

Income Tax of Portuguese Listed Companies in Financial and Corporate Social Responsibility Reports

Julija Cassiano Neves¹
Fábio Albuquerque¹

¹Lisbon Accounting and Business School, Portugal

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Abstract

Purpose – The purpose of the study was to evaluate reporting for income tax from a social responsibility perspective. Specifically, the research aims to ascertain the relationship between various aspects of income tax disclosure, namely its extent, effective tax rate and reporting for tax in corporate social responsibility reports, and various factors such as size, profitability, leverage and sector.

Design/methodology/approach – Data collected from financial and corporate social responsibility reports covering the 2010-2014 period of entities included in the Portuguese Stock Index (PSI) 20 were used to build two indices. Using the logistic regression technique to assess the data gathered for two models, the indices were used as the dependent variables within the first model, and the effective tax rate was used in the second one. Size, profitability, leverage, sector and the effective tax rate were chosen as independent variables.

Findings – The findings demonstrate the existence of a relationship between disclosure indices and size (positive), leverage (negative) and sector (negative). For the effective tax rate, only sector revealed a significant positive relationship.

Originality/value – The study contributes to the relatively novel idea of viewing income taxes as a matter of corporate social responsibility, by focussing on reporting. To the best of the authors' knowledge, the study is unique in analysing the data collected from the corporate social responsibility perspective.

Keywords – Income taxes; Disclosure; Corporate social responsibility; Effective tax rate



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I Introduction

Tax, fair share, transparency and tax avoidance issues have been increasingly debated over recent years. Tax and base erosion and profit shifting (BEPS) are constantly on the agenda of the Group of Twenty (G20), the Organisation for Economic Co-operation and Development (OECD), the European Commission, non-governmental organisations (NGOs) and national governments, to name a few. The international and national effort against income tax avoidance and tax minimisation strategies employed by multinational corporations in an increasingly global world has become an important political issue and news topic nationally and globally.

The fruits of the joint effort are beginning to emerge: the European Commission has opened up in-depth investigations to examine the corporate income tax payments of several multinationals and has recently declared illegal the arrangements in place for Starbucks (in the Netherlands) and Fiat (in Luxembourg) (Comission, 2015); Apple's case is still to be decided (Commission, 2014); the Belgian excess profit regime has also been condemned and millions of euros are to be paid back in tax by multinationals (Commission, 2016). In the United States of America (US), the discussion of international tax policy reform is ongoing. It has been reported that the US authorities have recently been harsher in their tax audits of multinationals, including the recent 2015 Coca-Cola investigation (Bloomberg, 2015).

Transparency is directly related to disclosure. As far as transparency in financial statements is concerned, the most influential financial standards that exist, such as the International Financial Reporting Standards (IFRSs - here and elsewhere in this paper, the term IFRS is used to cover the International Accounting Standards (IASs) issued previously by the International Accounting Standards Committee) and the US Statements of Financial Accounting Standards (SFASs), require certain disclosures while reporting for income taxes,

which should provide the users of financial statements with the most relevant and significant information regarding the income tax obligations of an entity. Aggressiveness, in turn, is generally negatively viewed from a CSR standpoint.

If one looks at the whole known history of humankind, corporate social responsibility (CSR) is a relatively new phenomenon (Wells, 2002). There are many views on what exactly constitutes CSR and whether one should apply any limits to this phenomenon (see, for example, Garriga & Melé, 2004).

As CSR is a part of our life and subject to constant change, we can hardly set any limits to it and the concept will take on a different shape each time there is a significant change in the corporate world. Thus, CSR has developed and changed over the time of its existence. From environmental concerns, human rights, health and safety we see a development towards respecting the legal order and, lately, we find that paying taxes is already being seen as an element of CSR.

On one hand, income taxes are an element of financial reporting, and are virtually always present, since public finances and tax is a constitutive element of most modern societies and states. Contributing to the public finances is clearly part of how business contributes to society, its sustainability, its development and well-being. The other perspective, which is also embedded in financial reporting, is that tax appears to be and may feel like a cost. In line with the basic laws of commerce and business, there is an effort to reduce costs in search of more efficient profit-making.

These two approaches are being discussed in the media and at an academic level. The debate has been even more prominent since the global financial crisis of 2008, conditioned by the slow economic recovery and the budgetary needs of many countries. As Avi-Jonah (2014:2) puts it, the question is "whether publicly traded United States (US) corporations owe a duty to their shareholders to minimize their corporate tax burden through any legal means, or if

instead, strategic behaviours like aggressive tax-motivated transactions are inconsistent with CSR". According to Scheiwiller and Symons (2014), who discuss tax and CSR in an article published in the Organisation for Economic Co-operation and Development (OECD) Observer online, the groups campaigning on tax would like to see "a change in reporting standards to require companies to report their tax affairs in much more detail in their accounts, essentially a profit and loss account, assets and tax charge for every country where they operate, known as country-by-country reporting".

These two leading forces give an impetus to the debate, scientific research and development in the field. As will be clear from further discussion, nowadays there seems to already be agreement that paying tax has become a CSR issue. Some companies have started to include tax payments as one of the issues discussed in their CSR reports. Scheiwiller and Symons (2014) give the example of the mining giant Anglo American: total tax contribution by country is reported in its CSR reports as part of its economic dimension, including all the different taxes paid and collected and explaining how all these taxes are generated across the life-cycle of a mining project, showing that two thirds of its tax payments are made in developing countries.

The inclusion of tax as an aspect of CSR reporting is indeed presenting tax information in a way that is easy to understand. Nonetheless, considering that no international and/or mandatory standards effectively exist in this regard, the information highlighted in CSR reports might be selective information cherry-picked by the reporting entity. The financial reporting standards, on the other hand, provide for certain minimum mandatory reporting and disclosure on income tax matters.

As far as CSR reporting is concerned, the academic research on whether corporate income tax is a subject for CSR reporting, on paying one's fair share of tax and on tax avoidance as an irresponsible CSR activity is still emerging

(see, for example, Dowling, 2013; Hoi, Wu & Zhang, 2013; Preuss, 2012; Ylönen & Laine, 2014)"ISBN" : "00014826", "ISSN" : "00014826", "PMID" : "91960059", "abstract" : "We examine the empirical association between corporate social responsibility (CSR. As will be shown in the theoretical background section, through a review of the financial standards referred to above and the academic literature, the studies undertaken until now have indeed discussed aspects of potential tax avoidance and empirical CSR reporting for income tax (see, for example, Avi-Yonah, 2008; Dowling, 2013; Jenkins, J. G. & Sawyers, 2002; Preuss, 2012). However, possibly because at this stage income tax is still being labelled an "emerging" CSR matter, no general and comprehensive overview has yet been produced to ascertain whether any of the most influential CSR reporting standards published by the UN, GRI and OECD recognise and/or mention income tax as a social responsibility item in their recommendations for CSR reporting.

