# AUDIT COMMITTEE, EXTERNAL AUDIT AND ACCOUNTING CONSERVATISM: DOES COMPANY'S GROWTH MATTER?

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## Abstract

The objective of this analysis is to examine the joint effect of the audit committee and external audit on conservatism accounting and how a company's rate of growth influences these relationships. The sample used in this study comprises all non-financial listed Portuguese firms from 2005 to 2017. A fixed-effects regression is performed to examine the association between the audit committee and external audit and conservatism accounting and how the company's rate of growth influences these relationships. Using an accruals-based proxy to compute accounting conservatism, this study indicates that companies audited by Big 4 audit firms report more conservative accounting than firms audited by non-Big 4 audit firms and that audit committee and external auditors together appear to increase accounting conservatism. Additionally, the findings suggest that the degree of conservatism reduction related to more growth is diminished when the companies are examined by a Big 4 auditor and the board of directors have an audit committee. The findings based on this study offer valuable data to investors and regulators in assessing the effect of the audit committee and external audit on the quality of earnings.

**Keywords:** Audit Committee, External Audit, Conservatism Accounting, Growth Opportunities

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## 1. INTRODUCTION

Accounting earnings are considered an important indicator to stakeholders. The independent certification of the financial statements is an important element to guarantee the quality of financial reporting. Agency theory points out that reliable financial reporting decreases the information asymmetry between executives and shareholders, rises stakeholder trust, increases the share value, and thus reduces the cost for firms to obtain new stock (Jensen & Meckling, 1976). The audit committees and external auditors are important mechanisms to ensure the regularity of the financial reporting process (Zalata, Tauringana, & Tingbani, 2018). Prior literature finds that audit quality and

audit committee increase earnings quality (Becker, DeFond, Jiambalvo, & Subramanyam, 1998; Francis, Michas, & Seavey, 2013; Zalata et al., 2018).

According to Jensen and Meckling (1976), the auditing function "serve[s] to more closely identify the manager's interests with those of the outside equity holders" (p. 323). Audit committees play an important role as an internal monitoring device. Further, audit committees are also important to guarantee an appropriate relationship exists between the auditor and the firm whose financial statements are being audited. Therefore, external auditors and audit committees are fundamental governance mechanisms that help to monitor managers, reduce information asymmetry, and prevent them from engaging in opportunistic behaviour. Accordingly, auditors may have a role to act in defining the proper degree of conservatism in a client's financial reporting.

Because large auditing firms (big audit firms) devote more resources to training, their audit services are perceived as more effective (Francis & Krishnan, 1999). Big audit companies have motivations to provide high-quality audits since they have a reputation to protect. Large audit firms have greater lawsuit expenses than small auditors, too. Mistaken opinions or failure to find violations lead to large auditors experiencing major harm to their brand name and great lawsuit expenses if litigated (Becker et al., 1998; DeAngelo, 1981; Francis & Krishnan, 1999). Extant literature indicates that big audit firms are more probable to identify earnings management since they have more resources and face more reputation risks (Becker et al., 1998; Francis, Maydew, & Sparks, 1999). Empirical studies indicate that higher-quality auditors decrease earnings management (Becker et al., 1998; Krishnan, 2003; Gul, Tsui, & Dhaliwal, 2006). Previous studies also indicate that the auditors' concerns about future status and lawsuit expenses incentive them to favour more conservative (or income-decreasing) accounting choices and to supervisor income-increasing accounting adoptions more attentively (Chung, Firth, & Kim, 2003; DeFond, Lim, & Zang, 2012; Kim, Chung, & Firth, 2003).

Accounting conservatism makes financial statements more useful by decreasing remaining damages occurring from asymmetric information among executives and stakeholders. Conservative reporting decreases the possibility of overestimations by alleviating aggressive accounting (Khan & Watts, 2009; Watts, 2003). Accounting conservatism reduces executives' propensity to misrepresent and therefore decreases the likelihood of auditors neglect misstatements, which negatively impacts the auditor's capacity to maintain clients (Hennes, Leone, & Miller, 2014; Weber, Willenborg, & Zhang, 2008). As a result, it is expected that Big 4 auditors and audit committees enforce additional conservatism on their clients than non-Big 4 auditors aiming to decrease their risk exposure (litigation risk and reputation risk).

The impact of the audit committee and external auditor on the accounting conservatism has been studied before (Chung et al., 2003; Piot & Janin, 2007; Wistawan, Subroto, & Ghofar, 2015). However, how that influence is affected by 1) the joint effect of the audit committee and external auditor and by 2) the company's rate of growth is not known. Furthermore, no study has been made on this issue based on information from Portuguese listed firms.

