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The conservatism as a cultural value that underlies the financial reporting: Empirical evidence from listed companies in European regulated markets

El conservadurismo como valor cultural que subyace a la información financiera: Evidencia empírica de las sociedades cotizadas en los mercados regulados europeos

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Abstract

This paper intends to assess the existence of confirmatory variables of conservatism based on the disclosures made in the financial report. Data were collected from the annual accounts for 2013 and 2014 disclosed by 137 listed entities (non-financial groups) in the European Union (EU) stock indexes: Portuguese Stock Index (PSI)-20, Iberian Index (IBEX)-35, Financial Times Stock Exchange (FTSE)-100, German Stock Index (DAX)-30 e Stockholm Stock Exchange (OMX)-S30. The content analysis was used as a methodology. After applying multiple linear regression models, the findings indicate that the assessment of the conservatism based on relevance is consistent with the associations suggested in the literature. One of the main contributions of this research is the consideration of the impact of culture on financial reporting, namely through the proposal of a new proxy for the measurement of conservatism based on the financial report.

JEL Codes: M40, M41, M49.

Keywords: International accounting harmonization; conservatism; cultural values; financial reporting.

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Resumen

Este artículo pretende evaluar la existencia de variables confirmatorias de conservadurismo basadas en las revelaciones realizadas en el informe financiero. Los datos se recogieron de los informes anuales y de las cuentas de 2013 y 2014 revelados por 137 entidades (grupos no financieros) cotizados en los índices bursátiles de la Unión Europea (UE): Portuguese Stock Index (PSI)-20, Iberian Index (IBEX)-35, Financial Times Stock Exchange (FTSE)-100, German Stock Index (DAX)-30 e Stockholm Stock Exchange (OMX)-S30. El análisis de contenido se utilizó como metodología. Después de aplicar modelos de regresión lineal múltiple, los hallazgos indican que la evaluación del conservadurismo basado en la relevancia es consistente con las asociaciones sugeridas en la literatura. Una de las principales contribuciones de esta investigación es la consideración del impacto de la cultura en la información financiera, a saber, a través de la propuesta de una nueva representación para la medición del conservadurismo basada en el informe financiero.

Códigos JEL: M40, M41, M49.
Palabras clave: Armonización contable internacional; conservadurismo; valores culturales; información financiera.

Introduction

The progressive integration of financial markets has made inevitable the progressive integration of accounting practices and regulations at the international level (Ball, 2006). The debate about the need for accounting harmonization began in the 1960s, with a higher incidence since the 1990s, and continued to the present day (Saudagaran, 2009; Hoarau, 1995).

The advanced stage of the harmonization process in the European Union (EU) in relation to the financial reporting concerns was accentuated, in particular, since the issuance of Regulation (European Commission (EC)) No 1606/2002 of the European Parliament and of the Council of 19 (EPC, 2002) concerning the mandatory adoption of the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) for entities listed and legally subject to consolidated accounts, since January 1, 2005.

At the same time, the widespread adoption of IFRSs, which are considered principle based standards, contrary to rules-based standards issued by the Financial Accounting Standards Board (FASB), reinforces the importance of analyzing the impact of professional judgment on financial reporting by different stakeholders, especially preparers and auditors. Those aspects should not be overlooked either by regulatory or standard-setting bodies in accounting matters, acting locally or internationally. It should be noted that the different interests of the stakeholders, reflected in the financial report, together with divergent cultural patterns, contribute to the existence of divergences that directly influence the international accounting convergence procedure.

In fact, different economic, political, cultural and legal factors originate different accounting systems (Choi and Meek, 2011). From the same point of view, Nobes (2006, p. 44) advocates that: "[...] international comparability may have increased but that large differences are likely to remain." The influence of cultural factors on the financial reporting and its consequent impact on the process of international harmonization has been studied in the international literature, which may justify the existing asymmetries in the financial reporting at the international level (Perera, 1989; Doupnik and Salter, 1995).

It is therefore important to assess the impact of such factors, such as the presence of differences arising from the culture, the comparability of financial reporting at international level, and the harmonization process conducted by the main international bodies in accounting field. The importance attributed to this factor is evident from the extensive literature that has been published since Hofstede (1980), which identified four cultural dimensions that would later be used by Gray (1988) in the development of four accounting values associated with Accounting. The model of Gray (1988) has been supported the research carried out in the area in the last decades (Baydoun and Willett, 1995; Chanchani and Willett, 2004; Doupnik and Riccio, 2006; Tsakumis, 2007).

More specifically, the influence of conservatism as an accounting value, proposed by Gray (1988) in the context of the theory of cultural relevance, has been widely debated in the literature and the subject of numerous replicas. Despite this, the author did not empirically test the proposed model. In this sense, it is important to evaluate the applicability of the classification of accounting values proposed by Gray (1988) to the contemporary accounting context.

This paper proposes to identify a proxy for this value, especially based on the Baydoun and Willett (1995) proposition, which identifies a relation between the Gray's (1988) accounting values and the qualitative characteristics of financial information.

The relevance of the present investigation is therefore based on the importance of assessing the level of conservatism that separates countries in the scope of Accounting through new proxies for this indicator, poorly suggested in the literature, especially from financial report. This issue arises from the fact that the indexes of cultural dimensions based on Hofstede's (1980) model have been criticized over the last years. In fact, despite their importance for the investigation in Accounting, directed to the theme of culture, researchers have recently recognized several limitations of a conceptual and methodological nature. Taking those aspects into consideration, and the proposed objectives, the following research questions were identified:

1. Given the advanced stage of harmonization in the EU, has the culture, specifically conservatism, a relevant role in the financial reporting process? 2. Is the financial report influenced by different firm-level controls and distinguishable by countries?