In fact, the academic literature on tax as a CSR matter is still emerging, with the authors accepting that tax is a matter of CSR. A significant body of research has been developed as regards the US FIN 48 rules, demonstrating various aspects of its impact and the change in the tax behaviour of US corporations. International research provides evidence that more socially responsible firms are less tax aggressive, whereas, to the best of the authors' knowledge, no similar research has yet been conducted in Portugal.

The Portuguese academic literature and research has focussed mainly on the issues of tax, tax avoidance, tax reporting and CSR reporting separately. Thus, although the financial statements of Portuguese companies have come under the scrutiny of non-governmental organisations (NGOs) (see Fernandez, Mcgauran & Frederik, 2013) and the press (Venâncio, 2012a; Venâncio, 2012b) from the perspective of potential tax avoidance, no national academic discussion has arisen yet as regards their transparency in financial or CSR reporting.

Considering the issues mentioned before, it would not be justified to require income tax to be a matter of CSR reporting if income tax is not an item noted in the recommendations of the most influential bodies that issue guidelines for CSR reporting worldwide. Therefore, an initial theoretical analysis of the existing CSR reporting guidelines (the UN Global Compact, the GRI G4 Guidelines and the OECD Guidelines) is indispensable for the purposes of the topic chosen for this paper.

Based on the points previously mentioned, the main reasons for choosing the topic may be summarised as follows:

- First, corporate income tax payments, tax planning and tax avoidance is an issue that has been taken from the national to international level. There are a lot of changes going on regarding increasing transparency and combatting BEPS at the G20, OECD, EU and general international level;
- Second, income tax is increasingly becoming viewed as a CSR matter;
- Third, perhaps considering that these developments are recent, the academic research has lagged behind in terms of linking income tax or CSR reporting and income tax payments as a CSR factor on a comprehensive basis.

These reasons provide a compelling and sufficient background for conducting theoretical and practical research in this field.

Hence, assuming that tax is certainly developing into a CSR issue nowadays, it is of interest to investigate the current financial and CSR reporting rules as well as the disclosure of CSR-useful tax information in annual accounts and CSR reports in Portugal. From an empirical perspective, this paper aims to investigate the disclosure matters and effective income tax rate related to tax on income or corporate tax, particularly from a CSR viewpoint. To this end, the practices based on accounting standards as well as social responsibility guidelines will be

examined and, thus, CSR reports will be used as another source, in addition to the usual analysis exclusively based on annual consolidated reports.

Based on the above, the overall purpose of this study is to contribute to and develop the existing national research on the disclosure of income tax matters and CSR reporting in Portugal. As will be demonstrated further on by the review of the academic literature, this research is more specific in comparison to the previous more general national research both on income tax disclosure and reporting and CSR reporting. Considering the CSR angle of this research, the study presents a novelty at the level of national academic research by including income tax reporting and disclosure as a subject of CSR, and exploring income tax disclosure as a CSR matter at the level of the most influential Portuguese companies. Also, no identical international research could be found by the authors at the time of submitting this paper. Thus, this research will represent a novel contribution to the existing national academic research and available international research.

2 Literature review

The academic and accounting literature linking the financial reporting disclosures of corporate tax and CSR has only emerged in the past few years. In recent years, scandals involving the widespread use of tax planning schemes resulting in the payment of disproportionately low corporate taxes by multinational corporations like Amazon, Google and Starbucks have taken on a worldwide dimension and are raising awareness of the issue, resulting in academic studies and research on the issue. According to Jenkins and Newell (2013:386), “the issue of corporate responsibility towards taxation has moved to centre stage” and “it is likely to become an increasingly important item on the CSR agenda in the foreseeable future”.

It should be noted that tax avoidance has been always a topic for academic discussion mostly among tax law specialists, even though

no relationship was established between this and CSR or financial reporting. This literature is not the focus of the present research and thus will not be reviewed here, except for the Portuguese academic literature on this subject.

The views on taxation as a CSR matter put forward in the academic literature may diverge, but there is a predominant trend towards considering taxation as an item of CSR rather than excluding it from the responsibility framework.

As far as purely theoretical studies are concerned, Avi-Yonah (2008) discusses the three main theoretical views of the corporation and concludes that tax minimization strategies are unacceptable under any of these theories discussed. Dowling (2013) also examines the “fair share” of tax issue as a matter of CSR from a business ethics standpoint and scrutinises it under stakeholder group theories, concluding that taxation is a boundary condition for CSR. He notes that businesses have resisted discussing taxation as a moral issue and that the complexity of tax regulations and modern accounting rules, together with the global scale of operations, make it almost impossible for a member of the general public to understand whether a company pays its fair share of tax (Dowling, 2013).

Christensen and Murphy argue that “taxes are the lifeblood of the social contract, vital to the development and maintenance of physical infrastructure and the sustenance of the infrastructure of justice that underpins liberty and the market economy” (2004:37). In addition, these authors advocate reaching an intergovernmental agreement at a global level to define minimum standards of transparency and disclosure by companies, in which the IASB is given one of the leading roles (Christensen & Murphy, 2004).

Preuss (2012) discusses the issue of CSR of companies domiciled in tax havens, namely Bermuda and the Cayman Islands. The author rejects the utilitarian view that considers tax haven companies as wealth generators for their shareholders or tax haven

governments, undoubtedly seeing taxation as a CSR category. The study argues that, although offshore-headquartered companies cannot isolate themselves completely from global CSR awareness, off-shore incorporation suppresses one important aspect of their responsibilities to society (i.e., taxation) and shows that the CSR of such companies is mostly mere window-dressing (Preuss, 2012).

Finally, Zhang (2010) approaches tax and CSR from the tax policy and Marxist ideology standpoints, advocating for the introduction of tax incentives in China to stimulate socially responsible corporate activities, such as public welfare donations, environmental protection and employment.