This study's goal is to fill these three gaps in the academic literature. Consequently, the research questions are:

*RQ1: Is there a relationship between audit committee, external auditor, and accounting conservatism in Portuguese listed firms?*

*RQ2: Is there an association between the joint effect of the audit committee and external audit on accounting conservatism in Portuguese listed firms?*

*RQ3: Are these relationships moderated by the company's rate of growth?*

The article builds several contributions to the present literature. This paper adds to prior literature on audit committees, external audit, and financial accounting options by increasing the evidence on the consequences of audit committees and external audit on conservative accounting outside the US and the UK backgrounds (Chung et al., 2003; Francis & Krishnan, 1999; Krishnan & Visvanathan, 2008). Portugal has a lower litigation risk environment; thus, it is likely that the audit committee and external audit (big audit firm) would have little incentive to supply higher-quality audits. That is, whether or not audit committees and big auditors may lead a greater level of conservatism than do non-big auditors in backgrounds with inferior lawsuit risk and lesser requests for accounting quality — in a code-law country such as Portugal — continues to be an open issue. Second, the setting up and establishment of audit committees are presently not mandatory, thus permitting listed firms significant choice in whether to implicate corporate administrators in audit excellence issues. Thus, the Portuguese setting provides the occasion to assess the function of audit committees in relation to earnings quality and to offer particular understanding into regulating improvements concerning the performance of these supervising mechanisms. Third, in the US and the UK, the ownership is extensively diffused in contrast with the ownership in Portuguese listed firms which is extremely concentrated, therefore the Portuguese capital market (Euronext Lisbon) offer a distinctive case in the analysis of auditing. The Portuguese stock exchange is also a remarkable setting to examine such association since, unlike major markets like the US, listed firms in Euronext Lisbon are not mandatory to file financial reporting in complete agreement with US GAAP (generally accepted accounting principles). Fourth, this analysis adds to the reduced Portuguese corporate governance literature by studying the effect of the audit committee and audit quality on conservatism accounting. Fifth, this research also contributes to the audit literature by indicating that audit quality is a vital corporate governance characteristic. Sixth, these results can offer valuable information for auditors, regulators, standard setters, and shareholders, mostly whether the audit committee and external audit enhance earnings quality, especially in a country with an lower lawsuit risk background, which is probable to remove the deep pockets motivation for investors, and in companies with a higher level of ownership concentration. Finally, results based on Portuguese

data also assist in constructing an additional extensive international support of the effect of the audit committee and audit quality on conservatism accounting.

The remainder of this paper is organized as follows. Section 2 presents the theoretical framework and hypotheses development. Section 3 describes the variables and research methodology. The sample and data collection are presented in Section 4. Section 5 presents the study results and the discussion of these results. Lastly, Section 6 provides the summary and conclusion.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Comparative to the market value of equity, conservatism leads to an understatement of accounting book value due to the underestimation of assets and revenues and/or the overestimation of liabilities and expenses. Conservatism improves the quality of accounting information since it increases the contracting effectiveness of financial statements (Watts, 2003). Literature also advocates that conservatism increases financial statement usefullness by limiting earnings management, matching the interests of executives and stockholders, and decreasing the consequences of information asymmetry (Francis et al., 2013; Goh, Lim, Lobo, & Tong, 2017; LaFond & Watts, 2008; Watts, 2003).

Theoretically, audit quality is the combined likelihood that the outside auditor identifies material errors in the financial report, and then discloses it to the outside users (DeAngelo, 1981). An independent audit should give integrity to financial report (Jensen & Meckling, 1976). Auditors are considered a central part of the election of accounting practices used in compiling annual accounts. Extant literature suggests that auditing decreases information asymmetry among executives and the market, offering additional integrity to the company's financial reporting (Becker et al., 1998) and thus is an important monitoring mechanism expended by companies to decrease agency costs (Jensen & Meckling, 1976; Watts & Zimmerman, 1983). The fundamental purposes of the audit committee are to supervise the financial reporting procedure and to monitor the executive's tendencies to influence earnings. The key function of outside auditors is to give a judgement on whether an entity's financial reporting is free of substantial misstatements. In comparison with small auditors, high-quality auditors (big audit firms) are more probable to discover dubious accounting choices. Therefore, audit committees and external auditors play to determine the reliability and consistency of the related earnings.

The audit reporting literature points out that reputation risk and lawsuit risk are two principal factors that stimulate auditors to offer high-quality auditing (Francis & Wang, 2008; DeFond et al., 2012). Auditors risk to damage their reputation when audit market participants identify that they have permitted misrepresenting (Weber et al., 2008). Previous studies document that restatements damage auditors' names by prompting auditor dismissals (Hennes et al., 2014). Lawsuit imposes financial penalties on auditors, while a lost reputation harms the capacity to maintain and attract clients (DeFond, Lim, & Zang, 2016). Companies with superior quality in financial reporting are less prone to the lawsuit. In this vein, for example, Houston, Peters, and Pratt (1999) document that the existence of accounting choices produces higher risks of accounting anomalies, which induces greater lawsuit risk evaluations and fee remunerations. Heninger (2001) documents a significant positive association between earnings management and subsequent auditor litigation. Palmrose, Richardson, and Scholz (2004) found higher incidence of lawsuits against auditors when annual restatements occur.