Taken the points above in mind, and distinctly from the previous literature, mostly based on the theory of cultural dimensions of Hofstede and its respective indexes, the presence of conservatism in this study will be evaluated from the disclosures in the financial report, more specifically through the identification of references to (disclosures on) the qualitative characteristic of relevance. The purpose of this study is to determine the extent to which the verification of the accounting value of conservatism is explained by firm-level controls and countries, as confirmatory variables of the accounting value. Further, and in order to assess whether the proposed proxy is valid, we intend to compare the obtained findings from that one with traditional measures for conservatism in accounting, mostly based on accruals and market-to-book ratios, for instance. This procedure will be better explained in section 3 onwards.

Data collection was based on the annual accounts for 2013 and 2014 disclosed by listed entities (non-financial groups) in the stock market indexes of the European Union (EU): Portuguese Stock Index (PSI)-20, Iberian Index (IBEX)-35, Financial Times Stock Exchange (FTSE)-100, German Stock Index (DAX)-30 and Stockholm Stock Exchange (OMX)-S30. Content analysis was used as methodology. After applying the selection criteria, the final population of this study includes 137 entities.

Framework

This section aims to provide theoretical support to the hypotheses formulated in this study, taking into account the proposed objectives.

The conservatism from country to country (regional characteristics)

A major challenge to international harmonization highlighted in the literature is culture, defined as "[...] the collective programming of the mind which distinguishes the members of one group or society from those of another" (Hofstede, 1984, p. 82). Hofstede's (1980) study of 116,000 questionnaires conducted by psychologists and directed to employees of the International Business Machines Corporation (IBM), a US multinational company operating in 39 countries, culminated in the identification of four cultural dimensions, which would later become milestones in the analysis of the influence of culture in Accounting. These cultural dimensions are defined as follows:

1. individualism versus (vs.) collectivism: it addresses the degree of interdependence between society and its individuals, in an opposition between individualism, in which the social structure is little united, and collectivism, where it is very united;
2. large vs. distance from power: it describes how society deals with social inequalities, and how in societies with a high distance from power each individual accepts his or her position in the hierarchical order, as opposed to those in which there is a small distance from it, in which individuals strive for their equalization;
3. strong vs. weak risk aversion: it addresses the reaction of members of a company regarding risk and uncertainty about the future, adopting a posture of attempting to control them or, conversely, a more passive reaction; and
4. masculinity vs. femininity: it encompasses the social function of the genders in a culture, and in certain societies where the cultural difference between male and female is maximized, prevailing the assertiveness of men and the affection of women, while in other societies this difference is minimized, being men and women assertive and affectionate.

Despite the contribution to scientific research provided by Hofstede (1980), this study has been the subject of a number of criticisms, notably by Gernon and Wallace (1995), McSweeney (2002) and Baskerville (2003). Later, Gray (1988) links Hofstede's (1980) study with Accounting, relating the culture, social values and accounting systems.

From this link, the author proposed four accounting values verified at the level of the accounting subculture, namely (Gray, 1988):

1. professionalism vs. legal control: it describes the dichotomy between, on the one hand, preference for professional judgment and maintenance of professional self-regulation and, on the other hand, compliance with legal requirements and statutory control;
2. uniformity vs. flexibility: it reports the preference for uniformity in the application of accounting policies and the consistency in their use at a temporal level, opposing flexibility, taking into account the specific circumstances of each company. This accounting value also includes the comparability among companies;
3. conservative vs. optimism: it describes the preference for a cautious approach to the

uncertainty of events that may occur in the future, as opposed to an optimistic and risky approach. The highly conservative approach is characteristic of financial information preparers in Western European countries, such as France and Germany, while in the United States and the United Kingdom these preparers are less conservative, for example, in both accounting procedures and asset measurement; and

4. secrecy vs. transparency: it addresses the preference for confidentiality and restraint in disclosing information about the business only to those directly involved in management / financing (low-disclosure), rather than a full disclosure approach. This accounting value is interrelated with the former (conservatism), in that both involve a prudent approach to financial reporting in general.

Following the above linkage, Gray (1988) related the accounting values to the cultural dimensions advocated by Hofstede (1980) by formulating the four hypotheses described below:

H1: the greater the positioning of a country in relation to the cultural dimension of individualism and the lesser in relation to others such as risk aversion and the distance of power, the more likely will be its position in terms of professionalism;

H2: the greater the positioning of a country in relation to the cultural variables of risk aversion and distance from power and the smaller in terms of individualism, the more likely is its positioning in terms of uniformity;

H3: the greater the positioning of a country in relation to the cultural variable of risk aversion and a smaller one in relation to those of individualism and masculinity, the more likely is its position in terms of conservatism; and

H4: the greater the positioning of a country in relation to the cultural variables of risk aversion and distance from power and smaller than those of individualism and masculinity, the more likely is its position in terms of secrecy.

Gray (1988) promotes a hierarchy of values explained above at the level of the accounting subculture, highlighting individualism and risk aversion as of greater importance, followed by the distance of power and, later, as of less importance, masculinity. Then, the author proposed the classification of accounting systems according to cultural areas, with emphasis on the position of the Anglo-Saxon countries (including the United States, the United Kingdom and Australia) with high levels of flexibility and professionalism, as opposed to less developed Latin countries (where Portugal is included), characterized by uniformity and statutory control.

Further, accounting values related to measurement and disclosure practices, with respect to conservatism and secrecy, gave rise to another classification of accounting systems, again opposing the Anglo-Saxon countries and the less developed Latin countries, which exhibit high levels of secrecy and conservatism.

The conservative design, in particular, aims to prevent assets and income from being overvalued and to undervalued liabilities and expenditures (IASC Foundation, 1989).

This conservative approach is characteristic of financial information preparers in Western European countries, such as France and Germany, as opposed to Anglo-Saxon countries such as the United States and the United Kingdom. It is important to notice that this principle of prudential recognition and measurement is also supported by the recent Directive 2013/34 /EU of the European Parliament and the Council of 26 June 2013 (EPC, 2013).