The US was the first country to formally link financial reporting and uncertainties in tax position, by means of the adoption of Financial Accounting Standards Board (FASB) interpretation (FIN) 48 and by introducing mandatory disclosure requirements. Since then, research has emerged in the US as regards the impact of FIN 48 and the tax behaviour and disclosures of multinational corporations. The research in the US is relevant and will be briefly reviewed here.

Before the adoption of FIN 48, Jenkins and Sawyers concluded that tax shelters were unlikely to be disclosed unless they resulted in a material contingent liability (Jenkins & Sawyers, 2002). Hope, Ma and Thomas (2013) tested the relationship between corporate tax avoidance and disclosure of geographical earnings by US firms. The authors found that firms opting not to disclose geographical earnings in their financial reports had lower effective tax rates, in line with the perception that non-disclosure of geographical earnings helps mask tax avoidance. The empirical research carried out by Mills, Robinson and Sansing (2010) investigates how FIN 48 changed the strategic interaction between corporations and the government. Their research shows that taxpayers with stronger positions obtain higher expected payoffs post-FIN 48 (Mills et al., 2010).

Also, the research finds that liabilities disclosed under FIN 48 can be overstated or understated relative to the expected cash payment (Mills et al., 2010). The authors also conclude that some taxpayers are more likely to be audited because of their disclosures or they are deterred from taking more aggressive tax positions because of FIN 48 (Mills et al., 2010).

Another study finds that the implementation of FIN 48 possibly increased larger companies' tax burdens, due to the prohibition of recording any tax benefit which does not pass the "more-likely-than-not" test (Tomohara et al., 2012). In line with Mills et al. (2010), this research concludes that FIN 48 appears to have reduced the appeal of more aggressive tax minimization strategies (Tomohara et al., 2012). McKinley and Owsley (2013) assert that inter-group transfer pricing often falls into the category of uncertain tax positions and is likely to increase tax charges as well as lowering the valuation allowance under FIN 48. Finally, the study by Lisowsky, Robinson and Schmidt (2013) links public disclosures of tax reserves with mandatory private disclosures of tax shelter participation made to the Internal Revenue Service. The authors find strong evidence that tax reserves are positively associated with tax shelters, attributing 48% of their value to the benefits of tax shelters, while other commonly used measures of tax avoidance are not (Lisowsky et al., 2013).

The reviewed research on the effects of FIN 48 implementation does not directly link the findings to CSR. Indeed, as noted by a number of authors (Fisher, 2014; Jenkins & Newell, 2013; Dowling, 2013), taxation is hardly mentioned in CSR reports and tax avoidance is rarely discussed in the context of CSR. Nonetheless, the academic research on this subject is emerging at a considerable pace, which may be a result, for instance, of the tax avoidance scandals of recent years, which have been discussed globally, the increasing public awareness and the work of the G20 and OECD on tax transparency, tax

competition and combating base erosion and profit shifting (BEPS).

The existing research combining theoretical and empirical discussions examines various aspects of taxation and CSR. By adopting a wider view of the corporation and considering a larger range of stakeholders that goes beyond management and shareholders, Lanis and Richardson (2012) put taxes into the CSR framework, arguing that tax aggressiveness is socially irresponsible. In the empirical part of their research, the authors examine the relationship between CSR and tax aggressiveness in Australia. They demonstrate that the higher the level of CSR disclosure, the lower the tax aggressiveness, and their further analysis also shows that the existence of a social investment commitment and corporate and social responsibility strategy reduces tax aggressiveness. Laguir, Staglianò and Elbaz (2015) examine how the CSR dimension influences the corporate tax aggressiveness of French listed firms. In line with previous research, the authors conclude that the higher the social dimension of CSR, the lower the tax aggressiveness. Hoi, Wu and Zhang (2013) adopt a broader perspective to evaluate CSR activities and examine the association between CSR and tax avoidance, also using FIN 48 as a natural quasi-experiment to further explore this link. More specifically, and partially relating to empirical research methods used by Lanis and Richardson (2012), the research conducted by these authors collectively suggests that firms with excessively irresponsible CSR activities are more aggressive in avoiding taxes.

Laine and Ylönen (2014) also argue that corporate tax payment is an issue of CSR and explore the transfer pricing strategy of a Finnish corporation as a case of implementing aggressive tax minimization strategies but not disclosing tax matters in its numerous corporate responsibility publications. Huseynov and Klamm (2012) explore the relationship between auditor-provided tax services and the impact of CSR. They conclude that tax fees are always associated with a lower effective tax rate (i.e., the percentage of income

tax charged in relation to pre-tax earnings). However, the relationship between fees paid for auditor-provided tax services and tax avoidance is affected by levels of CSR: tax fees are associated with a higher effective tax rate for firms with stronger CSR.

Finally, there are qualitative studies that may be used for discussing CSR as a risk management tool: Hardeck and Hertl (2013) investigate the effects of media reports on aggressive and responsible tax strategies, Desai and Dharmapala (2004, 2008) investigate the links between corporate tax avoidance and corporate governance, Kenyon examines tax avoidance practices in Brazil (2008) and Lenter, Slemrod and Shackelford (2003) discuss the pros and cons of public disclosure of corporate tax returns information, as a means to increase transparency and accountability.

3 Hypotheses and methodology

Considering the objectives of the empirical research outlined in this paper, which is to assess levels of CSR-related income tax disclosure and its links to “fair share” contribution, the level of disclosure will be related to the effective tax rate (ETR), which will help to ascertain whether companies that disclose more complete information on tax payments also tend to pay more in taxes. To this end, the Total Index will be associated (regressed) with ETR as an indicator of “fair share” contribution. Furthermore, the Total Index will be related to financial factors of size and profitability, as well as the sector.

It is generally expected that larger corporations (i.e. larger sized ones) have more resources and opportunities for tax planning and potential tax avoidance. Also, from a CSR perspective, it is expected that taxes on income generally represent a cost item that may have a certain weight among the expenses and in the accounts, so the level of profitability could be correlated to the general stand towards income taxes and related disclosure. Furthermore, to investigate whether financial factors, such as

size and profitability, may impact the level of disclosure, the relationship is explored between the Total Index and these factors.

Consequently, the following hypothesis H1 and sub-hypotheses will be tested:

H1: *There is a positive relationship between the level of CSR-related income tax disclosure and ETR, size and profitability, and a relationship between the level of CSR-related income tax disclosure and the sector.*

H1.1: There is a positive relationship between the Total Index and ETR.

H1.2: There is a positive relationship between the Total Index and size.

H1.3: There is a positive relationship between the Total Index and profitability.

