amount of tax paid by a company are close since they correspond to  $18.01\%$  and  $18.97\%$  of a company’s ETR. In the case of GAAP ETR, the average value is higher at  $0.2317$ . This value is explained by the fact that as well as including current tax in this measure, we also included deferred taxes. Most of the companies in our sample have deferred tax liabilities, which leads to an increase in the tax value. Thus, on average,  $23.17\%$  of the ROA corresponds to the value of income tax.

Regarding the independent variables, the components of social responsibility, the component with the highest level of performance is corporate governance. These figures can be explained by the fact that, in their annual reports, companies give great prominence to the corporate governance report, compared to environmental or social information. As a result, the values are more homogeneous in the corporate governance component and more dispersed in the environmental component. It should also be noted that the environmental component has the greatest total amplitude. The total amplitude of this component is 3 (maximum value, as the scale is from 0 to 3), which reveals a huge difference between companies’ treatment of environmental aspects in the integrated reports and

accounts. As a result, some companies fully disclose environmental information, while others do not address the issue in their integrated reports and accounts by not disclosing the sustainability report.

**Table 4.** Sample descriptive statistics.

	N	Average	SD	Minimum	Maximum
Current ETR	51	0.1801	0.1480	0.0028	0.5823
Cash ETR	51	0.1897	0.1825	0.0017	0.8868
GAAP ETR	51	0.2317	0.1723	0.0043	0.8790
ROA	51	0.0739	0.0918	0.0043	0.4790
CS	51	20.9823	2.0161	16.5395	25.1256
FL	51	0.3418	0.2338	0.0018	1.3729
Social CSR	51	1.8841	0.5928 <sup>1</sup>	0.38	2.76
Corporate governance CSR	51	2.1569	0.3040	1.50	2.75
Environmental CSR	51	1.6912	0.9508	0.00	3.00
Economic CSR	51	1.9706	0.5377	0.50	2.75

SD—standard deviation; ROA—return on assets; CS—company size; FL—financial leverage. <sup>1</sup> The calculation of this item concerns the average standard deviation of the human resources, community involvement, and human rights indicators.

Regarding ROA, the ratio between the net profit for the period and assets had a minimum of less than 1% and a maximum of approximately 48%. The company size variable shows a big difference in the size of the companies in the sample, which leads to a higher standard deviation. Finally, financial leverage shows that, on average, the NCLs of the companies in the sample correspond to 34.18% of the total value of assets. The value of the financial leverage ratio is quite different between the companies in the sample. Thus, some companies have much lower NCLs than assets, while others have higher NCLs than assets, which, in the latter case, leads to negative equity.

Pearson's linear correlation coefficient shows several positive and statistically significant correlations between most of the components of social responsibility. Thus, these results indicate that companies with high CSR values do so in their various components. There is a positive and moderate correlation between the size of a company and the social, corporate governance, and economic components and a positive and strong correlation with the environmental component. Thus, larger companies tend to be more socially responsible. On the other hand, companies with a higher ROA tend to be less socially responsible.

The multiple linear regression model was estimated by the least squares method, using the Enter method as the variable selection method.

In developing the linear regression, we validated the assumptions of its application. The Kolmogorov–Smirnov test, which is the most appropriate for the sample size, shows that the residuals of the Current ETR and GAAP ETR models have a normal distribution, while the residuals of the Cash ETR model do not. The analysis of the scatter diagrams validates the assumption of homoscedasticity and the absence of autocorrelation between the predicted values (standardized) and the residual values (standardized). The scatter diagrams show that the variance in all the models is approximately constant since the residuals are distributed more or less randomly around zero. In addition, the residuals do not show an increasing or decreasing trend, which could compromise the homoscedasticity of the residuals. Another condition that the residuals meet is that they do not show a certain pattern (such as being shaped like a parabola), which would compromise the linearity hypothesis. Thus, the residuals in the scatterplot appear more or less randomly distributed, which leads us to believe that there is no relationship between them, so they are assumed to be independent.

The regression coefficients obtained for each independent variable, which allow us to write the adjusted model, are shown in Table 5.

**Table 5.** Regression coefficients, *p-value* of Student's *t*-test, and respective conclusions.

		Current Etr	Cash Etr	Gaap Etr
Constant	Coefficient	0.874	0.715	0.783
	<i>p-value</i>	0.006	0.067	0.036
ROA	Coefficient	−0.468	−0.516	−0.557
	<i>p-value</i>	0.060	0.097	0.061
	Influence	No	No	No
CS	Coefficient	−0.030	−0.022	−0.026
	<i>p-value</i>	0.025	0.176	0.100
	Influence	Yes	No	No
FL	Coefficient	−0.108	−0.012	−0.113
	<i>p-value</i>	0.266	0.920	0.332
	Influence	No	No	No
Social CSR	Coefficient	0.059	0.100	0.062
	<i>p-value</i>	0.353	0.212	0.411
	Influence	No	No	No
Corporate governance CSR	Coefficient	−0.007	−0.100	0.054
	<i>p-value</i>	0.924	0.254	0.513
	Influence	No	No	No
Environmental CSR	Coefficient	0.021	0.008	0.020
	<i>p-value</i>	0.635	0.890	0.705
	Influence	No	No	No
Economic CSR	Coefficient	−0.062	0.000	−0.099
	<i>p-value</i>	0.289	0.998	0.161
	Influence	No	No	No

ROA—return on assets; CS—company size; FL—financial leverage.