The model of Gray (1988) has even supported the research carried out in the area in the last decades (e.g. Baydoun and Willett, 1995; Chanchani and Willett, 2004; Doupnik and Riccio,

2006; Tsakumis, 2007; Kanagaretnam, Lim and Lobo, 2013; Carvalho, Albuquerque, Texeira Quirós and Justino, 2015).

Recently, Li (2015) associated country-level timely loss recognition and the cost of capital. So, firms domicilied in countries with more conservative financial reporting systems have significantly lower cost of debt and equity capital (Li, 2015).

The conservatism and the qualitative characteristics

Baydoun and Willett (1995) relate the theory of accounting values in the Accounting subculture developed by Gray (1988) with the qualitative characteristics provided in the previous Conceptual Framework (CF) of the FASB. It should be noted that until the work developed by these authors, this relationship was not expressly proposed in the literature on this matter. Nevertheless, and like Gray (1988) in this respect, Baydoun and Willett (1995) did not submit their hypotheses to empirical validation.

The work developed by those authors addresses the problem of the cultural irrelevance caused by the adoption of accounting systems characteristic of Western countries and, consequently, with accounting values differentiated from developing countries. Therefore, Hofstede's Theory of Cultural Dimensions (1980) and its extension promoted by Gray (1988) are relevant in this context.

Baydoun and Willett (1995) identify levels at which accounting information will be more prone to cultural irrelevance. At the lowest level are the fundamental measurements of Accounting (e.g. inventory cost, fixed assets), and are little affected by cultural or social differences. At the top level are the so-called derivative measures, such as the calculation of depreciation, which are seen as specific statistical decisions and as such are more likely to become irrelevant if arbitrarily transferred to other countries. In the last phase, there is the filtering process promoted by the disclosure, which is by definition culturally determined, being at this level that the practices of the western countries can become insignificant for the users of the developing countries.

Baydoun and Willett (1995) establish a relationship between the practical application of these concepts in financial reporting and three of the accounting values defined by Gray (1988), in particular, uniformity, conservatism and secrecy.

Thus, they relate uniformity to comparability and consistency, interrelated concepts, but with distinct relevance to the uniformity of content and presentation of financial reporting. The conservatism, related to the quality of the information disclosed, is associated to the qualitative characteristics of reliability, reliable representation, verifiability and timeliness. Finally, secrecy is related to the amount of information disclosed and its level of disclosure, and thus to the usefulness of decision and accountability.

In spite of the discussions about the qualitative characteristics and their importance in the context of the preparation of the financial report, on the one hand, and its impact and / or importance in the context of international accounting harmonization, on the other hand, few studies have analyzed empirically such underlying issues.

According to Beest, Braam and Boelens (2009), in order to assess the quality of the financial reporting, the use of the fundamental and enhancing qualitative characteristics, as defined in the Exposure Draft of the new Conceptual Framework together developed by IASB and FASB, should be highlighted. Following this understanding, they constructed an index consisting of 21 items as operational measures of the indicated qualitative characteristics.

The methodology applied was the content analysis being the sample consisting of 231 annual reports published by listed companies in the UK, US and German stock markets, thus applying different regulations (IFRS and US GAAP). The findings evidenced the influence exerted by variables such as accounting regulations, legal systems, enforcement environment, size and industry. Additionally, they obtained the validation of the quality measurement tool used, offering a contribution to the scientific community in order to make qualitative characteristics operationally measurable.

Also noteworthy is the recent study developed by Nobes and Stadler (2015) on the influence of qualitative characteristics on accounting decisions by managers, particularly regarding the choice and change of accounting policies under IFRS, specifically IAS 8 Accounting Policies, Changes in Accounting, Estimates and Errors. The authors concluded that the references to qualitative characteristics are positively associated with size and the extent of the transparency of the jurisdiction.

The conservatism and the firm-level controls

According to Basu (1997), conservatism has been reflected in accounting practices for at least five hundred years, although not necessarily perceived from the point of view of culture as proposed by Gray (1988). Conservatism is also identified with the Positive Theory of Accounting, according to which it is possible to explain and predict the practice and choice of accounting policies (Watts and Zimmerman, 1990). Still according to these authors, conservatism means that the assets should be recognized at the lowest value identifiable, conversely to the liabilities. Concerning the timing of recognition, it is asymmetric: income should be deferred as much as possible and the expenses should be anticipated (ibid.).

In this sense, this accounting value is reflected in the financial report by certain attributes of the company, such as size, indebtedness and profitability. Thus, the political costs (e.g. litigation) are commensurate with size and the greater control to which they are attached by government authorities (e.g. tax regulation), which leads to the choice of more conservative accounting policies (ibid.).

However, the recent trend in literature in this area points out into the opposite direction. Khan and Watts (2009) argue that the internationalization of larger entities, present in multiple jurisdictions, subject to divergent tax rules and rates, enables them to minimize taxes paid by relocating profits to jurisdictions where taxation is significantly reduced. It is precisely this minimization of the present value of tax liabilities that makes possible to reduce the demand for accounting conservatism. Thus, ceteris paribus, the larger the entity size the smaller the conservative levels displayed (Callen, Segal and Hope, 2010).

With regard to indebtedness, Ahmed, Billings, Morton and Stanford-Harris (2002) and Zhang (2008) argue that higher levels of accounting conservatism evidenced by entities are directly related to lower levels of indebtedness. The presence of conservatism in financial reporting contributes to the protection of creditors' interests by mitigating agency costs (bondholder-shareholder conflicts) and the payment of dividends (Ahmed et al., 2002; Billett, King and Mauer, 2007; Khan and Watts, 2009). In addition, the need to use external financing and the proliferation of the use of fair value in accounting regulations lead entities to shape their financial information. Thus, in order to satisfy such interests, they opt for the application of more conservative accounting methods (Beatty et al., 2008).