H1.4: There is a positive/negative relationship between the level of CSR-related income tax disclosure and the sector.

This hypothesis tries to ascertain an association between CSR-related income tax disclosure and ETR. The above (sub-) hypotheses are in line with the previous research, which has consistently linked the degree of disclosure to size and profitability, both at national and international levels (Carvalho, 2008; Lopes, 2014; Pereira, 2013; Silva, 2013){ “id” : “ITEM-2”, “itemData” : { “abstract” : “The adoption of IASB\u2019s standards has represented, in European Union, an important effort of harmonization towards the financial reporting comprehensiveness, reliability, relevance, and comparability. This paper seeks to highlight the importance of Information Compliance Indexes (ICI).

The next hypothesis studies the ETR as a factor of “fair share” contribution and links it to the financial factors. Here, it should be noted that Lanis and Richardson (2012) already studied, within the broader aspects of their investigation, the relationships between ETR (which was the measure of tax aggressiveness) and financial factors of Australian listed entities. Thus, the hypotheses partially repeat a part of the empirical research of these authors and are formulated as follows:

H2: *There is a positive relationship between ETR, size and profitability, and a relationship between ETR and the sector.*

H2.1: There is a positive relationship between ETR and size.

H2.2: There is a positive relationship between ETR and profitability.

H2.3: There is a positive/negative relationship between ETR and the sector.

Finally, to study the specific impact of leverage (indebtedness) on CSR-related income tax disclosure and ETR, Hypothesis H3 is developed as follows:

H3: *The level of leverage negatively influences the level of CSR-related income tax disclosures and ETR.*

H3.1: The level of leverage negatively influences the Total Index.

H3.2: The level of leverage negatively influences the ETR.

The level of leverage has already been linked to information disclosure indices or disclosure items in the national literature (Lopes, 2014; Pereira, 2013) in European Union, an important effort of harmonization towards the financial reporting comprehensiveness, reliability, relevance, and comparability. This paper seeks to highlight the importance of Information Compliance Indexes (ICI, albeit not exactly to an index like the Total Index.

As regards leverage and ETR, in general terms, the above hypothesis and sub-hypotheses are based on the previous international research, which finds that the leverage of multinational corporations may be evidence of thin capitalisation of separate group entities and of tax management to reduce the corporate income tax burden and, hence, ETR (Buettner et al., 2012; Feld et al., 2013; Lanis & Richardson, 2012; Lin et al., 2014; Overesch & Wamser, 2010, 2014; Taylor et al., 2011; Taylor & Richardson, 2013).

The hypotheses will be tested based on the information extracted from the consolidated

financial statements (annual accounts) and CSR reports made publicly available by 17 Lisbon Euronext PSI 20 entities within the period from 2010 to 2014. The population relates to the third quarterly PSI 20 Index review by Euronext, effective on 21 December 2015. The consolidated financial reports (annual accounts) of the 17 companies included in the population and the CSR reports were reviewed irrespective of any of the included entities being excluded from the PSI 20 Index in any prior years. In total, the final sample comprised 85 firm-year observations, which included 85 annual consolidated accounts and 64 CSR reports.

It should be noted that the activity sector was based on the classification adopted in several national studies, such as those developed by the Banco de Portugal and National Statistics, instead of the Euronext Industry Classification Benchmark. The Industry Classification Benchmark appears not to always correctly reflect the main business line of some companies (by classifying, for example, CTT – Correios de Portugal, S.A. in Industry class).

As previously stated, the main objective of this empirical research is to investigate whether and to what extent the ETR and disclosure related to income taxes are viewed by the largest corporations in Portugal as a matter of CSR. These objectives were translated into the hypotheses above, from which operational sub-hypotheses were also developed. To verify them, the research will be based on an analysis of the following main factors:

- a) the level of disclosure related to basic relevant elements of income taxes from a CSR perspective **in the annual consolidated reports**, using the income tax charge disclosure index (the “ITD Index”);
- b) the additional level of disclosure related to income taxes as an element of CSR **in the CSR reports**, using the index which, in addition to the ITD Index mentioned above, considers the level of disclosure in CSR reports (the “Total Index”).

- c) the ETR of an entity, used as an indicator of the “fair share” tax contribution.

The ITD Index and the Total Index are the focal elements, which will be considered as dependent variables in the empirical research presented below. Generally, the existence of information disclosure indices related to income taxes would repeat the previous national research on disclosure: specifically, the research by Lopes (2014) in European Union, an important effort of harmonization towards the financial reporting comprehensiveness, reliability, relevance, and comparability. This paper seeks to highlight the importance of Information Compliance Indexes (ICI constructing an income tax (IAS 12) disclosure index in Portugal, the research by Pereira (2013), Silva (2013) at an international level, that took place in the last decades, through the publication of several laws consecrating this objective, it is expectable that the quality of the information supplied by the economical operators is not only major but also more embracing and more equitable. So, the International Accounting Standards (IAS and Henriques (2011) which led to the adoption, in the European Union, of normative issued by IASB, it is necessary to comply with the presentation and disclosure requirements. This study seeks to understand whether the formal harmonisation within the EU is also a material harmonization, in particular on what deferred taxes are concerned, in Spain, since has been previously verified that this was an area (both accounting and geographically speaking on disclosure and its harmonisation related to deferred taxes, and the research by Carvalho (2008), Fernandes et al. (2013) and Silva (2014) on the degree of disclosure of CSR (mostly GRI) aspects by Portuguese companies.

However, in comparison to the cited studies, the construction of the ITD Index and the Total Index present a certain novelty. The novelty of the suggested indices *vis-à-vis* the prior studies cited above is their focus on income tax disclosure items (in mandatory financial reporting

and voluntary CSR reporting) that are significant from the CSR perspective.

