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Peer-reviewed author version

CORTEN, Maarten; LYBAERT, Nadine & STEIJVERS, Tensie (2022) Auditing private firms in a civil law context: an exploratory analysis of the impact on form and substance quality. In: SPANISH JOURNAL OF FINANCE AND ACCOUNTING-REVISTA ESPANOLA DE FINANCIACION Y CONTABILIDAD,.

DOI: 10.1080/02102412.2022.2109839

Handle: <http://hdl.handle.net/1942/38649>

Auditing private firms in a civil law context: an exploratory analysis of the impact on form and substance quality

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Acknowledgements

We thank the associate editor and two anonymous reviewers for their constructive feedback during the entire review process. We also thank Brent Wagemans for his research assistance in developing the form quality measure and collecting the data.

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Abstract

This study examines to what extent auditors increase financial reporting quality in a civil law private firm context. Although such context provides little incentives to focus on financial reporting quality, the signaling role remains important. Therefore, we argue that auditors will also increase the quality of the financial statements in this context but will primarily focus on the form quality of the statements (i.e., the extent to which the required disclosures are made) while the substance quality (i.e., the extent to which the financial statements faithfully represent the economic reality) might become a smaller concern. A new measure for form quality is developed, and two matched samples of 278 and 316 Belgian private firms respectively are used to test our hypotheses. Our results confirm that having an auditor significantly increases the form quality of the financial statements while the effect on substance quality is more ambiguous.

Keywords: audit quality, private firms, civil law context, form quality, substance quality

1. Introduction

Although the value of external auditing is mainly articulated in a listed firm context, external auditing is also considered valuable for private firms (Dedman, Kausar, & Lennox, 2014; Lennox, 2005; Niskanen, Karjalainen, & Niskanen, 2011). Within a private firm context, audited financial statements will also reduce agency conflicts between the owner-managers and the outside shareholders and debtholders of a company (Lennox, 2005; Vander Bauwhede & Willekens, 2004). They could also be used to evaluate managerial and compensation decisions in the absence of market-based measures of firm value (Chaney et al., 2004, in: Van Tendeloo

& Vanstraelen, 2008) and may signal high financial reporting quality to increase the firm's reputation towards its stakeholders (Van Tendeloo & Vanstraelen, 2008).

However, to be valuable, auditors should increase the financial statements quality of the firms they audit. This study sheds light on the presence (or absence) of this quality increase within a civil law private firm context and will answer the following research question: do audited financial statements have more information quality than non-audited financial statements in a civil law private firm context? Due to the specific characteristics of this context (a limited risk of litigation, low demand for audit (quality), and a lack of governance structures like audit committees), few incentives are given to auditors to focus on increasing the quality of the financial statements. We, therefore, do not expect auditors to focus on improving the *substance quality* of the financial statements (i.e., the extent to which the financial statements faithfully represent the economic reality) within such context. However, since the signaling role of auditing will remain important, we do expect auditors to increase the *form quality* of the financial statements (i.e., the extent to which the required disclosures are made), especially since this would also further reduce the risk of litigation. As this would mainly reduce the audit service to a compilation assignment, which can be executed by external accountants¹ as well, we also examine the added value of auditors over accountants for private firms in a civil law context.

We use two matched samples of 278 and 316 Belgian private firms respectively to test our hypotheses. We rely on a newly developed measure that captures form quality in a very detailed way. It captures to what extent each company complies with reporting requirements based on standards from Belgian GAAP, the Belgian company law, and the standardized

¹ By external accountants, we mean members of the Belgian Institute for Tax Advisors and Accountants (ITAA) while external auditors have to be a member of the Institute of External Auditors (IBR). While both auditors and external accountants can have an influence on the financial statements quality, only external auditors are entitled to perform an external audit (Sarens, Everaert, Verplancke, & De Beelde, 2015).

financial statements schedules. To measure substance quality, we rely on the discretionary accruals estimated by the cross-sectional Modified Jones model (Dechow, Sloan, & Sweeney, 1995). In line with our expectations, we find a strongly significant and positive association between hiring an auditor and form quality. Having appointed an external accountant instead of an auditor is also found to be positively associated with form quality, but its effect is significantly lower than the effect of auditors. For substance quality, the results are more ambiguous.