The coefficient of determination obtained for the estimated model ( $R^2 = 0.263$ ). When we consider the adjusted coefficient of determination ( $R^2_a = 0.143$ ), we can say that 14.3% of the total variability in tax planning is explained by the independent variables in the adjusted linear regression model.

The linear regression model obtained can only be used to infer functional relationships between tax planning and the independent variables if a number of assumptions are met, namely, that the errors/residuals have a normal distribution with a zero mean and constant variance and are independent and random and that the independent variables are orthogonal, i.e., they are not correlated or, at most, show weak correlations (Marôco 2014). Thus, using the Kolmogorov–Smirnov and Shapiro–Wilk tests, the normal probability graph (QQ-plot of the residuals), the scatter diagram between the predicted values (standardized) and the residual values (standardized), and the variance inflation factors (VIF) obtained for each of the independent variables, we concluded that the model's assumptions were met.

Hypothesis 1 aims to test whether the social component of CSR influences tax planning. In all the models, the *p-value* of the Student's *t*-test is higher than the significance level considered (0.05). Thus, the social component of CSR does not influence tax planning, leading us to reject the hypothesis. This result may be due to the low variability of the tax planning variables supported by the low value of the standard deviation. This means that most of the companies in our sample have tax planning values close to the average. The result may derive from the set of indicators used to measure the social component of social responsibility insofar as these are not reflected in the companies' tax management policy. Our study is in line with the research by Jones et al. (2016) since they found no correlation with the social component. On the other hand, our study contrasts with those of Laguir et al. (2015) and De Melo et al. (2020), as these authors found a positive relationship

between tax planning and this component. [Sari and Prihandini \(2019\)](#) found a negative relationship between the social component of CSR and tax planning.

Hypothesis 2 sought to ascertain whether the corporate governance component of CSR influences tax planning. In our study, we reject hypothesis 2, which means that the corporate governance component does not influence tax planning. The results of [Jones et al. \(2016\)](#), using Current ETR as the dependent variable, and [De Melo et al. \(2020\)](#) differ from ours, as they obtained a positive relationship. However, when analyzing the results of [Jones et al. \(2016\)](#) using Cash ETR as the dependent variable, the results are similar to ours since there is no relationship between the corporate governance component and tax planning. Our results regarding hypothesis 2 also corroborate the research by [Laguir et al. \(2015\)](#).

Hypothesis 3 sought to test whether the environmental component of CSR influences tax planning. We reject hypothesis 3, meaning that the environmental component does not influence tax planning. Our study is in line with the research by [Jones et al. \(2016\)](#) and [Laguir et al. \(2015\)](#) using Current ETR as the dependent variable. On the contrary, [Jones et al. \(2016\)](#), using Cash ETR as the dependent variable, and [De Melo et al. \(2020\)](#), found a positive relationship between tax planning and the environmental component of CSR. In contrast, [Sari and Prihandini \(2019\)](#) found a negative relationship between these two variables.

Hypothesis 4 aimed to test whether the economic component of CSR influences tax planning. As with the other components, the economic component does not influence tax planning. Regarding this component, the study by [Laguir et al. \(2015\)](#) contrasts with ours since they found a negative and statistically significant relationship between tax planning and the economic component of CSR. On the other hand, [Sari and Prihandini \(2019\)](#) found a positive relationship between these two variables.

Hypothesis 5 sought to ascertain whether ROA influences tax planning. As with the components of social responsibility, in our study, ROA does not influence tax planning. Our study corroborates the results of [Lanis and Richardson \(2015\)](#) and [Jones et al. \(2016\)](#) for both the dependent variable Current ETR and the variable Cash ETR. [Lanis and Richardson \(2012\)](#) obtained contradictory results to ours, as they found a positive relationship between these two variables when using Cash ETR as a measure of tax planning. On the other hand, [Hoi et al. \(2013\)](#), using Cash ETR as a measure of tax planning, and [Marta et al. \(2019\)](#) found a negative relationship between tax planning and ROA.