In this sense, whereas all these prior studies covered overall mandatory income tax and voluntary CSR disclosure (F. P. M. de Carvalho, 2008; Fernandes et al., 2013; I. T. Lopes, 2014; Silva, 2014) in European Union, an important effort of harmonization towards the financial reporting comprehensiveness, reliability, relevance, and comparability. This paper seeks to highlight the importance of Information Compliance Indexes (ICI, or focussed on deferred tax disclosure elements (Henriques, 2011; Pereira, 2013; M. D. C. da Silva, 2013) {“id”: “ITEM-2”, “itemData”: {“abstract”: “Due to the crescent accounting harmonization, at an international level, that took place in the last decades, through the publication of several laws consecrating this objective, it is expectable that the quality of the information supplied by the economical operators is not only major but also more embracing and more equitable. So, the International Accounting Standards (IAS, the present research selects disclosure items based on their relevance for CSR, which is in line with the objective of testing the degree of disclosure of information on income taxes from the “fair share” contribution and CSR perspective. In other words, the ITD Index and Total Index do not consider all existing disclosure requirements related to income taxes. For the construction of the ITD Index, only the disclosure items which would be interesting from the CSR perspective were selected. In turn, the Total Index is composed of the ITD Index but takes into account whether and to what extent the information related to income tax expense, commitment to good tax governance and tax compliance were noted in the CSR report of an entity. Thus, the ITD Index and the Total Index are different from all previously designed indices developed by the aforementioned studies related to income tax or CSR disclosure.

As the studies linking taxation and CSR are still emerging, no prior investigation of income tax disclosure from the CSR perspective has been

conducted in Portugal, and no academic literature constructing a hypothesis involving degree of disclosure and transparency in income tax matters was available internationally at the time of conducting the present empirical investigation. Consequently, the selection of mandatory and voluntary CSR disclosure elements was made by the authors with the objective of this paper in mind. The second novelty of the empirical research is its focus on ETR as a measurement of “fair share” tax contribution.

In relation to the concept of ETR, it should first be noted that ETR is the percentage of income tax expenses indicated in the profit and loss account of an entity in relation to profits reported immediately before income tax expenses. It will be different from the statutory income tax rate in most cases, as in Portugal and many other developed and developing countries the calculation of taxable income differs from the calculation of profits before taxes under accounting rules.

In this regard, there is general agreement that companies should pay their “fair share” of tax. This has been widely advocated and stated on a political level, namely, at the G20, by the highest OECD and EU officials (Commission, 2015; OECD, 2013; Reuters, 2012) and by means of the implementation of various tax transparency initiatives described in the Introduction chapter. The duty to pay one’s “fair share” of tax has been extensively recognised in the academic literature addressing the ethical and CSR perspectives

of income taxation (e.g., Avi-Yonah, 2008; Dowling, 2013) as well as explicitly stated in the literature attempting to measure tax avoidance, tax aggressiveness and tax management (Desai & Dharmapala, 2004, 2008; Laguir et al., 2015; Lanis & Richardson, 2012).

It is also noted that no precise amount can be set to constitute a “fair share” contribution of taxes to society. For this reason, the purpose of the present investigation is not to make such a determination. Instead, we use ETR as an indicator of corporate income tax expense as a “fair share” tax contribution by companies included in the population. In prior research, ETR has been extensively used as a measurement or indicator of tax aggressiveness (Laguir et al., 2015; Lanis & Richardson, 2012; Lin, Tong & Tucker, 2014), tax avoidance (Annuar, Salihu & Obid, 2014; Ylönen & Laine, 2014) and the degree of tax management (Gupta et al., 2014; Huseynov & Klamm, 2012). As a natural indicator of income tax expenses estimated to be incurred for the financial year in question, and in line with the research indicated above, it is taken as a factor of “fair share” contribution of income tax, without any attempt to determine what exact amount would constitute such a contribution.

Table 1 presents the 10 relevant tax disclosure elements (TDE) developed under IAS 12. For the purposes of the income tax charge disclosure index (ITD Index), mandatory and voluntary disclosure elements that are relevant from a CSR perspective were selected.

Table 1

Relevant IAS 12 tax disclosure elements

Ref.	Code	Description
<i>§ 80 (a)</i>	TDE ₁	Current tax expense (income)
<i>§ 80 (b)</i>	TDE ₂	Adjustments recognised in the period for current tax of prior periods
<i>§ 80 (c)</i>	TDE ₃	Amount of deferred tax expense (income) relating to temporary differences
<i>§ 80 (d)</i>	TDE ₄	Amount of deferred tax expense (income) relating to changes in rates
<i>§ 81(a)</i>	TDE ₅	Aggregate current/deferred tax relating to items credited directly to equity
<i>§ 81(c)</i>	TDE ₆	General reconciliation between effective tax expense and statutory tax rate
<i>§ 81(e)</i>	TDE ₇	Disclosure of the tax basis
<i>§ 81(d)</i>	TDE ₈	Explanation of changes in the applicable tax rate(s) compared to the previous period
<i>§ 81(f)</i>	TDE ₉	Temporary differences associated with investments in subsidiaries, branches and associates, and interests in joint arrangements
<i>§ 81(g)</i>	TDE ₁₀	Types of temporary differences and unused tax losses and credits and the amount of deferred tax assets/liabilities recognised in the statement of financial position and the amount of deferred tax income or expense recognised in profit or loss

Source: Adapted from IAS 12

Next, from the CSR perspective, the items proportional tax expense reconciliation, geographical tax expense disclosure, disclosure of tax contingencies, if any, and detailed ETR and

statutory tax reconciliation provided additional explanations in this regard. Therefore, the following items listed in Table 2 are also considered.

Table 2

Additional tax disclosure elements

Reference	Code	Description
IAS 1.117	TDE ₁₁	Explicit disclosure of policies in respect of accounting for income taxes
IAS 12.81(C)	TDE ₁₂	Reconciliation of the statutory and effective tax rates stating statutory and effective rates (as opposed to amounts)
IAS 12.81(C)	TDE ₁₃	Tax reconciliation: details on the differences between the accounting profit and the tax base
IAS 12.80(A)	TDE ₁₄	Disclosure of current tax expense by main geographies
IAS 37.84-37.86	TDE ₁₅	Disclosure of tax provisions and/or tax contingencies

Source: Adapted from IAS 1, IAS 12 and IAS 37

As regards CSR and the ITD Index, Table 3 shows the elements for disclosure in the CSR reports (CSRTDE) of the entities analysed.

Table 3
CSR disclosure elements

Code	Description
CSRTDE ₁	Existence of CSR report
CSRTDE ₂	Note on taxes as a matter of CSR
CSRTDE ₃	Statement of total amount of taxes paid
CSRTDE ₄	Disclosure of paid corporate income taxes
CSRTDE ₅	Disclosure of ETR
CSRTDE ₆	Disclosure of tax provisions and/or tax contingencies
CSRTDE ₇	Disclosure of tax policies
CSRTDE ₈	Disclosure of existence of tax governance model/tax being a board matter
CSRTDE ₉	Commitment to tax transparency
CSRTDE ₁₀	Commitment to tax compliance

Source: Adapted based on the Sustainability Report of Fortum Oyj 2013

To assess the level of reporting, a content analysis framework was developed. The data collected manually from the annual consolidated accounts and CSR reports were codified into pre-defined categories, considering the level of disclosure or the required disclosure of the elements. Thus, a code from '0' to '2' was assigned to each information item, as shown in Table 3.