Previous empirical studies propose that the auditors' worries over future reputation and lawsuit costs encourage them to promote further conservative accounting selections, too (DeFond & Subramanyam, 1998; DeFond et al., 2012; Kim et al., 2003; Ani & Chong, 2021). Therefore, big audit firms would incite additional conservative accounting in their clients' financial statements to decrease the likelihood of audit failure and safeguard their market reputation. Really, auditors' negligence to discover accounting anomalies may produce significant lawsuit risks and impact their status in the auditing marketplace. Prior studies suggest that audit failures result in a diminishing of auditor reputation, as shown by a decline in client stock price (Krishnamurthy, Zhou, & Zhou, 2006; Weber et al., 2008), a loss in market share (Weber et al., 2008), and lower audit fees (Fan, Li, Nagarajan, & Smith, 2015).

Litigation penalties are more likely to happen for overstatement rather than understatement (Heninger, 2001; Kellogg, 1984; Kim et al., 2003). For example, Kellogg (1984) finds that companies and auditors are further expected to be litigated for overestimations of assets or profits than for underestimations. Heninger (2001) finds a significant positive relation between income-increasing abnormal accruals and subsequent auditor lawsuits. Thus, litigation risk is a motivation that is probable to prompt auditors to favour accounting choices that diminish earnings. Companies with great litigation are probable to be the most conservative. DeFond and Subramanyam (1998) find that the firms with the highest litigation risk are additionally inclined to report higher magnitudes of negative discretionary accruals. This is consistent with litigation risk inducing auditors to made more conservative accounting options. Therefore, imposing additional conservative accounting selections decreases the risk of audit negligence because auditors are more probably to be involved in litigations for accounting judgement that exaggerates earnings.

Conservative financial reporting decreases the propensity for overstatements by alleviating aggressive accounting choices (Khan & Watts, 2009; Watts, 2003). Consequently, conservatism is expected to decrease litigation risk since auditors are principally sued for permitting overstatements or when clients announce bankruptcy. Conservative firms are less probably to employ earnings management (Goa, 2013; Khalifa & Othman, 2015). In this vein, Donelson, McInnis, Mergenthaler, and Yu (2012) find that previous disclosure of bad earnings news decreases the possibility of litigation. Biddle, Ma, and Song (2020) demonstrate that

conservatism alleviates bankruptcy risk by limiting earnings management. DeFond et al. (2012, 2016) document that client conservatism is related to fewer litigations against auditors. Consequently, auditors are probably to have regular propensities towards accounting conservatism.

Accounting conservatism decreases executives' propensity to misrepresent (LaFond & Watts, 2008; Watts, 2003); thus, decreasing the likelihood that auditors will neglect to avoid misrepresenting, which negatively impacts the auditor's capacity to attract and preserve clients (Hennes et al., 2014; Weber et al., 2008). DeFond et al. (2012, 2016) report that conservative audit clients are less probably to disclose accounting restatements. Consequently, accounting conservatism supports the supervision of the managerial decision-making procedure and supports outside auditors in formulating informed decisions around the clearness and authenticity of a firm's financial reporting practices.

As a result, auditors may impose more conservative accounting practices on their clients aiming to avoid or reduce their risk exposure (litigation risk and reputation risk). For instance, Basu, Hwang, and Jan (2002), Chung et al. (2003), and Iatridis (2012) find evidence that firms audited by a Big 4 auditor display more conservatism. Fafatas (2010) finds that Big 4 auditors involved in audit omission incidents occurring in the post-Enron and Sarbanes-Oxley period impose additional conservative accounting in the year subsequent to the incident. DeFond et al. (2012) document that auditors' lawsuit risk is lower in more conservative clients. Liu and Elayan (2015) find a negative association between higher conservatism and lower litigation risk. Hence, auditors may have an impact on the financial reporting quality of their clients in answer to litigation distresses and public scrutiny.

Portugal is a code-law country with low investor protection, and investors are minus capable to litigate auditors for failure or misbehaviour. Thus, it is possible that the audit committee and external audit (big audit firm) would have little incentive to provide higher quality audits. For example, Liu and Elayan (2015) find that Big 4 auditors request more timely loss recognition only when confronted with raised ex-ante litigation risk. However, auditors with a higher reputation may have a motivation to report further conservatively, aiming to reduce adverse reputational effects from supervisory inspection or to avoid their personal potential lawsuit expenses. In addition, the apprehensions over the maintenance of an auditor's client might influence the auditor's decision mainly when the risk of a lawsuit is small (Gramling, Jenkins, & Taylor, 2010). In this sense, Salehi, Tarighi, and Sahebkar (2018) find that a high auditor reputation constrains earnings management.

Overall, this study points out that audit committees and big audit firms are more capable to recognise the advantages of conservatism in decreasing agency conflicts and deadweight loss, in contracting with debtholders and/or shareholders, diminishing the lawsuit risks for administrators, auditors, and executives, and in decreasing the reputation costs, mainly for auditors. Consequently, it is expected that audit committees and big audit firms favour the adherence to conservative reporting.

In Portugal, the Securities Market Supervisory Authority (*Comissão de Mercado de Valores Mobiliários*, henceforth "CMVM"), suggests that the board of directors should establish internal audit committees with the authority to evaluate the corporate structure and its governance. Hence, audit committees are not mandatory but only recommended by CMVM's regulation. This permits listed companies' significant freedom whether to implicate directors in the audit process.