Because a new measure to capture form quality was developed in this paper (while being a contribution on its own) and given the relatively limited sample sizes within a single-country context used to test the hypotheses, the results of this study should be considered to be exploratory. However, these findings add to the current knowledge about the role of auditors in three ways. First, while the value of external auditing was long considered to be lower for private firms due to client characteristics (e.g., lower agency costs, less complexity, etc.), this study shows that auditors significantly increase the financial reporting quality of such private firms, especially regarding form quality. Second, this study provides further evidence on how a context in which auditors operate can influence the level of audit quality they provide, in this way contributing to the studies of Kuo and Lee (2018), Chen, Zhang, and Zhou (2017), Francis and Dechow (2008) and Francis, Khurana, and Pereira (2003). Third, this study adds to the audit quality literature by also focusing on form quality and by developing a new measure for this construct, which may lead to additional insights regarding the incentives and actual contributions of auditors within different environments.

This paper proceeds as follows. In the next section, we develop our hypotheses. In section 3, we elaborate on our methodology. Our results are reported in section 4, and our conclusions follow in section 5.

2. Hypotheses development

2.1 The role of auditing in private firms

While external auditing is considered an essential service to protect the interests of a firm's stakeholders, this role is primarily articulated in a listed firm context. Within this context, the role of auditing is generally explained by the following theories: the insurance theory, the agency theory, and the signaling theory. However, these theories are not equally applicable to private firms.

The insurance-related argument of audit demand can be considered as a result of the fact that the auditor is mostly the only associated party with sufficiently 'deep pockets' to compensate for the investors' losses when a firm is in financial distress (Dye, 1993). When a bad investment decision is based on audited financial statements, the investors may partly recover the losses when suing the auditor if some form of audit failure can be demonstrated (Menon & Williams, 1994). This theory will only apply to a minimal level in a private firm context due to a lack of litigation, especially in a civil law context.

The agency theory considers auditing as a device to reduce agency costs between the managers and the owners of a company on the one hand and between the managers and the debtholders on the other (Jensen & Meckling, 1976). Since the managers of a company (the agents) will generally only bear a part of the wealth effect of their decisions, they will not always act in the best interest of the owners and debtholders (Jensen & Meckling, 1976). The owners or lenders (the principals) will try to monitor managers or try to give them the right incentives through contracts (variable remuneration, covenants, etc.) to reduce this divergence of interest (i.e., agency conflicts). However, to monitor managers or contract with managers, the principals have to rely on the financial statements. These are generally prepared by the managers themselves and, therefore, cannot be considered entirely objective (Jensen &

Meckling, 1976; Lennox, 2005). By verifying the validity of the financial statements, an auditor is considered to increase this objectivity and is therefore considered to improve the monitoring and contracting possibilities of the principals towards the agents (Becker, Defond, Jiambalvo, & Subramanyam, 1998; Lennox, 2005). Accordingly, this will reduce the divergence of interests between these parties and, therefore, the related agency conflicts. In a private firm context, however, there generally is a lower separation of management and ownership, and there are overall closer relationships among its members (Fama & Jensen, 1983a, 1983b). This makes it much easier to monitor management directly, and therefore the agency role of auditing is considered to be much lower as well (Fama & Jensen, 1983a, 1983b). However, although the level of agency conflicts may be lower, agency conflicts may still arise in firms that are not completely owned by the management of the firm (Hope, Thomas, & Vyas, 2011; Hope, Langli, & Thomas, 2012; Hope & Vyas, 2017), especially when taking into account that higher management ownership may also lead to an entrenchment effect (Lennox, 2005). Therefore, audited financial statements could still be valuable to evaluate managerial, compensation, and loan decisions in the absence of market-based measures of firm value (Chaney, Jeter, & Shivakumar, 2004; Dedman, et al., 2014; Hope, et al., 2011).