Table 3
Codes assigned to the data collected

Code	Description
0	Element not disclosed
0.5	Element incompletely/partially disclosed
1	Element fully disclosed
2	Not applicable

The information compliance index for each company can be obtained from the ratio between the total items disclosed by a company and the sum of items that should be disclosed (Lopes, 2014) in European Union, an important effort of harmonization towards the financial reporting comprehensiveness, reliability, relevance, and comparability. This paper seeks to highlight the importance of Information Compliance Indexes (ICI, according to the standard set above.

The first step in this research is to compute the ITD Index, which is done using the following formula:

$$ITD\ Index_i^j = \frac{\sum_{i=1}^n D_i^j}{ITD_i^j} \quad (1)$$

Where:

$ITD\ Index_i^j$ is the ITD Index for company i ;

D_i^j is IAS 12 and additional tax disclosure observed in company i ;

ITD_i^j is total disclosures required and applicable to company i .

The second step is to compute the Total Index, which is done using the following formula:

$$Total\ Index_i^j = \frac{\sum_{i=1}^n D_i^j}{Total_i^j} \quad (2)$$

Where:

$Total\ Index_i^j$ is the Total Index for company i ;

D_i^j is IAS 12, additional and CSR disclosure observed in company i ;

$Total_i^j$ is total relevant disclosures applicable to company i .

The Total Index will be included in the regression model as a dependent variable to illustrate the level of compliance regarding information disclosures in respect of income taxes from the CSR perspective.

Here, it should be noted that these are unweighted indices, which assume that all disclosure items are of the same level of importance to the information users. The use of weighting factors would imply a previous study of the importance attributed by many information users, which is outside the scope of this research.

ETR has been used by various authors as the main or one of the indicators of corporate tax aggressiveness (Lanis & Richardson, 2012; Lin et al., 2014; Laguir et al., 2015), tax avoidance (Ylönen & Laine, 2014; Annuar et al., 2014) and income tax management (Huseynov & Klamm, 2012; Gupta et al., 2014) by corporations. All these cases (tax aggressiveness, avoidance and management) mean that different measures are implemented to minimize a corporation's income tax burden, which is the focus in terms of "fair share" contribution from the CSR perspective.

As regards measuring the entity's corporate income tax as a "fair share" contribution and an element of CSR, this study will use ETR as the ratio between current estimated tax charge and accounting pre-tax profits.

The use of external factors has been tested and, in certain occasions, found to influence the level and quality of disclosure for CSR or income tax purposes (Bonsón & Bednárová, 2015; Lopes, 2014; Michelon et al., 2014; Pereira, 2013; Bouten et al., 2011; Henriques, 2011) and tax aggressiveness (Laguir et al., 2015; Taylor & Richardson, 2013; Lisowsky et al., 2013; Hoi et al., 2013; Huseynov & Klamm, 2012; Hope et al., 2013; Lanis & Richardson, 2012). For the purposes of this study, size is measured as total assets, profitability as return on assets and leverage was calculated as total long-term liabilities divided by total assets. Long-term liabilities were chosen in preference to short-term liabilities because they are usually used as a tool to potentially reduce the ETR of an entity.

The ETR is also used as an independent variable as regards the Total Index as a dependent variable in the particular case of the logistic regression performed in this study.

The multivariate logistic regression analysis is used to test Hypotheses H1 to H3, which represents the method consistently employed to discover any relationships in the previous international and national research (see, for example, Gupta et al., 2014; Lanis & Richardson, 2012; Lin et al., 2014; Lopes, 2015; Pereira, 2013; Silva, 2013; Tomohara et al., 2012). For this purpose, dependent variables were classified as "1" and "0" depending on their values being higher or lower than the median of each year. In addition, the Hosmer-Lemeshow test and goodness-of-fit test were conducted to ascertain how well the model fits the data in the logistic regression or whether the model is correctly specified (Allison, 2013). Omnibus test of goodness coefficients are another means to explore significant differences between blocks of independent explanatory variables or their coefficients in a logistic regression. Both tests were conducted to test the model with regard to the regression.

4 Findings and discussion

Table 4 shows a breakdown for the Total Index by size, profitability and leverage levels, which is useful and may, to a certain extent, anticipate the results of the regression analysis.

As regards size, the data show slightly higher scores for the Total Index for entities whose size is above the median (0.54 median and average for larger companies and 0.50 median and 0.48 average for smaller companies). This is in line with and would confirm Hypothesis H1.2 that there is a positive relationship between the Total Index and size.

No significant differences can be observed as far as profitability is concerned. Thus, no preliminary insights can be drawn as regards Hypothesis H1.3, which states that there is a positive relationship between the Total Index and profitability.

Table 4
Statistics for Total Index by size, profitability and leverage

Range	Period (Number of Observations)	Porte		Lucratividade		Alavancagem	
		Average	Median	Average	Median	Average	Median
Lower than the median (=0)	All period (45)	0,50	0,48	0,52	0,52	0,53	0,54
	2010 (9)	0,44	0,48	0,48	0,48	0,51	0,48
	2011 (9)	0,47	0,48	0,50	0,48	0,51	0,50
	2012 (9)	0,48	0,48	0,52	0,52	0,52	0,54
	2013 (9)	0,51	0,52	0,56	0,54	0,53	0,54
	2014 (9)	0,58	0,52	0,54	0,54	0,59	0,56
Higher than the median (=1)	All period (40)	0,54	0,54	0,52	0,50	0,50	0,51
	2010 (8)	0,54	0,56	0,49	0,53	0,46	0,49
	2011 (8)	0,54	0,53	0,51	0,49	0,49	0,48
	2012 (8)	0,55	0,54	0,52	0,52	0,52	0,52
	2013 (8)	0,55	0,54	0,50	0,49	0,53	0,53
	2014 (8)	0,53	0,53	0,57	0,51	0,52	0,51

Finally, companies with a higher debt score have a higher Total Index (average of 0.53 and median of 0.54) than those with lower leverage levels (average of 0.50 and median of 0.51); however the difference is rather insignificant. Therefore, no conclusions as regards how the level

of leverage influences CSR-related tax disclosure (Hypothesis H3.1) can be drawn here.