Extant literature advocates that the presence of an audit committee (Baioco & de Almeida, 2017; Dechow, Sloan, & Sweeney, 1996) and audit committee characteristics (expertise, independence, and size) (Lin, Li, & Yang, 2006; Sultana & Zahn, 2015; Zalata et al., 2018), are related with more reliable financial reporting.

Audit committees have motivations to limit opportunistic financial reporting by reason of professional penalties and adverse advertising when financial reporting problems happen. Therefore, if conservative accounting facilitates monitoring of managerial behaviour, the financial reporting process, and the auditing process, it is likely that firms with audit committees normally request more conservative accounting reporting. In addition, Krishnan and Visvanathan (2008) point out that litigation risk also rises the incentive for audit committee members to stimulate conservatism. Piot and Janin (2007) find that audit committees are related to a high earnings conservatism. Krishnan and Visvanathan (2008) document that the level of accounting knowledge on audit committees is positively associated with accounting conservatism. Ahmed and Henry (2012) and Wistawan et al. (2015) document that the presence of an audit committee is associated with greater conservatism. Sultana (2015), Sultana and Van der Zahn (2015), and Yunos, Ahmad, and Sulaiman (2014) find that audit committee financial know-how is positively related to conservatism. Sultana (2015) and Yunos et al. (2014) find that audit committee meeting frequency is positively related to conservatism. Olyhoek (2017) finds that audit committee financial knowledge and audit committee age are positively associated with conservatism.

As mentioned before, the CMVM's guideline suggests that the board of directors should have internal audit committees. Hence, our first hypothesis is the following:

*H1: The presence of an audit committee is positively associated with accounting conservatism.*

Previous analyses suggest that big N audit firms have superior audit quality than non-Big N auditors (Francis et al., 1999). In this sense, Becker et al. (1998) find that Big 6 auditors are of better superiority than non-Big 6 auditors and that greater audit excellence is related to minus "accounting flexibility". Francis et al. (2013), Krishnan (2003), and Sun and Liu (2011) observe that big firm auditors limit earnings management.

Big audit firms are likely to be more conservative than non-big audit firms, as their employees have superior knowledge and incur greater risk of reputational loss. In fact, if big audit firms are more concerned about litigation and reputation risk, they will be expected to promote more conservatism, because conservatism helps to mitigate the risk

exposure (Cano-Rodríguez, 2010). Big audit firms have also great power to influence listed clients to implement conservatism. In fact, the loss of a listed client, through divergence in accounting rules, is probably to be less expensive for a big audit firm than for a non-big audit firm. Listed firms are a prestigious portion of a non-big audit firm's clientele and so they may be able to consent minus conservative accounting in order to preserve the audit appointment (Chung et al., 2003). Consistent with these arguments, Reynolds and Francis (2001) find that reputation protection leads to big auditor reporting conservatism. Basu, Hwang, and Jan (2001), Cano-Rodríguez (2010), Chung et al. (2003), Francis and Krishnan (1999), Francis and Wang (2008), Gor, Karakvs, and Tasar (2017), Hamdan, Kukrija, Awwad, and Dergham (2012), Kim et al. (2003), and Souza, Paulo, Roberto, Cavalcante, and Paulo (2013) find that big audit clients exhibit more accounting conservatism than non-big audit clients.

Therefore, to safeguard their status and to prevent legal responsibility, the big firm auditors will be more conservative and will limit clients from employing discretionary accruals. Furthermore, a Big 4 auditor will be encouraged to stimulate conservative accounting as the implementation of "conservative" accounting choices is less expected to draw censure from investors and regulators compared to aggressive accounting practices. Therefore, our next hypothesis is:

*H2: Portuguese companies audited by Big 4 audit firms use more accounting conservatism than firms audited by non-Big 4 auditors.*

Prior research has considered audit committees and external auditors as independent supervising instruments as they report to conservatism accounting (Ahmed & Henry, 2012; Mohammed, Ahmed, & Ji, 2017). Nonetheless, both supervising devices are a part of the complete corporate governance organisation of the company; accordingly, it is improbable that they work individually inside the corporate structure.

The audit committee is a vital function as a supervising mechanism to assess the internal and external auditors' work. External auditors play a vital function to guarantee the excellence of financial reporting, decrease agency costs resulting from executives' devious conduct, and diminish asymmetric information between companies and stakeholders (Francis & Wang, 2008; Iatridis, 2012). Thus, the audit committee and external auditor have the motivation to produce high-quality statements. Furthermore, the audit committee and external auditor are also likely to implement high-quality audit procedures in order to preserve status, audit market, and prevent legal responsibility.