In the context of another company attribute, the level of profitability, Ahmed and Duellman

(2011) conclude that the entities that adopt conservatism in financial reporting significantly present higher levels of profitability in the future, from the obtained cash flows and gross margins, compared to non-conservative firms. In addition, the authors argue that, in line with Watts (2003) and Ball and Shivakumar (2005), the conservatism contributes to the minimization of agency problems associated with managers' investment decisions. Nevertheless, the meaning of this relationship is not peaceful. Chandra (2011) argues that the high levels of conservatism exhibited by such firms are primarily a result of reduced operating cash flows (high investment in Research & Development) and a further increase in profits from lower levels of litigation risks. Francis and Martin (2010) identify a positive association between timely recognition of economic losses in profits and the achievement of profitable investments, measured for example through post-acquisition operating performance. They also state that such relationship is greater in the case of entities that show ex-ante agency costs. However, according to Roychowdhury (2010) the scientific evidence supporting the establishment of this causal relationship is insufficient.

In addition, other factors are listed in literature as justifications for the connections before-mentioned: the life cycle stage of the company and the asymmetry of information among investors.

In the first case, it is found that more indebted entities are usually more mature firms with higher taxable profits, which increases the demand for conservatism (Khan and Watts, 2009). As for the second, the results are divergent. If, on the one hand, the presence of conservatism in financial reporting reduces information asymmetry by facilitating the firm's indebtedness capacity (Wittenberg-Moerman, 2008; Chi et al. 2009; Donovan et al., 2015), on the other hand, the opposite is also observed (LaFond and Watts, 2008; Khan and Watts, 2009).

The next section presents the hypotheses and methodological lines that support the empirical study developed in this paper.

Hypotheses and methodology

This section is segmented in two parts: the first one will expose the research hypotheses proposed for the study and the second will present the methodological guidelines, namely the variables used, population and statistical techniques to be applied.

Hypotheses

Gray's (1988) suggestion about the existence of a connection between cultural areas and patterns associated with accounting systems is the supporting argument of the cultural relevance theory of accounting, later advocated by other authors (e.g. Baydoun and Willett, 1995).

According to this theory, each culture conceives its own accounting system that influences and determines the form of elaboration of the financial report, which can be observed through the use of qualitative characteristics (ibid.).

Schultz and Lopez (2001) and Doupnik and Richter (2004), in agreement with Gray's (1988) model, argue that culture, specifically expressed from accounting values, exert influence over the choices made in the financial reporting.

Conservatism is especially highlighted in those contexts, which is negatively expressed from the use of relevance as a fundamental qualitative characteristic of financial information: the higher is the level of conservatism, the lower is the concerns on the relevance of financial information.

The literature suggests the existence of support for the association between, on the one hand, firm-level controls, such as size (Khan and Watts, 2009; Calen et al., 2010); indebtedness (Watts and Zimmerman, 1990; Zhang, 2008) and profitability (Ahmed and Duellman, 2011; Chandra, 2011) and, on the other hand, conservatism.

In this sense, the following general hypothesis was conceived, from which derive the other proposed operational hypotheses related to it:

H1: Conservatism, having the qualitative characteristic of relevance as proxy in opposite relationship, is related to regional characteristics and firm-level controls.

Conservatism as defined above is fundamentally based on Gray (1988) and the further development proposed by Baydoun and Willett (1995). In this sense, it is expressed by the selection of measurement criteria and judgments and estimates based on the most cautious options or, in other words, less risk aversion.

Doupnik and Riccio (2006), aligned with those assumptions, concluded that the choice of measurement practices is influenced by countries' level of conservatism. In terms of this accounting value (conservatism), the Latin countries are included in the group of countries with the highest levels of conservatism (from the less to the more developed ones), followed by the Germanic, Nordic and Anglo-Saxon countries.

In this way, and taking into account the previous elements, the following operational hypothesis was formulated:

H1.1: In line with the classification attributed by Gray (1988), the countries included in the classification of less developed Latin countries, more developed Latin countries, German countries, Nordic and Anglo-Saxon countries have, decreasingly in this order, different levels of conservatism.

On the other hand, the association between size and conservatism level was identified in the opposite direction by Watts and Zimmerman (1990) because of the linearity between the political costs / statutory control and the size of companies. Khan and Watts (2009) also argue that there is a negative association between the size of the entities and the level of conservatism, as larger companies have lower levels of information asymmetry and uncertainty. This relationship is due to the fact that these types of companies have higher maturity levels and a richer information context, expressed, for example, by the degree of monitoring of financial analysts. This association is confirmed, for instance, by Calen et al. (2010).

In the context of indebtedness, Lara, Osma and Penalva (2016), in line with Watts (2003) and Watts and Zimmerman (1990), argue that conservatism emerges as an efficient instrument in resolving disputes between creditors and shareholders, caused mainly by the fact that creditors have information and asymmetric returns. In this way, and since they support the risk of downside risk, the adoption of conservative accounting policies assures them the fulfillment of the assumed obligations, since it implies the timely recognition of losses in both results and net assets. In the same vein, Ball, Robin and Sadka (2008) point out that accounting conservatism not only prevents expropriation but also allows creditors to be protected by giving them decision-making power in the case of loss-making companies. In fact, the literature converges towards the existence of a negative association between the level of conservatism and the level of indebtedness or the cost of debt (Ahmed et al., 2002; Wittenberg-Moerman, 2008; Zhang, 2008).

Likewise, the association between profitability and conservatism is negative insofar as the application of conservative accounting policies reduces both the results and the net assets,

reducing the mentioned firm-level controls (Watts and Zimmerman, 1990; Ahmed and Duellman, 2011; Chandra, 2011). Notwithstanding the existence of evidence in this sense, some authors have evaluated this relationship as a positive sign, since the timely recognition of losses in results reduces the probability of overestimation of the latter and the assets, preventing managers from investing in projects with negative returns. Further, this makes possible to adopt corrective management measures to minimize losses (Duellman, 2006; Francis and Martin, 2010).