In line with the above analysis for the Total Index by size, profitability and leverage, Table 5 shows the general data obtained regarding ETR.

Table 5
Statistics for ETR by size, profitability and leverage

Faixa	Period (Number of observations)	Porte		Lucratividade		Alavancagem	
		Average	Median	Average	Median	Average	Median
Lower than the median (=0)	All period (45)	0,20	0,22	0,19	0,21	0,22	0,24
	2010 (9)	0,23	0,21	0,21	0,23	0,22	0,21
	2011 (9)	0,16	0,22	0,05	0,16	0,13	0,22
	2012 (9)	0,25	0,31	0,19	0,26	0,31	0,30
	2013 (9)	0,21	0,22	0,15	0,13	0,16	0,22
	2014 (9)	0,16	0,19	0,33	0,19	0,30	0,19
Higher than the median (=1)	All period (40)	0,19	0,23	0,21	0,24	0,16	0,20
	2010 (8)	0,21	0,25	0,23	0,23	0,23	0,24
	2011 (8)	0,11	0,18	0,23	0,24	0,14	0,18
	2012 (8)	0,19	0,23	0,25	0,27	0,12	0,17
	2013 (8)	0,09	0,14	0,15	0,19	0,15	0,15
	2014 (8)	0,36	0,22	0,16	0,22	0,19	0,23

The data show that the ETR might not depend on the size of an entity, the median and average ETRs being rather close for both groups of larger and smaller companies (0.20 and 0.19 average ETRs and 0.22 and 0.23 median ETRs in the two groups, respectively). Furthermore, the standard deviation for larger companies is significant, showing that there are bigger differences in ETRs for larger companies. Therefore, these statistics show that ETR is not likely to be dependent on the size of the entity (Hypothesis H2.1).

Next, companies showing lower profitability pay slightly lower tax. Considering that the period under review is a period of economic slow-down and even distress, this relationship could perhaps be explained by the existence of negative ETRs for companies whose profitability is lower than the median and which were showing losses.

Finally, the ETR of companies with higher borrowing is lower than that of those who borrow less (average of 0.16 and median of 0.20 compared to average of 0.22 and median of

0.24 of companies with lower borrowing). This generally confirms the statement that debt capital reduces the ETR through interest deduction for tax purposes. Thus, the statistical data presented also confirm Hypothesis H3.2, which states that there is a negative relationship between the level of leverage and ETR.

The findings of the logistic regression analysis to identify relationships between the Total Index and the independent variables are presented in Table 6. In terms of the goodness-of-fit test (Hosmer and Lemeshow or H.&L. test, which is designed to ascertain how well the data fit the model), the model presents a good fit for the data as the output values do not differ significantly from the observed values (p-value exceeds the minimum 10% significance). The quality of fit of the variables to the model (pseudo R²) is moderate or good, being situated at 37.4% (i.e. within the 20% to 40% range indicating good model fit). The significance of the prediction of the Total Index (model χ^2 , Omnibus test of model coefficients) is situated at 1%.

Table 6

Total Index regression analysis

Variables	Coefficient	Z-stat
ETR	,438	,308
Size	2,642	6,637***
Profitability	-1,109	1,426
Leverage	-4,800	4,590**
Sector 1 (Industry)	-3,109	3,891**
Sector 2 (Financial)	-1,818	3,001*
Sector 3 (Commerce & other)	-2,925	4,704**
Sector 4 (Energy & Gas)	-2,986	3,748*
Sector 5 (Construction)	,565	,166
Constant	1,975	1,821
Model χ^2		
Omnibus test †		27,683***
H. & L. test ‡		6,909
Pseudo R ²		0,374
% classified correctly		70,6
Number of observations		85

Legend: ***, ** and * indicates statistical significance (two-sided) at the 1%, 5% and 10% level, respectively; † relates to chi-square of Omnibus tests of model coefficients; ‡ relates to chi-square of Hosmer and Lemeshow test; § refers to Nagelkerke R²

Therefore, the regression analysis identified the strongest positive relationship (1% significance) between the Total Index and size. Thus, it proves that bigger companies perform better as regards CSR-related tax disclosure, confirming Hypothesis H1.2, which states that there is a positive relationship between CSR-related tax disclosure (the Total Index) and size. The results of the logistic regression analysis are entirely in line with the results of the descriptive analysis.

As regards profitability, no relationship is confirmed by the regression analysis. Consequently, in opposition to Hypothesis H1.3, which expresses that there is a positive relationship between the Total Index and profitability, this is not confirmed by the logistic regression. These results coincide with the results of the descriptive statistical analysis and its relationship to size, profitability and leverage above.

Next, the logistic regression identifies a negative relationship as regards leverage, at a 5% level of significance. These results, together with the descriptive statistical analysis, confirm that companies with more debt have a lower standard of CSR-related income tax reporting. Thus, Hypothesis H3.1 is confirmed, considering the

negative relationship between the level of leverage and the Total Index.

Furthermore, the logistic regression analysis reveals no relationship between the Total Index and the ETR. Thus, the analysis does not confirm Hypothesis H1.1, which suggests that there is a positive relationship between the Total Index and the ETR.

Finally, based on the results provided by the logistic regression, the relationships between the Total Index and the Industry and Commerce & Other sectors present the highest significance levels of the test (5% level of statistical significance), with a negative sign of association. For the purposes of Hypothesis H1.4, it may be also mentioned that only the Construction sector does not present a meaningful association with the Total Index, at least at 10% significance. Overall, a negative association between the Total Index and the sectors is determined, which means that the current results confirm Hypothesis H1.4.

The results of the logistic regression analysis to identify relations between the ETR, the independent factors and the sectors are shown in Table 7.

Table 7

ETR regression analysis

Variáveis	Coefficiente	Estat. Z
ETR	-1,201	2,393
Size	,886	1,265
Profitability	-,596	,091
Leverage	2,051	2,160
Sector 1 (Industry)	1,970	4,126**
Sector 2 (Financial)	3,311	8,627***
Sector 3 (Commerce & other)	2,166	3,344*
Sector 4 (Energy & Gas)	1,950	2,637
Sector 5 (Construction)	-1,692	1,689
Constant	-1,201	2,393
Model χ^2		
Omnibus test †		15,763**
H. & L. test ‡		8,633
Pseudo R ²		0,226
% classified correctly		68,2
Number of observations		85

Legend: ***, ** and * indicates statistical significance (two-sided) at the 1%, 5% and 10% level, respectively; † relates to chi-square of Omnibus tests of model coefficients; ‡ relates to chi-square of Hosmer and Lemeshow test; § refers to Nagelkerke R²

In comparison to the aforementioned Total Index analysis, the model for the logistic regression analysis for the ETR does not demonstrate the same quality of fit, suggesting that the model could be only partially defined.