By working closely together, the audit committee and external auditor can preserve and promote financial reporting quality. Thus, our third hypothesis is:

*H3: Audit committee existence and Big 4 audit firms together inside the company have a supplementary impact on the degree of accounting conservatism.*

High-growth firms are by essence harder to supervise due to the presence of discretionary investments and measurement difficulties related to future assets (Myers, 1977). High-growth firms are also probably to have more volatile stock returns because a higher percentage of their market value is associated with risky growth options. Companies with high volatile stock returns are also more expected to have very large losses that trigger lawsuits. As a result, high-growth firms tend to have a higher litigation risk (Francis, Philbrick, & Schipper, 1994). Executives in high-growth firms are more probably to have opportunistic behavior (Skinner, 1993; Watts & Zimmerman, 1986). Further, the encouragement to exaggerate earnings is highest for high-growth clients because these companies are most extremely penalised by investors for omitted earnings forecasts. Dechow et al. (1996) document that companies with growth opportunities are associated with the occurrence of accounting choices that do not follow US GAAP. High-growth firms are more expected to participate in earnings management, which will additionally intensify the condition of inferior observability in the growth of firms (Chen, Elder, & Hung, 2010; Zalata et al., 2018). Furthermore, discretionary accruals intensify the audit risk since they are intrinsically harder to audit.

Collectively, research suggests that high-growth clients face greater risk environments, which affect auditor engagement risk. Higher audit quality is related to more useful and predictable earnings (DeFond, Erkens, & Zhang, 2017), therefore, clients with high-growth pose superior reputation risk to their auditors, leading the auditor to demand more conservative accounting in the high-growth clients' financial statements. Moreover, even if litigation risk is estimated to be lower in Portuguese listed firms, auditors can also try to alleviate this risk by promoting more conservatism, mainly in high-growth clients for which the risk of a lawsuit or public involvement is superior.

Therefore, audit committees and Big 4 auditors will require higher conservatism on the financial statements of high-growth clients in response to higher risk.

*H4a: High growth moderates the association between audit committee existence and accounting conservatism.*

*H4b: High growth moderates the association among Big 4 audit firms and accounting conservatism.*

## 3. RESEARCH METHODOLOGY

### 3.1. Variables measurement

Audit committee existence (*Audit*) is computed as a binary variable coded 1 if the firm has an audit committee and 0 otherwise.

External audit (*Big4*), coherent with previous studies (Basu et al., 2001; Cano-Rodríguez, 2010; Chung et al., 2003), was calculated as an indicator variable taking the value 1 if the auditor is a Big 4 audit firm (Deloitte Touche Tohmatsu, Ernst & Young, KPMG, PricewaterhouseCoopers), and 0 otherwise.

Growth opportunities (*Growth*), are quantified as the market-to-book ratio.

For accounting conservatism (*CONS_ACC*), like previous research, is used an accruals-based proxy (Ahmed & Henry, 2012; Givoly & Hayn, 2000;

Kim et al., 2013). The *CONS_ACC* is income from operations plus depreciation less cash flows from operations deflated by average total assets, multiplied by a negative one. Positive values of *CONS_ACC* designate higher conservatism.

### 3.2. The empirical equations and control variables

To assess the impact of audit committee existence and external audit on conservatism accounting, we estimate the following regression:

$$CONS\_ACC_{it} = \beta_0 + \beta_1 Audit_{it} + \beta_2 Big4_{it} + \beta_{3-5} Control + \varepsilon_{it} \quad (1)$$

We analyse the combined effect of the audit committee and external auditors on earnings conservatism by estimating the following regression:

$$CONS\_ACC_{it} = \beta_0 + \beta_1 Audit_{it} + \beta_2 Big4_{it} + \beta_3 Audit_{it} * Big4_{it} + \beta_{4-6} Control + \varepsilon_{it} \quad (2)$$

To test the potential moderating effect of company's rate of growth on the association among conservatism, audit committee and Big audit firms, we estimate the next regression:

$$CONS\_ACC_{it} = \beta_0 + \beta_1 Audit_{it} + \beta_2 Big4_{it} + \beta_3 Growth_{it} + \beta_4 Audit_{it} * Growth_{it} + \beta_5 Big4 * Growth_{it} + \beta_{6-8} Control + \varepsilon_{it} \quad (3)$$

where,

$CONS\_ACC_{it}$ = is the accruals-based measure of conservatism, defined as the income from operations plus depreciation less cash flows from operations deflated by average total assets, multiplied by a negative one for firm *i* for period *t*.

$Audit_{it}$ = dummy variable: 1 if the firm has an audit committee and 0 otherwise.

$Big4_{it}$ = dummy variable: 1 if the auditor is a Big 4 and 0 otherwise.

$Growth_{it}$ = is the market-to-book ratio.

$Control_{it}$ = defined below.

$\varepsilon_{it}$ = residual term of firm *i* for period *t*.

$\beta_0$ is a constant, $\beta_1$ to $\beta_8$ are the coefficients.

We also introduced some control variables to consider the effect of the other elements that can determine executives' accounting alternatives. We control for the impact of board composition (*BComp*) on conservatism, measured as the number of non-executive directors divided by the total number of board members. Literature indicates that conservatism is positively related to non-executive directors (Mohammed et al., 2017). We control for *Leverage* measured as the ratio between the book value of all liabilities and the total assets. Watts (2003) claims that conservatism is a significant characteristic of financial reporting in safeguarding effective contracting among stockholders and lenders. Ahmed and Henry (2012) and Chen et al. (2010) verify a positive association between leverage and conservative reporting. We also control for *Size* measured as the natural logarithm of the market value of equity. Watts and Zimmerman (1986) claim that larger firms use more conservative accounting because compared with small firms, they have more political costs due to greater analyst following and investor inspection. Sun and Lin (2011) document a positive relationship between large firms and accounting conservatism.