Therefore, the following hypothesis has been defined:

H1.2: A negative association between conservatism and size or the level of indebtedness is identified as well as an association of indeterminate sign between conservatism and profitability.

The next subsection will present the general methodology to be followed in order to test the hypotheses formulated above.

Methodology

In order to test the hypothesis formulated in the previous subsection, the regional characteristics and the firm-level controls were identified as independent variables.

The former will take into account the country of where the entities included in this study are listed, which include Portugal, Spain, Germany, United Kingdom and Sweden. For the firm-level controls, in turn, several elements based on consolidated accounts were used as proxies of size, indebtedness and profitability. Thus, for the dimension, we used the total assets. In terms of profitability, the return on assets ratio (net profit for the period over the total assets) was used, and finally, for indebtedness, the debt ratio (total liability over total assets).

The independent variables and their notation used in this investigation for the firm-level controls are shown in Table 1.

Table 1
Independent variables: firm-level controls.

Firm-level controls	Independent variable (proxy)	Notation
Size	Total assets	SIZE
Profitability	Net profit for the period over total assets	PROF
Indebtedness	Total liabilities over total assets	IND

Source: Own elaboration.

It is important to notice that, in order to ensure comparability of the data collected, the conversion of the currencies of presentation of the financial information analysed (British pound, US dollar and Swedish krona) were converted into euros, based on daily reference exchange rates provided by Banco de Portugal.

The conservatism (as the dependent variable of this study) will be assessed according to the references of relevance as a qualitative characteristic in the financial reporting (RELEV), in negative relationship, aligned with Baydoun and Willett's (1995) proposal for the association between the qualitative characteristics and the cultural values of Gray (1988).

In practical terms, within the process of collecting data about the qualitative characteristics, a matrix was built setting out the following elements: in the rows, the items contained in the financial statements' notes, in accordance with the disclosures established in IFRS and formats usually identified in financial reports; in the columns, the relevance mentioned as a qualitative

characteristic. In this sense, we assigned the value '1' when that qualitative characteristics is disclosed and '0' otherwise.

In order to construct an objective and comparable measure as long as possible, we developed an index relative to the level of qualitative characteristic disclosure of relevance. The calculation method is observable in the following equation:

Where number of disclosures, by entity, of the qualitative characteristic of relevance; n = total of possible disclosures for this qualitative characteristic in the financial reporting.

As a novelty proposed in this study, this first proxy underlies the assumption established in the hypothesis of this paper. In fact, and according to several authors, culture introduces asymmetries in international financial reporting and is one of the main obstacles to full harmonisation (see Perera, 1989; Gray, 1988; Doupnik and Salter, 1995).

The association between the accounting values and the dissemination of qualitative characteristics was first proposed by Baydoun and Willett (1995) based on the theory of the cultural relevance of accounting. Nevertheless, literature has neglected the empirical analysis of this relationship. According to these authors, conservatism is pertinent to assess the quality of the information disclosed, in articulation with relevance as a qualitative characteristic.

In this field, Fah (2008) theorises that accountants who follow conservative values such as tradition, compliance and security, as defined by Schwartz's (1992), are more likely to assign greater importance to the need for less relevant measurement methods, for instance, the cost model. Conversely, accountants motivated by values associated with openness to change, such as stimulation and self-direction, will tend to be more willing to override reliability in order to provide relevant, yet more volatile, market information (ibid.). In this sense, the preference for using fair value method fits the latter motivational values (IFRS Foundation, 2010). In another context, given the risk aversion that characterises conservatism, when managers change accounting policies (which happens rarely), they do so mainly for reasons of comparability (Nobes and Stadler, 2015), which is expressed by the literature in negative relationship with relevance.

Considering the elements gathered from the authors before mentioned, conservatism is negatively associated with relevance. Implicitly, Gray (1988) also proposed a negative relationship between conservatism and relevance, given the risk aversion that underlies that accounting value.

Therefore, to sum up, relevance is defined as the cultural value opposite to conservatism, associated with less risk aversion or capacity to take the risk, because the greater the importance attributed to this qualitative characteristic, the lower the level of conservatism of the entities.

In order to assess the validity of the construct for conservatism before mentioned (based on the relevance), considering its novelty, two further dependent variables will be analysed. Simultaneously, three models of multiple linear regression will be performed including the three proxies for conservatism proposed in this paper. In each of the models proposed, one of these proxies will be defined as the dependent variable, while the further will be included as independent variables, in order to assess, one at a time, the confirmatory capacity of the dependent variable under analysis.

The assessment of conservatism will be performed, in this sense, through three distinct proxies. The first one, already presented, is the relevance as a qualitative characteristic (in negative relationship). The other two variables have been frequently used in the literature on conservatism, and object of numerous researches in this field.

The second variable proposed is the market-to-book ratio (MTB). According to Roychowdhury and Watts (2007), conservatism leads to an underestimation of the book value, through the adoption of more conservative accounting policies. In this sense, the market value of net assets is potentially higher than the book value in the most conservative companies, expressing a positive relationship between this ratio and conservatism.

Finally, the third variable (ACCRUAL) is based on Basu's model (1977), evidencing the timing of the recognition of losses as an indicator of the speed with which each adverse economic event is reflected both in the income statement and the statement of financial position (Ball and Shivakumar, 2005; Moreira, Colauto and Amaral, 2010). According to this model, the accruals are often measured through the difference between an indicator from the income statement (operating results) and the cash from operating activities. Positive accruals often indicate lower levels of conservatism, therefore indicating a negative relationship between the two.