The signaling theory suggests that auditors can *signal* quality to external stakeholders (e.g., potential investors, banks, customers, suppliers,...) (Bar-Yosef & Livnat, 1984). Without an audit, it would be much more difficult, if not impossible, for these stakeholders to distinguish financially sound from unhealthy companies (Bar-Yosef & Livnat, 1984; Beattie & Fearnley, 1995). This would lead to an undervaluation of shares, lower buying intentions, limited investments,... (Bar-Yosef & Livnat, 1984). This theory is considered to remain highly important within a private firm context, especially since alternative information resources like analyst reports and stock prices are not available in this context (e.g., Lennox & Pittman, 2011; Vanstraelen & Schelleman, 2017). This is also supported by studies finding that private

companies are more likely to be granted a loan at a lower interest rate if they are audited (Dedman & Kausar, 2012; Lennox & Pittman, 2011; Palazuelos, Crespo, & del Corte, 2018, 2020).

2.2 Audit quality in a civil law private firm context

While recent studies point out that auditing may also be valuable for private firms, these studies assume that auditors also provide an acceptable level of audit quality in this context. Although the academic literature considers the audit quality to be of an acceptable level overall (Francis, 2004), most of the studies empirically covering this topic focus, again, on listed firms. However, the private firm environment, especially within civil law countries, consists of several characteristics that may jeopardize audit quality.

First, although auditing certainly has several benefits for private firms, most of these benefits apply to outsiders. Banks, suppliers, the government, customers, and even competitors obtain valuable information from the audited financial statements for making decisions. For the insiders of the firm (i.e., the owners and managers), the benefits generally remain limited due to the low level of separation between ownership and management. For this reason, the cost of auditing typically exceeds its private benefits, and the demand for auditing in a civil law private firm context is, therefore, often regulated (Minnis & Shroff, 2017). As a result, most private firms in a civil law context hire an auditor because they have to. Owner-managers of private firms may, therefore, often consider auditing a cost that should be minimized by selecting auditors that charge the lowest fee (and thus potentially provide the lowest level of audit quality).

Second, although management is already considered to have a considerable influence on auditor appointments and terminations, which might influence who the auditor views as ‘the client’ (Cohen, Krishnamoorthy, & Wright, 2010), this influence is considered to be especially

large in private firms. Such firms often have no audit committee that assists the board in overseeing the financial reporting process and forms the link between management and auditors (Lin & Hwang, 2010; Vafeas, 2005). As audit committees are found to add significantly to the level of audit quality (Pomeroy & Thornton, 2008), the level of audit quality might be much lower in a private firm context. Moreover, while independent boards of directors are also found to positively influence the financial reporting quality (Lin & Hwang, 2010), the independence of boards is often questionable in a private firm context. The management will, therefore, often have the largest influence on the auditor choice in private firms, and this may lead auditors to become more concerned with this management instead of the board and shareholders. In this way, both the level of independence towards management and the level of audit quality might be jeopardized. This potential threat becomes even larger because many regulations implemented to safeguard auditor's independence (e.g., firm and partner rotation, restricting non-audit services,...) only apply to listed firms but not to private companies (Vanstraelen & Schelleman, 2017). This often results in long-term auditor-client relationships within a private firm context, which may lead to auditors becoming too familiar with the client's management (Langli & Svanström, 2014). It seems, therefore, more difficult for auditors to retain their independence from management in a private firm context, both in the short run because of the power management has and in the long run because of the risk of social bonding, leading to potential audit quality reducing behaviors.

Third, litigation and disciplinary sanctions are generally considered to prevent auditors from compromising on the level of (audit) quality, which is supported by various studies (e.g., Ke, Lennox, & Xin, 2015; Maijor & Vanstraelen, 2006; Venkataraman, Weber, & Willenborg, 2008). However, the risk of litigation is low when auditing private firms in a civil law context, which is characterized by low investor protection (Choi & Wong, 2007; Francis & Dechun, 2008; Van Tendeloo & Vanstraelen, 2008). Moreover, the litigation risk is related to the