Hypothesis 6 aims to test whether tax planning is influenced by company size. Regarding this hypothesis, using Cash ETR and GAAP ETR as the dependent variable, company size does not influence tax planning. Our results for these two dependent variables are in line with research by [Lanis and Richardson \(2012\)](#) and [Hoi et al. \(2013\)](#), using Cash ETR as a measure of tax planning, as well as research by [Lanis and Richardson \(2013\)](#) and [Jones et al. \(2016\)](#). However, when we use Current ETR as the dependent variable, we obtain a negative relationship between company size and tax planning. Thus, as a company's size increases, its effective tax rate will be lower. [Marta et al. \(2019\)](#) also found a negative relationship between company size and tax planning. [Laguir et al. \(2015\)](#) and [Lanis and Richardson \(2015\)](#) obtained contradictory results to ours since they found a positive correlation between tax planning and company size.

Hypothesis 7 sought to ascertain whether tax planning is influenced by financial leverage. Our results show that there is no correlation between financial leverage and tax planning. Our study corroborates the findings of some leading authors and researchers who have conducted studies on the influence of social responsibility on tax planning ([Lanis and Richardson 2013](#); [Laguir et al. 2015](#); [Jones et al. 2016](#); [Marta et al. 2019](#)). A positive relationship between financial leverage and tax planning was obtained in the studies by [Lanis and Richardson \(2012\)](#), using Cash ETR as a measure of tax planning, and by [Lanis and Richardson \(2015\)](#).

The results we obtained may be the consequence of the low variability of the tax planning variables, supported by the low value of the standard deviation. This means that most of the companies in our sample have tax planning values close to the average.

Another reason for the obtained results can derive from the set of indicators used for measuring the independent variable insofar as these are not reflected in the companies' tax management policy. It is possible that Portuguese tax system tax benefits or tax options do not contain a strong relation with the variables applied in the regression model or that the possible benefits do not have a strong impact on financial statements. We cannot rule out the possibility that the official reports, specifically those of a non-financial nature, of the companies in our sample do not clearly and visibly reflect their position on sensitive issues.

## 5. Conclusions

The influence of social responsibility practices on companies' tax planning activities is a pertinent topic for a better understanding of business management practices. The relationship between tax planning and CSR is most often related to the "moral obligation" to pay taxes to society. The use of aggressive tax planning by companies is considered socially irresponsible (Lanis and Richardson 2012).

In carrying out this research, we wanted to develop a study that would guide the behavior of companies in Portugal on the influence that each component of social responsibility has on tax planning activities.

The study focused on a sample of companies listed on the Euronext Lisbon stock exchange for 2018 and 2019. The research hypotheses were validated using a linear regression model. The tax planning variable was operationalized using three options: Current ETR, Cash ETR, and GAAP ETR. Variables were defined for the CSR's social, corporate governance, environmental, and economic components. The study also included the following variables: ROA, company size, and financial leverage.

In hypothesis 1, we tested whether the social component of CSR influences tax planning. The results show no correlation between tax planning and the social component of CSR. Hypothesis 2 sought to ascertain whether the corporate governance component of CSR influences tax planning. The results show that there is no influence of the corporate governance component of CSR on tax planning. Hypothesis 3 sought to ascertain whether the environmental component of CSR influences tax planning, while hypothesis 4 sought to test whether the economic component of CSR influences tax planning. The results show that CSR's environmental or economic components do not influence tax planning. In hypothesis 5, we found no correlation between ROA and tax planning. Regarding hypothesis 6, we wanted to check whether a company's size influences tax planning. When we used the Cash ETR and GAAP ETR variables as a measure of tax planning, we found no relationship between company size and tax planning. However, if we use the Current ETR variable, the results show a negative influence of company size on tax planning, meaning that bigger companies are associated with a higher level of tax planning. In the case of hypothesis 7, we tested whether tax planning is influenced by financial leverage. However, the financial leverage variable did not influence tax planning.

In our opinion, this study has two particular limitations. The first refers to the size of the sample, with a final number of observations of 51. It would be advisable to increase the number of observations and the time horizon in the future. The second concerns the manual collection of information on the different components of CSR. This analysis could lead to some subjectivity in the content analysis. We also believe that many companies are not yet concerned with disclosing some aspects of CSR that they actually practice. This limitation could be overcome if specific databases existed in Portugal with information on companies' social responsibility practices, as is the case in other countries (e.g., the KLD or VIGEO EIRIS databases).

This research has highlighted the importance of disclosing CSR practices and ensuring that companies do not miss out on the tax benefits associated with good CSR practices. The conclusion that the different components of CSR do not influence the level of tax planning may be due to the low use of the tax benefits in force.



A suggestion for future research is to carry out a new study for the Portuguese market after the COVID 19 pandemic period, which can be compared to ours and which shows the differences between the pre- and post-pandemic periods.

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## Note

- <sup>1</sup> According to [Conceição et al. \(2011\)](#), the theory of legitimacy demonstrates the concern of companies with adjusting their actions and activities towards the community while respecting its values and principles.

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