On the one hand, the model shows good quality of fit under the goodness-of-fit test (Hosmer and Lemeshow test). On the other hand, the p-value indicates a level of significance exceeding 10%, and the quality of fit of the variable factors of the model (pseudo R^2) is reported at 22.6%, i.e. at a level which is considered as ranging between weak and moderate. The model significance for the prediction of disclosure (model χ^2 , Omnibus test of model coefficients) is equally lower in comparison to the model proposed for the Total Index (5%, compared with 1% obtained in the first one).

Additionally, the results of the analysis suggest that there is no relationship between ETR and size, profitability or leverage. Therefore, these results do not confirm Hypotheses H2.1 and H2.2 as well as Hypothesis H3.2, which suggested the existence of a positive relationship between ETR and these explained factors.

As regards the sectors, the results generally show the existence of a positive association between the sectors and the ETR of the companies. The results shown in Table 17 highlight a lower ETR for the Financial sector (at the level of 1%) and the Industry sector (at the level of 5%). Thus, it should be concluded that there is an association between the ETR and the sectors, thereby confirming Hypothesis H3.3.

5 Conclusions, limitations and future research

This paper presents a novelty at the level of national academic research by considering income tax reporting and disclosure as a subject of CSR, and exploring the level of income tax disclosure as a CSR matter at the level of the most influential Portuguese companies.

As a result of this research, it can be concluded that the Portuguese PSI 20 entities

tend to generally comply with the minimum mandatory disclosure requirements as regards income taxation (75% in average terms). In the reconciliation of the tax charge with the statutory income tax rate, most of the companies state the ETR percentage (13 out of 17 companies). Almost all (except one) provide a certain amount of detail when explaining the differences. Only a few, however (4 out of 17), provide disclosure on tax charges geographically, which does not enable any conclusions to be drawn as in the research of Hope, Ma and Thomas (2013) on geographical earnings disclosure and tax avoidance. This leads to the conclusion that the Portuguese companies under analysis do provide basic information that enables some conclusions regarding their tax-related CSR behaviour. It should be noted, however, that tax is not regarded as an issue to be addressed in the CSR reports of these companies: a note on tax or a statement on tax payments is found in the CSR reports of only six companies from the reports of the seventeen companies examined. This is quite different to the views expressed in the academic literature that argues that tax is one of the elements of CSR (Avi-Yonah, 2008; Dowling, 2013). Furthermore, it may also be concluded that the disclosure of information related to income taxes (the ITD and the Total Index) has improved throughout 2010 and 2014, although the improvement is very slow. This is in line with the previous national research on disclosures related to income taxes or deferred taxation (see Carvalho (2008), Fernandes et al. (2013) and Silva (2014)). No definite conclusions can be drawn as regards any trends in the development of the effective income tax payments (the ETR) of the entities studied, as a measure of their CSR in the tax context.

In line with similar existing national and international research (Carvalho (2008), Fernandes et al. (2013) and Silva (2014)), the present study revealed that the level of disclosure of income tax related information (the Total Index) is positively associated with the size of the entities, whereas no association was confirmed

between the level of disclosure and the ETR or profitability. Furthermore, this study did not identify any relationship between the ETR and the size or profitability of the PSI 20 entities in 2010-2014, but a relationship between the ETR and the sectors was established. Finally, it was found that leverage has no impact on the ETR but may be linked to disclosure of information related to income taxes (the Total Index), as it was confirmed that companies with higher leverage scored lower in disclosure of information related to income taxes (the Total Index).

This research was limited to the PSI 20 entities, which includes only a limited number of companies and thus may not be considered as reflecting the national situation representing all Portuguese companies and sectors of the economy, but only Portuguese listed companies, i.e., the Portuguese capital market.

In terms of substantive limitations, the indices were constructed based on specific chosen elements, which may be subject to change in any further research. The CSR reports were also subject to limited analysis, which could be extended. Also, the ETR considered was the current tax charge, which is limited because the so-called cash ETR (the tax payment stated in the cash-flow statement) may be also considered for the purposes of similar research. It is also important to remember that the model for the logistic regression analysis for the ETR does not demonstrate the same quality of fit in comparison to the model proposed for the Total Index, which indicates that the conclusion related to the relationship between the ETR and the sectors must be considered with caution.

As a final point, the research focused on certain specific elements of CSR-related reporting concerning income taxes, such as overall completeness of information (i.e. the indices) and ETR, and it did not elaborate or analyse all elements of CSR-related reporting, such as statements of income tax charges geographically.

This paper contributes to research into the issue of income taxes from the perspective of CSR,

outlining the financial and CSR reporting rules applicable as well as providing an insight into the existing research on the subject. It also examines the financial and CSR reporting by PSI 20 entities within the period from 2010 to 2014 on income taxes as a CSR matter, constructing the income tax reporting index from a financial reporting and CSR perspective (the Total Index) and analysing its relationship with the ETR, size, profitability and leverage. It is the first national research to examine the issue of reporting for income taxes from the CSR perspective.

Considering the limitations already outlined, the research could be repeated by extending, on the one hand, the range of entities as the current research was limited to quite a narrow population and, on the other hand, the variables proposed, especially in the case of research seeking explanatory factors of the ETR, where the quality of fit for the model presented more constraints.

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About the Authors:

1. Julija Cassiano Neves, Master of Accounting, ISCAL, Lisbon/Portugal, E-mail: julika_petkevica@yahoo.co.uk

ORCID

 0000-0003-1004-8211

2. Fábio Henrique Ferreira de Albuquerque, PhD in Accounting, Universidade de Extremadura, Lisbon/Portugal, E-mail: fhalbuquerque@iscal.ipl.pt

ORCID

 0000-0001-8877-9634

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1. Definition of research problem	√	
2. Development of hypotheses or research questions (empirical studies)	√	√
3. Development of theoretical propositions (theoretical work)	√	
4. Theoretical foundation/ Literature review	√	
5. Definition of methodological procedures		√
6. Data collection	√	
7. Statistical analysis		√
8. Analysis and interpretation of data	√	√
9. Critical revision of the manuscript		√
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