probability that an audit failure is detected, and this probability is lower in the private firm context as well since private firms are less monitored by analysts, investors, stock markets, etc. (Lennox, 2005; Van Tendeloo & Vanstraelen, 2008). Furthermore, not only the likelihood of litigation is lower in a private firm context, but also the impact of it, as private firms are generally audited by smaller audit firms, which have less reputational capital at risk (Vanstraelen & Schelleman, 2017). Although a lack of litigation risk could be counterbalanced by disciplinary sanctions imposed by governmental authorities (Defond, Francis, & Hallman, 2018; Sundgren & Svanström, 2017, 2022), such public oversight sanctions were found to have limited consequences for auditors of private firms (Sundgren & Svanström, 2017). Therefore, the incentive for auditors to mainly focus on the managers' interests at private firms may not be sufficiently tempered by the institutional context in which they operate, further increasing the risk of substandard audit quality.

Fourth, since non-Big4 auditors are more able to compete with Big4 auditors in the private firm context, this context is generally characterized by a low level of concentration (Vanstraelen & Schelleman, 2017). Within the audit industry, lower levels of concentration are usually found to negatively impact the quality level (Francis, Michas, & Seavey, 2013; Kallapur, Sankaraguruswamy, & Zang, 2010; Newton, Wang, & Wilkins, 2013). This could be explained by the low level of market power often associated with a low market concentration as it makes auditors more dependent on one or several clients, increasing the incentive to compromise on audit quality (Huang, Chang, & Chiou, 2015). Moreover, as concentration leads to increased price competition, auditors that operate in a low concentration market may not be able to charge an adequate fee to provide a high-quality audit (Huang, et al., 2015). Finally, the overrepresentation of Big4 auditors that led to a high concentration in the listed firm market could also be the result of clients demanding high-quality audits, in this way driving the low-quality auditors out of the market (Francis, et al., 2013). The lower concentration in the private

firm market could, therefore, also result from less demand for audit quality as lower quality auditors will be able to survive. Naturally, this also leads to a lower average level of audit quality in this market.

Overall, due to the characteristics of a civil law private firm context, auditors receive few incentives to focus on delivering a high level of audit quality. Several studies have already examined this, which find the level of audit quality provided to private firms to be lower than to listed firms (Ball & Shivakumar, 2005; Burgstahler, et al., 2006). While most studies focusing on the difference between audited and non-audited financial statements of private firms still find the audited financial statements to be of higher quality (Clatworthy & Peel, 2013; Dedman & Kausar, 2012; Huguet & Gandía, 2016), Langli (2015) did not find a significant decline in financial statement quality when firms opted out of having an audit. Moreover, in contrast to studies focusing on listed companies, Hardies, Vandenhoute, and Breesch (2018) found no evidence of BigN auditors, industry specialists, and more experienced audit partners providing higher audit quality within a private firm context, suggesting that there is much less quality differentiation in this setting. Overall, these results confirm our argumentation that the provided audit quality level might be lower within a private firm context, especially in a civil law context with low litigation risk.

2.3 Substance quality and form quality

The studies examining audit quality in a private firm context, however, focus on what we label the *substance quality* of the financial statements, which indicates to what extent the financial statements faithfully represent the economic reality². A measure frequently used to capture

² While ‘substance over form’ is not considered a separate component of faithful representation anymore because it was considered redundant (FASB, 2010), we still consider the labels substance and form relevant for the purposes of our study to make a distinction between the two constructs of quality that we focus on in this study. Please note, however, that what we mean by these labels slightly deviates from the traditional definition of ‘substance over form’. While substance quality covers the overall ‘substance over form’ concept, form quality only focuses on whether all required information is provided in the financial statements, irrespective of the legal or economic reality besides GAAP.

substance quality is the level of accrual-based earnings management (e.g., Ball & Shivakumar, 2005; Burgstahler, et al., 2006; Dedman, et al., 2014; Huguet & Gandía, 2016). Following the arguments above and the results of prior studies, we formulate our first hypothesis as a null hypothesis since we expect the civil law private firm context to provide too little incentives for auditors to be concerned with increasing the substance quality of the financial statements. Formally, we thus posit:

Hypothesis 1a: In a civil law private firm context, auditors have no (positive) effect on the substance quality of the financial statements.