The methodology used in the data collection was the analysis of the content of the annual reports and consolidated accounts of the non-financial activity sectors listed on the European financial markets indexes, namely PSI-20, IBEX-35, FTSE-100, DAX-30 and OMX-S30 relating respectively to the Lisbon, Madrid, London, Frankfurt and Stockholm stock exchanges. After applying the exclusion criteria disclosed in Table 2, the population of this research was made up of 137 European non-financial groups.

The selection of entities included in European country indexes was due to the fact that these entities published accounts since the advent of Regulation No 1606/2002 of the European Parliament and of the Council of 19 July in accordance with the IAS / IFRS standard, which is fundamental to solving the research problem mentioned in the introduction of this study. In addition, the inclusion of different countries of the same continent, linked by the EU by Regulations and Directives of general application by the Member States, allows for a more rigorous testing of the existence of different accounting values even in a context of a common regulatory environment.

Table 2
Composition of the population by index.

	Index				
	PSI-20	IBEX-35	FTSE-100	DAX-30	OMX-S30
Initial population	18	35	101	30	29
Number of excluded entities	4	12	45	7	8
i) Activity sector (financial, insurance)	3	9	19	5	6
ii) Reporting date divergence	-	-	11	-	-
Exclusion iii) Accounting standards divergence	-	-	1	2	-
criteria iv) Cultural areas of the originating countries	-	3	14	-	2
v) Lack of comparability of financial reporting	1	-	-	-	-
Number of entities included in the study (final population)	14	23	56	23	21

Source: Own elaboration

The study period comprises the accounting periods ending on December 31, 2013 and 2014, being the reference period for the selection of entities with securities admitted to trading and included in the indexes previously referred to as of December 31, 2014.

Then it results in the analysis of two consolidated reports and accounts by each entity included in the study population. In order to ensure comparability of the information, the translated version of the English language of the financial reports was used, which is not available to a minority of the entities included in the PSI-20 and OMX-S30 indexes.

The next section will present the findings obtained from this research.

Findings

As discussed in the previous section, the results of this paper will be presented through three multiple linear regression models, considering in each one a distinct proxy for conservatism as a dependent variable and the two remaining proxies as independent variables in this model, and so on. As common elements, these models use the countries and the firm-level controls as independent variables. The purpose of this procedure is to evaluate the explanatory factors significantly related to the accounting value object of this study (conservatism) and, more specifically, due to the novelty regarding this dependent variable, we intend to assess if relevance could be used as a good proxy for conservatism.

Data were checked for (normality of) residual assumptions, as well as multicollinearity to make sure that the assumptions for regression were met. Durbin-Watson test indicated values close to 2 within the summary of each model. Then it could be predictably assumed the independence of errors. Further, multicollinearity test was performed using tolerance and the variance inflation factor (VIF) - values greater than 10 and tolerance-values smaller than .10 may indicate multicollinearity, which did not happen. Therefore, there were no signs of multicollinearity in any of the regression models.

Table 3 identifies descriptive statistics regarding the proposed variables.

No significant differences over the years can be seen from the table above. Nonetheless, important divergences in average or median terms is observed through the countries represented by indexes, namely:

• MTB ratio with higher levels in OMX-S30, DAX-30 and IBEX-35 (with similar levels), PSI-20 and FTSE-100, respectively;

• ACCRUAL with lower levels in DAX-30 and FTSE-100, IBEX-35, OMX-S30 and PSI-20 (with similar levels), respectively;

• RELEV with higher levels in OMX-S30, FTSE-100 and PSI-20 (with similar levels), DAX-30 and IBEX-35, respectively;

• SIZE with higher levels in DAX-30, IBEX-35 and FTSE-100 (with similar levels), OMX-S30 and PSI-20, respectively;

• PROF with higher levels in OMX-S30 and FTSE-100 (with similar levels), DAX-30, IBEX-35 and PSI-20 (with similar levels), respectively; and

• IND with higher levels in IBEX-35 and PSI-20 (with similar levels), DAX-30, OMX-S30 and FTSE-100 (with similar levels), respectively.

To sum up, countries with lower levels of ACCRUAL present a higher level of assets (SIZE). The more profitable (PROF) countries have the lower level of indebtedness (IND). No other relationships could be directly established from the ranking above.

Correlation matrix, disclosed in Table 4, indicates a negative relationship between SIZE and ACCRUAL with the highest coefficient. Further, MTB (negative) and SIZE (positive) are also associated with RELEV. MTB and RELEV are oppositely related, as the evidence provided by the descriptive statistics presented above. Conversely, IND is only associated with PRO, in a positive way. On the other hand, PROF has precisely the opposite signs seen for SIZE, and is also negative related with RELEV.

Table 3
Descriptive statistics.

		PSI-20			IBEX-35			FTSE-100			DAX-30			OMX-S30		
		Mean	Median	Std. Error	Mean	Median	Std. Error	Mean	Median	Std. Error	Mean	Median	Std. Error	Mean	Median	Std. Error
MTB	2013	1.78	1.46	1.35	2.30	1.79	1.84	0.52	0.24	0.94	2.31	2.13	1.34	3.03	2.69	2.16
	2014	1.61	1.10	1.18	2.32	1.76	1.87	0.44	0.26	0.72	2.21	1.96	1.15	3.32	2.77	2.26
ACCRUAL [a]	2013	-0.38	-0.13	0.71	-1.18	-0.63	1.33	-1.06	-0.31	2.35	-2.45	-1.14	3.45	-0.34	-0.29	0.56
	2014	-0.37	-0.21	0.54	-1.02	-0.26	2.56	-2.34	-0.33	7.50	-2.72	-0.92	4.51	-0.56	-0.22	1.97
RELEV	2013	10.2%	11.1%	4.7%	5.6%	4.4%	4.7%	10.2%	11.1%	4.2%	8.6%	6.7%	4.6%	13.1%	13.3%	5.7%
	2014	10.7%	11.1%	4.6%	5.4%	4.4%	4.4%	11.6%	12.2%	4.4%	8.9%	8.9%	4.2%	13.1%	11.1%	5.7%
SIZE [a]	2013	7.40	4.02	10.74	25.67	13.76	29.97	23.37	9.53	50.62	63.96	32.75	74.33	11.25	7.42	10.50
	2014	7.54	4.03	10.97	25.48	14.23	30.12	25.18	11.20	50.68	69.81	36.05	80.24	11.75	8.69	10.41
PROF	2013	3.8%	2.7%	2.7%	3.4%	3.1%	5.0%	6.8%	6.4%	6.0%	4.2%	4.4%	4.2%	7.5%	5.0%	9.4%
	2014	3.1%	2.7%	2.2%	3.3%	2.9%	6.0%	5.7%	5.6%	6.1%	6.6%	3.8%	11.6%	4.9%	5.0%	8.4%
IND	2013	69%	71%	12%	71%	76%	19%	58%	57%	20%	62%	59%	16%	62%	62%	16%
	2014	69%	69%	12%	71%	75%	18%	60%	58%	21%	67%	67%	18%	62%	59%	17%