## 4. SAMPLE AND DATA COLLECTION

Our sample comprises all listed firms in Euronext Lisbon for the period 2005–2017 (642 firm-year observations in total). Foreign firms (53 in total) and football club companies (37 in total) are eliminated. Consequently, we get an unbalanced panel of 552 firm-year observations over the 2005 to 2017 period.

Information on depreciations, income operations, operational cash flows, total assets, total equity, audit committee, audit quality (Big 4 audit firm or non-Big 4 audit firm), market-to-book ratio, board composition, and leverage are obtained from the Annual Report (CMVM, 2022a) and Corporate Governance Report (CMVM, 2022b). The information to measure the variable firm size (*Size*), is collected from Euronext Lisbon.

Table 1 exhibits the variables' descriptive analysis. Table 2 presents the Spearman correlations among the explanatory variables.

**Table 1.** Variable descriptive analysis

| *Variable* | *Mean* | *Median* | *Min.* | *Max.* |
|---|---|---|---|---|
| *CONS_ACC* | 0.083 | 0.064 | -0.662 | 0.980 |
| *Audit* | 0.375 | 1.000 | 0.000 | 1.000 |
| *Big4* | 0.709 | 1.000 | 0.000 | 1.000 |
| *Growth* | 1.575 | 1.008 | -37.710 | 27.678 |
| *BComp* | 0.421 | 0.464 | 0.000 | 0.888 |
| *Leverage* | 0.789 | 0.769 | 0.072 | 4.523 |
| *Size* | 19.069 | 18.854 | 11.918 | 23.517 |

*Note: Number of observations: 552; Period: 2005–2017. CONS_ACC denotes the income from operations plus depreciation less cash flows from operations deflated by average total assets, multiplied by negative one; Audit binary variable coded 1 if the firm has an audit committee and 0 otherwise; Big4 dummy variable, which takes a value 1 if the auditor is a Big 4 and 0 otherwise; Growth is the market-to-book ratio; BComp is the number of non-executive directors divided by the total number of board members; Leverage represents the ratio between the book value of all liabilities and the total assets; Size represents the firm's size.*

**Table 2.** Spearman correlation coefficients matrix

| *Variable* | *CONS_ACC* | *Growth* | *BComp* | *Leverage* | *Size* |
|---|---|---|---|---|---|
| ***CONS_ACC*** | 1 | | | | |
| ***Growth*** | -0.136** | 1 | | | |
| ***BComp*** | 0.262** | 0.165** | 1 | | |
| ***Leverage*** | 0.115* | 0.689** | -0.060 | 1 | |
| ***Size*** | 0.613** | 0.183** | 0.324** | -0.155** | 1 |

*Note: CONS_ACC represents the income operations plus depreciation less cash flows from operations deflated by average total assets, multiplied by negative one; Growth is the market-to-book ratio; BComp is the number of non-executive directors divided by the total number of board members; Leverage represents the ratio between the book value of all liabilities and the total assets; Size represents the firm's size. *** Correlation is significant at the 0.01 level (2-tailed); ** Correlation is significant at the 0.05 level (2-tailed).*

Table 1 displays that the variable *CONS_ACC* has a mean (median) of 0.083 (0.064), with a minimum of -0.662 and a maximum of 0.980. This indicates that there is a variation between companies in applying conservatism policies. On average, about 37.5% of Portuguese firms signal the existence of an audit committee (*Audit*). About 70.9% of the firms in Portugal over the observed period are audited by the Big 4 auditors. The mean (median) *Growth* is 1.575 (1.008), with a minimum of -37.71 and a maximum of 27.678. The board composition (*BComp*) exhibits a mean of 0.421, which signals that about 42.1% of the firms have a board filled with members of the board who are non-executive directors. The minimum (0.0%) and the maximum (88.8%) of the board composition (*BComp*) suggest that there is a great variance through distinctive firms for this variable. *Leverage* variable has a mean of 0.789 of the total assets of the firm. The mean firm size (*Size*) shows EUR 985 million with a minimum of EUR 150 thousand and a maximum of EUR 16.345 million.

Table 2 details the Spearman correlations among the variables used in this study. The binary variables (*Audit* and *Big4*) are not contained in Table 2, because the Spearman correlation coefficient is not calculated for binary variables. *Growth* is negatively related to *CONS_ACC,* implying that high-growth companies have less conservatism. On the other hand, *Growth* is positively correlated with *BComp, Leverage,* and *Size*. *CONS_ACC* has a significant positive correlation with *BComp, Leverage,* and *Size*. *Size* is positively correlated with *BComp*, suggesting that large firms have a higher number of non-executive directors on the board. *Size* is negatively associated with *Leverage*. The correlation coefficients suggest the non-existence of severe statistical issues associated with multicollinearity (Tabachnick & Fidell, 2001).