However, we do expect that auditors will improve what we call the *form quality* of the financial statements, even within a civil law private firm context. We define form quality as the extent to which the disclosures in the financial statements are made in accordance with GAAP. So form quality mainly captures whether the required information is provided in the financial statements, irrespective of whether this information is correct. To explain this more clearly, we refer to the general purpose of an audit as described in ISA 200:

“The purpose of an audit is to enhance the degree of confidence of intended users in the financial statements. This is achieved by the expression of an opinion by the auditor on **whether the financial statements are prepared**, in all material respects, **in accordance with an applicable financial reporting framework**. In the case of most general purpose frameworks, that opinion is on *whether the financial statements are presented fairly*, in all material respects, *or give a true and fair view* in accordance with the framework. An audit conducted in accordance with ISAs and relevant ethical requirements enables the auditor to form that opinion.” (IAASB, 2016, p. 72)

In general, the sentence we put in bold describes what we consider the form quality of the financial statements, i.e., do the financial statements include all required information

according to the financial reporting framework. The sentence we put in italics, on the other hand, is a description of what we consider substance quality, i.e., to what extent does the presented information provide a true and fair view of the economic reality.

So despite an overall lack of incentives to focus on substance quality in a civil law private firm context, we argue that auditors remain highly focused on the form quality of the financial statements. As owner-managers do benefit from the signaling value of auditing towards its outside stakeholders (i.e., using the audited financial statements as a quality label towards outsiders), we expect auditors to be highly concerned about form issues, being issues that are directly observable in the financial statements (in contrast to substance quality, which is only indirectly observable). By focusing on checking whether the required disclosures are made (and not necessarily whether they represent a true and fair view), outside stakeholders will perceive the financial statements to be of high quality, which is necessary for the signaling value of an audit. Moreover, by focusing on form, auditors could also avoid difficult decisions and disputes with management as such disputes often relate to the economic *substance* of a transaction (DeZoort & Salterio, 2001). Regarding form quality, disputes are less likely since disclosure requirements are overall very straightforward to interpret. Finally, by focusing on form quality, auditors keep signaling quality to the governing bodies as well, in this way potentially reducing the probability of being reviewed themselves and further reducing the litigation risk.

In sum, although a civil law private firm context provides little incentives to auditors on delivering a high level of substance quality, we argue that auditors will remain focused on increasing the form quality of the financial statements. Formally, we posit:

Hypothesis 1b: In a civil law private firm context, auditors have a positive effect on the form quality of the financial statements.

2.4 Auditor versus external accountant

Firms that do not appoint an auditor may rely on an external accountant to prepare and/or verify the financial statements. This could be considered a cost-effective decision for private firms in a civil law country. If the characteristics of this context make auditors focus mainly on form quality, one could argue that an auditor provides a service similar to an external accountant. More specifically, one of the primary roles of an external accountant is preparing the income statements and balance sheets in line with the applicable reporting framework, which therefore mainly relates to form quality (Broida & Flora, 1990). This service, also called a compilation service, does not provide assurance that there are no material modifications that should be made to the financial statements (AICPA, 2015). Accountants, therefore, do not have to focus on the substance quality of the financial statements. As we argued that an auditor receives little incentives to focus on substance quality in a civil law private firm context but will remain focused on form quality, it might be expected that an external accountant has similar effects on both the form quality and substance quality of the financial statements in comparison to auditors. We therefore posit:

Hypothesis 2a: In a civil law private firm context and in the absence of an auditor, external accountants have no (positive) effect on the substance quality of the financial statements.

Hypothesis 2b: In a civil law private firm context and in the absence of an auditor, external accountants have a positive effect on the form quality of the financial statements.

3. Methodology

3.1 Data

We use data from Belgian private firms to test our hypotheses. As a civil law country, the Belgian private firm market is characterized by a low litigation risk (Van Tendeloo & Vanstraelen, 2008), a low audit market concentration, and weak corporate governance (e.g., board members are often not independent and lack financial literacy, no audit committees, etc.). It, therefore, impersonates the contextual characteristics portrayed in the hypotheses development section. The Belgian context seems especially suitable to examine our research question as it has a highly standardized schedule for the financial statements and form quality can therefore be easily observed and compared.