a Billions of euros
Source: Own elaboration

Table 4
 Correlation matrix.

	RELEV	MTB	ACCRUAL	SIZE	PRO	IND
RELEV	1					
MTB	-.256***	1				
ACCRUAL	-.049	.070	1			
SIZE	.323***	-.102*	-.422***	1		
PROF	-.151**	.061	.157***	-.169***	1	
IND	.048	-.014	-.025	.016	.363***	1

Source: Own elaboration

The first model, described in Table 5, which uses MTB as the dependent variable, presents the highest value for R2. In the light of the literature on the subject, the MTB is all the more elevated the greater the conservatism, since the aforementioned value would lead to the adoption of more conservative accounting policies, leading to lower capital (net assets). The market would be responsible for assigning a higher value to such companies, as opposed to less conservative ones, for which the book values of the assets would tend to follow the market value of such entities.

From the obtained results, it is verified that the SIZE (negative relation) does not present as a statistically significant variable of the model, unlike REN (positive relation) and IND (negative relation). Thus, firm-level controls generally present the proposed signs of relationship, despite the statistical significance of SIZE.

As far as RELEV is concerned, the association is significant and negative, which was expected insofar as that variable is opposed to the indication of conservatism, contrary to what happens with the dependent variable under analysis. For the ACCRUAL variable, however, no significant relationships were identified, although the coefficient signal was in line with the hypotheses proposed, as the negative ACCRUAL is identified as being more conservative.

Table 5
MTB as the dependent variable.

	Coefficients				
	Unstandardised		Standardised		
	B	Std. Error	Beta	T	Sig.
(Constant)	2.695	1.458		1.849	.066
SIZE	-.118	.092	-.080	-1.284	.200
PROF	.032	.016	.113	2.019	.044
IND	-.004	.002	-.103	-1.930	.055
RELEV	-.050	.022	-.134	-2.335	.020
ACCRUAL	-7.497E-09	.000	-.016	-.286	.775
PSI-20	1.474	.353	.228	4.179	.000
IBEX-35	2.137	.287	.408	7.458	.000
DAX-30	2.370	.292	.453	8.121	.000
OMX-S30	2.648	.304	.488	8.705	.000

R	R^2	R^2 adjusted	Std. Error
.617	.380	.359	1.5692

	Sum of squares	gl	Mean Square	F	Sig.
Regression	399.102	9	44.345	18.008	.000
Residual	650.086	264	2.462		
Total	1049.189	273			

Source: Own elaboration

The variables identifying the regional characteristics are generally significant, with significant differences in the value of the market capitalization underlying the markets in which such entities operate. It should be noted the increasing order of the coefficient values that are presented for such variables, in the sense of defining entities quoted in markets characteristically more for the less conservative, in this sequence: PSI-20, IBEX-35, DAX-30, OMX -30. Thus, considering the dependent variable (MTB), the positive relation with the regional characteristics should be analyzed by comparing the coefficients obtained for the independent variables that identify the same concept.

The second model (Table 6), with the smaller R^2, presents the ACCRUAL as dependent variable.

Table 6
ACCRUAL as the dependent variable.

	Coefficients				
	Unstandardised			Standardised	
	B	Std. Error	Beta	T	Sig.
(Constant)	19561480.610	3225815.663		6.064	.000
SIZE	-1391541.441	197916.487	-.453	-7.031	.000
PROF	88450.670	37644.995	.147	2.350	.020
IND	-6419.984	4505.405	-.086	-1.425	.155
RELEV	126845.456	50410.263	.161	2.516	.012
MTB	-41293.525	144423.223	-.020	-.286	.775
PSI-20	35804.166	854786.187	.003	.042	.967
IBEX-35	1388426.437	734974.158	.127	1.889	.060
DAX-30	533366.319	765081.437	.049	.697	.486
OMX-S30	1384517.331	805464.066	.122	1.719	.087
	R	R^2	R^2 adjusted	Std. Error	
	.467	.218	.191	3682898.5784	

	Sum of squares	gl	Mean Square	F	Sig.
Regression	998873907499264.000	9	110985989722140.000	8.183	.000
Residual	3580827871932900.000	264	13563741939139.800		
Total	4579701779432170.000	273			

Source: Own elaboration

In the light of the model above, the same signs identified in the previous model are verified for the firm-level controls, although only SIZE and PROF are significant. It should be noted, however, that the expected relations were precisely opposite to those verified, insofar as conservatism is identified with the predominance of negative accruals.

Also, the RELEV is significant, and with a positive sign, consistently with the propositions previously suggested, in that the RELEV is presented as a variable that identifies a greater opposition to conservatism.