## 5. MULTIVARIATE REGRESSION RESULTS AND DISCUSSION

We use the Breusch-Pagan test to compare the outcomes of the pooled OLS model to those of the random-effects model. This test reveals that the random-effects model is better than the pooled regression model. We also use the F-test, which reveals that the fixed-effects model is also superior to the pooled regression. Finally, we used the Hausman specification test to compare random- and fixed-effects models. The test suggests that the fixed-effects model is proper. Accordingly, this study selects the fixed-effects model as the best-fit regression model to determine an association among the variables.

Table 3 reports fixed-effects regression estimates for the equations established in Section 3.

**Table 3.** Fixed-effects regressions results

| ***Dependent variable*** | ***CONS_ACC*** | | | | | | |
|---|---|---|---|---|---|---|---|
| ***Independent variables*** | ***(1)*** | ***(2)*** | ***(3)*** | ***(4)*** | ***(5)*** | ***(6)*** | ***(7)*** |
| Constant | 0.059 | -0.056 | -0.122 | -0.070 | -0.006 | -0.014 | -0.008 |
| *Audit* | 0.010 | 0.014 | 0.093 | 0.056 | 0.063 | 0.031 | 0.012 |
| *Big4* | 0.026* | 0.101** | 0.232*** | 0.112** | 0.199*** | 0.086* | 0.054* |
| *Audit * Big4* | | | 0.251*** | 0.161*** | | | |
| *Growth* | | | | | -0.054** | -0.063** | -0.079** |
| *Audit * Growth* | | | | | | 0.081* | 0.108** |
| *Big4 * Growth* | | | | | | 0.236*** | 0.248*** |
| *BComp* | | 0.099*** | | 0.147*** | | | 0.194*** |
| *Leverage* | | 0.076*** | | 0.154*** | | | 0.201*** |
| *Size* | | 0.087*** | | 0.097*** | | | 0.1230** |
| R-squared | 10.70% | 30.77% | 15.35% | 33.78% | 18.13% | 20.67% | 38.09% |
| Adjusted R-squared | 7.12% | 21.60% | 9.88% | 22.04% | 10.89% | 15.00% | 26.3% |
| F-statistic | 8.252*** | 21.168*** | 8.546*** | 22.436*** | 10.594*** | 11.807*** | 25.927*** |

*Note: Number of observations: 552; Period: 2005–2017. CONS_ACC represents the income operations plus depreciation less cash flows from operations deflated by average total assets, multiplied by negative one; Audit dummy variable which takes a value 1 if the firm has an audit committee and 0 otherwise; Big4 dummy variable which takes a value 1 if the auditor is a Big 4 and 0 otherwise; Audit * Big4 represents the interaction between the audit committee and Big4; Growth is the market-to-book ratio; Audit * Growth represents the interaction between the audit committee and Growth. Big4 * Growth represents the interaction between Big4 and Growth. BComp represents the ratio between the number of non-executive directors and the total number of board members; Leverage represents the ratio between the book value of all liabilities and the total assets; Size represents the firm's size. *** Significant at the 1% level; ** Significant at the 5% level; * Significant at the 10% level.*

Table 3 presents the results from equations (1), (2), and (3) which examine the effects of audit committee existence, external audit, and the interaction among these variables on accounting conservatism, as well as the potential moderating effect of company's rate of growth on the association among conservatism, audit committee and big audit firms. Columns (1) and (2) present the results from

equation (1) without and with the control variables, respectively. Columns (3) and (4) show the results from equation (2) without and with the control variables, respectively. Column (5) presents the results from equation (3) without interactions between *Audit* and *Growth* and *Big4* and *Growth*. Columns (6) and (7) present the results from equation (3) without and with the control variables, respectively.

We document a positive relationship, but not statistically significant between audit committee existence and conservatism accounting. Some possible explanations for this result may be: 1) the company's audit committee is ineffective, because the members may have multiple non-executive directorships or because they have absence or low levels of knowledge to analyse whether the accounting judgments made by the executive are adequate; 2) a high-quality audit committee may be contingent on other corporate governance features, and 3) the lack of "roles" that can increase audit committee effectiveness. Empirical studies suggest that audit committee independence (Marzuki, Wahab, & Haron, 2016), audit committee expertise (Krishnan & Visvanathan, 2008; Marzuki et al., 2016) and audit committee meetings (Yunos et al., 2014) have a significant role in demanding conservatism accounting.

We document a positive significant association between Big 4 and conservatism accounting. As in Basu et al. (2001), Cano-Rodríguez (2010), Chung et al. (2003), Francis and Wang (2008), Hamdan et al. (2012), Gor et al. (2017), and Kim et al. (2003), this result indicates that companies audited by Big 4 audit firms present more conservative accounting than firms audited by non-Big 4 audit firms.

The relationship between the interaction variable and the conservatism accounting is positively significant. Thus, the result indicates that audit committee existence and external audit (Big 4 audit firm) together seem to increase the degree of conservatism accounting.