A Belgian limited-liability firm is required to hire an auditor when it is considered a ‘large company’ according to Belgian company law. This is the case when the annual average workforce is higher than 100 or when at least two of the following thresholds are exceeded³: an annual average workforce of 50 employees, a balance sheet total of 3 650 000 EUR, and a turnover of 7 300 000 EUR (article 15 of the Belgian Company Legislation⁴). Only these large firms should prepare their financial statements according to the full model. SMEs have no audit requirement and also have fewer disclosures to make because they are allowed to report their accounting figures using the abbreviated model. If we would compare SMEs with large firms, a difference in form quality is evident since the amount of disclosures firms with an audit requirement (i.e., large firms) have to make is much higher than firms with an audit exemption (i.e., SMEs). Since form quality can be measured in a more detailed way when the full model is used (please refer to section 3.2.1), we start with focusing on large firms, being the firms that

³ These thresholds apply to all Belgian limited-liability firms. Firms exceeding these thresholds therefore always have to appoint an auditor, there is no exemption for example for firms that are part of a group.

⁴ The thresholds were changed after the focus period of this study. The current thresholds are: annual average workforce of 50 employees, balance sheet total of 4 500 000 EUR and turnover of 9 000 000 EUR.

are legally required to be audited. More specifically, we will compare large firms that comply with this requirement with large firms refraining from it. However, it could be argued that large firms not complying with the audit requirement might also be less likely to comply with other accounting and financial statement requirements and may thus, by default, have a lower form and substance quality⁵. Therefore we also use a second sample to test our hypotheses, in which we also include SMEs. For doing so, we also developed a measure that is not affected by whether the full or abbreviated model is used (as also indicated in section 3.2.1). For both samples, the data regarding our measure of form quality was hand-collected by scrutinizing each individual financial statement. The data regarding substance quality and the control variables were collected using the Bel-First database of Bureau van Dijk.

3.1.1 Sample 1 consisting only of large firms

The first sample thus consists of large firms (i.e., firms that are legally required to be audited according to Belgian company law). We started the sample selection with all firms that surpassed the legal audit criteria but refrained from hiring an auditor in 2012⁶ as these firms have to use the same schedule for the financial statements as audited firms, which is necessary to be able to compare the form and substance quality. 352 firms were identified, but only 213 used the full model while the others incorrectly used the abbreviated model for the financial statements and therefore had to be dropped from the sample. Moreover, 63 additional firms had

⁵ However, firms may also refrain from hiring an auditor because they consider their accountant to provide all services regarding financial statements quality and thus think an auditor does not add value, or they may simply consider an auditor too expensive in comparison to its value.

⁶ We chose 2012 as reference year because using data of more recent years might lead to noise due to recent regulatory changes in the Belgian audit environment: a) As from 2014, the International Standards on Auditing (ISAs) should be applied when auditing Belgian financial statements, which might have led to differences in audit quality just before and after the ISA adoption due to anticipation and interpretation bias; b) The thresholds to be legally required to hire an auditor slightly changed in 2015, which might have had several demand and supply effects just before and after this change; and c) In 2016, a different more independent public body became responsible for the supervision of auditors, which led to some anxiety from the date this change was communicated, and this might also be reflected in the level of audit quality. (Branson, Breesch, & Hardies, 2017)

to be removed from the sample because they still used the old template of the social balance (which we use to measure form quality). Finally, 11 firms had to be removed since they were clear outliers based on a Cook's distance and influential point analysis. We matched the 139 remaining firms with similar firms that hired an auditor using the Bel-First database of Bureau Van Dijk. In line with Ritter (1991), we matched based on industry and size. This led to a matched sample of 278 Belgian private firms, of which 139 hired an auditor and 139 did not.

In order to examine whether our subsamples are as identical as possible and only differ with respect to whether they appointed an auditor or not, we performed several t-tests in which we compared the means of the most important figures of both groups. More specifically, we compared the means of the variables⁷ SIZE, ROA, LEVERAGE, CASHFLOW, PROFIT, EQUITY, QUICK, and AGE of the firms that hire an auditor and those that do not. Every difference in means was found to be insignificant, supporting that our sample is matched in an effective way. The results of these tests regarding the variables that are also included in our regression analysis can be found in Table 3-Panel A.