Regarding the variables related to regional characteristics, only the IBEX-35 and OMX-S30 are statistically significant (at a level of 10%), with a positive relation signal in both cases. This hinders a more consistent analysis of the relationship between countries and conservatism.

Finally, Table 7 shows the RELEV as a dependent variable. It should be noted that this variable is identified as opposed to conservatism as a cultural value within the subculture of Accounting, in line with Baydoun and Willett (1995).

Table 7
RELEV as the dependent variable.

	Coefficients				
	Unstandardised		Standardised		
	B	Std. Error	Beta	t	Sig.
(Constant)	-7.081	4.113		-1.722	.086
SIZE	1.100	.250	.282	4.401	.000
PROF	-.071	.042	-.093	-1.714	.048
IND	1.105	.564	.106	1.958	.051
ACCRUAL	1.785E-07	.000	.140	2.451	.015
MTB	-.439	.170	-.165	-2.578	.010
PSI-20	-1.502	1.028	-.087	-1.461	.145
IBEX-35	-3.460	.945	-.240	-3.662	.000
DAX-30	-1.654	.889	-.119	-1.861	.044
OMX-S30	2.353	.897	.169	2.624	.009
	R	R^2	R^2 adjusted		Std. Error
	.551	.303	.279		4.4244%
	Sum of squares	gl	Mean Square	F	Sig.
Regression	2249.194	9	249.910	12.766	.000
Residual	5167.964	264	19.576		
Total	7417.158	273			

Source: Own elaboration

Thus, in relation to firm-level controls, there are statistically significant associations with the three variables under analysis, with SIZE and IND showing a positive sign, in opposition to PROF. Such indications do not depart from the initial propositions.

The RELEV is also significantly related to both the ACCRUAL variable and the MTB variable, which were analyzed as a dependent variable in the previous models. In the first case, the signal is positive, indicating that less conservative entities, or in other words, that "value relevance", have higher levels of positive accruals. In the second, the relationship is also aligned, since the entities with lower MTB are also less conservative.

Finally, for the countries, only for PSI-20 it was not possible to identify a statistically significant association. As far as the other indexes are concerned, the levels of significance are significant, while the coefficients generally follow the propositions presented in the previous section, regarding the levels of conservatism of the different countries. This exact results confirm the H1.1, in agreement with Doupnik and Riccio (2006).

The results obtained after the analysis of the different regression models proposed indicate that the conservative valuation, both from the market-to-book ratio and from the relevance as a qualitative characteristic, is more consistent with the associations suggested by the literature.

Specifically, is in the model where RELEV figures as a dependent variable, that we corroborate, more consistently, in respect to the SIZE, that the larger entities tend to adopt less conservative accounting practices, justified by their lower levels of information asymmetry and uncertainty, in line with the Positive Theory of Accounting (Watts and Zimmerman, 1990; Khan and Watts, 2009; Callen et al., 2010). In the same line, concerning the IND and as predicted in H1.2, we attested the positive (negative) effect that the presence of conservatism (relevance) in financial reporting can have in minimize (maximize) the agency costs (Wittenberg-Moerman, 2008; Zang, 2008; Lara et al., 2016). As for the PROF, and inversely to the undetermined association predicted in H1.2, our results allow us to join the literature that connects conservatism and higher future profitability levels (e.g. Duellman, 2011; Chandra, 2011).

Interestingly, the model that uses the accruals as reference proxy showed more contradictory results.

The last section is dedicated to the presentation of the main conclusions obtained from the findings previously disclosed.

Conclusions

Assessing the relevance of factors such as culture, in the context of professional judgment, proves to be of interest to the various users of Accounting. These elements evidenced to be obstacles to the desired comparability of financial reporting, given the relevant role that this theme continues to play in financial reporting, even though the advanced stage of harmonization that we experience nowadays in the EU.

Concerning the second research question proposed and in the light of these models, firm-level controls such as size, profitability and indebtedness explain conservatism, in the sense suggested by the literature (except for profitability where a positive relationship was obtained), distinguishing this value according to the countries under analysis.

As a novelty of this study, the adoption of Baydoun and Willett's (1995) propositions regarding the relation between the accounting values of Gray (1988) and the qualitative characteristics of the financial information is highlighted. The theoretical framework has not been subjected, so far as it is known, to empirical validation by its authors or subsequent researchers.

Thus, the contributions of this research include consideration of the impact of culture on financial reporting. At the same time, alternatives to the models proposed by Gray (1988) and Hofstede's (1980) indexes, the main empirical reference in this field, represent an element still little explored in the literature. Thus, the proposal of the relevance, considered as a new proxy for the measurement of conservatism based on evidence of financial reporting, distinct from those previously mentioned, constitutes a not inconsiderable contribution to the investigation of the effects of culture on Accounting.

As limitations of this study, it should be noted that the identification of a qualitative characteristic for the different groupings due to their mention in the financial report may not adequately express the relevance that each grouping confers to such attributes of the financial information. However, the absence of studies that use indicators of measurable accounting values through financial reporting, distinct from Hofstede's (1980) indexes, and as proposed in this research, also presents a restriction. Thus, only the continuity of studies in the field of culture and qualitative characteristics, using new proxies to identify accounting values, can fill the gaps mentioned above.

Further, this research uses data from 2013 and 2014, which means that it does not comprise the latest ones put available by companies. Nevertheless, we believe that, given the nature of this study, and particularly the source for the main dependent variable assessed (notes to the financial statement), the latest data would not lead to different conclusions. This understanding is based on the evidence from the literature regarding the relative stability over the years of the information disclosed on the notes within the same set of accounting principles.

As future prospects, it is suggested to widen the population to unlisted entities, namely SMEs, relative to the accounting value of secrecy (e.g. Zarzeski, 1996). The most recent changes in the legal and economic environment of the EU in which the companies of the different countries analyzed in this study act may also justify the need to revise the framework proposed by Gray (1988), as well as the identification of new accounting values.

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