We find a positive relationship between *Growth* and conservatism accounting, which indicates that high-growth companies are less conservative in accounting choices. This result is consistent with the argument that high-growth companies are related to greater insecurity that, in turn, causes supervising executive actions more problematic. Consequently, executives in high-growth firms are more expected to have opportunistic comportment (Skinner, 1993; Watts & Zimmerman, 1986).

With respect to the impact of *Growth* on the association between the audit committee and conservatism and between *Big4* and conservatism, the coefficients on *Audit * Growth* and *Big4 * Growth* are positive and significant. These findings suggest that the level of conservatism reduction associated with more growth is attenuated when the firms are audited by a Big 4 auditor and the board of directors has an audit committee. Thus, this result indicates that audit committees and Big 4 auditors enforce superior conservatism on the financial reporting of high-growth clients in answer to higher risk.

Overall, our findings show that even in an institutional setting with low litigation risk, which is presumably to remove the deep pockets motivation for investors, such as Portugal, Big 4 audit firms would have an incentive to offer greater quality audits. For the Big 4 audit firms, the status in auditing financial reports is a significant qualified asset in preserving present clients and attracting new audit clients. Additionally, for these big audit companies reputation is a essential asset that may assist to create "market permissions" for new non-audit services. Therefore, reputation concerns could postulate enough motivation for Big 4 auditors to require greater excellence audits in settings with less litigation risk coherent with their brand name reputation.

## 6. CONCLUSION

Conservatism is considered a successful governance device in decreasing agency costs and litigation risk. Thus, it is predictable that an efficient audit committee and a high-audit quality will contemplate conservatism as an appropriate attribute of financial reporting and will encourage more conservative accounting.

Using a sample of non-financial listed Portuguese firms-year from 2005 to 2017, this study analyses the effect of audit committee existence and external auditor on conservatism accounting. Furthermore, as the external auditor is chosen by and reports to the audit committee, it is expected that these two devices work together to demand accounting conservatism. Further, it is also studied the potential moderating effect of a company's rate of growth on the association among conservatism, audit committee, and big audit firms. Our findings indicate that the audit committee's existence per se has no impact on conservatism. Therefore, the Portuguese regulator (CMVM) should emphasise questions associated with enhancing the supervisory effectiveness of audit committees. We find that companies audited by Big 4 audit firms present more conservative accounting than firms audited by non-Big 4 audit firms.

Our results suggest that audit committee existence and external audit (Big 4 audit firm) together seem to increase the degree of conservatism accounting. Thus, firms audited by Big 4 auditors with a separate board audit committee display high conservatism accounting. Additionally, we document that the increase in conservatism accounting for firms audited by Big 4 auditors is magnified for high-growth firms. In other words, this finding suggests that executives of companies with great investment opportunities are more probably to employ discretionary accruals (less conservatism). However, they are less prone to do so when their firms have enhanced audit monitoring. This result should be interpreted cautiously as there exists alternative justification for the relationship. The alternative explanation for our results is that companies with high growth are more probably to appoint Big 4 auditors to signal conservative accounting than firms with low growth.

Moreover, the results also reveal higher conservatism accounting when the percentage of non-executive directors, leverage, and firm size is high.

The results of this analysis generate the next contributions. First, the findings seem to indicate that audit committee existence does not affect the level of accounting conservatism in Portuguese listed firms. Second, our findings also suggest that

Big 4 auditors promote conservative accounting. This result is in line with previous evidence showing that Big 4 auditors enhance conservatism. However, using a sample of firms from a code law country (Portugal) extends that evidence to a context in which the reduced litigation risk faced by auditors does not provide an incentive to preserve their independence. Third, this study also suggests that the audit committee interacted with Big 4 auditors to increase the degree of conservatism accounting. Thus, audit committee existence and external audit together appear to improve earnings quality. Fourth, high-growth firms are more probably to have less conservatism. Nevertheless, this association is weaker when they are audited by Big 4 auditors. Therefore, the engagement of higher quality auditors is favourable to users of financial statements of firms with high growth. Therefore, our outcomes indicate that high-quality auditors are more expected to keep their reputation capital in circumstances where the threat to auditor independence is higher. Fifth, the findings are significant for nations with an institutional background comparable to that of Portugal. Sixth, our findings are also important to regulators in Portugal and the European Union as well as to stakeholders interested in audit committees and Big 4 auditors' effectiveness on earnings quality. Lastly, audit companies can find these outcomes beneficial if they desire to increase audit quality and preserve a positive reputation, too.

This paper has some limitations. First, we use an accruals-based proxy to quantify accounting conservatism. The perception essential to this measure is that conservative accounting results in recurrent negative accruals. However, negative accruals may result from income decreasing earnings management (e.g., decreasing stock price in an attempt to gain economic benefits). In addition, this study also assumes that there is a divergence of reporting incentives between auditors and executives. However, as pointed out by Kim et al. (2003) "when both managers and auditors have incentives to prefer income-decreasing accrual choices … no conflict of reporting incentives exists between the two parties" (p. 323).

Future studies can examine the effects of other proxies to measure accounting conservatism. This analysis may be also extended to other countries.

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