3.1.2 Sample 2 consisting of large firms and SMEs

In order to expand our sample towards SMEs, we tried to identify an additional match from the SME context for each firm in sample 1 using the same database (Bel-First). Finding SMEs with an auditor proved most difficult since voluntary audit demand is very rare, which was already indicated by Sarens, Reheul, Van Caneghem, De Vlaminck, and Dierick (2012). Moreover, firms that voluntarily hire an auditor may consider financial reporting quality more important than firms that do not, and their financial statements may therefore already have a higher form and substance quality by default. Therefore, we focused on SMEs that were audited because

⁷ For variable definitions of SIZE, ROA, LEVERAGE and CASHFLOW, please refer to the control variables paragraph in the methodology section. PROFIT is defined as net income in euros, EQUITY is the level of equity in euros, QUICK is defined as the ratio of current assets to current liabilities and AGE is the firm's age in years.

they are part of a group of companies of which the parent company needs to prepare consolidated financial statements that need to be audited (i.e., referral). For these firms, appointing an auditor is less likely to be related to having a large focus on financial reporting quality since such subsidiaries generally have no incentive to focus more on financial reporting quality than other firms, at least not regarding their statutory financial statements. Mother companies usually do not rely on the statutory financial statements of their subsidiaries based on the local GAAP to value their performance and to make decisions. They generally also require alternative reporting from their subsidiaries. Improving the quality of the statutory financial statements (which we examine), therefore, does not add value to the subsidiaries themselves. Adding audited subsidiaries to our initial sample can therefore be considered highly valuable to gain more insight with respect to our research question. Of the 139 large firms with an auditor, we could find an SME match, also hiring an auditor, for 79 firms. Consequently, based on Bel-first, these 79 SMEs hiring an auditor are matched again with a counterpart SME without an auditor (these firms are also not required to hire an auditor), again based on industry and size. The 60 large firms for which we could not find a proper SME match are kept out of the sample for this additional analysis. This leads to the following composition of our new sample: 79 large firms with an auditor, 79 large firms without an auditor (these 158 large firms overlap with sample 1), 79 SMEs with an auditor, and 79 SMEs without an auditor. Figure 1 shows a graphical presentation of the composition of both samples.

Insert figure 1 about here

Since the shorter form quality measure, which can be used for the abbreviated model, is more robust over time (the items included in this measure were not affected by regulatory changes over time) in comparison to the form quality measure for the full model, we did not only collect the data of these 316 firms in 2012, but we also did this for the year 2018. While

this led to a potential sample of 632 observations, 66 observations were dropped⁸, resulting in the second sample having 566 firm-year observations.

3.2 Variables

3.2.1 Dependent variables

Most auditing studies measure audit quality by the level of discretionary accruals. As this proxy (negatively) grasps the actual quality of auditing and therefore the *substance quality*, we use it as our dependent variable SUBST_QUALITY. More specifically, we measure the extent of earnings management by relying on the cross-sectional Modified Jones model to estimate the discretionary accruals, which is in line with numerous other studies (e.g., Becker, et al., 1998; Frankel, Johnson, & Nelson, 2002; Ke, et al., 2015; Venkataraman, et al., 2008). The parameter estimates are predicted for each industry separately using the two-digit SIC codes to control for potential industry effects (Stockmans, Lybaert, & Voordeckers, 2010). Moreover, an out-of-sample approach is used to predict these parameter estimates because of our limited sample size (Stockmans, et al., 2010). As both income increasing and income decreasing discretionary accruals can be associated with a low level of substance quality, we take the absolute value of the predicted discretionary accruals estimate.

In order to measure the *form quality* of the financial statements, we rely on the Belgian GAAP, the Belgian company law, and the standardized financial statements schedules of the full model. Based on these sources, we developed a 28-item index FORM_QUALITY_FULL

⁸ 7 cases relate to companies that stopped their activities before 2018; for 2 cases, the FORM_QUALITY2 measure could not be applied since none of the items of this measure were applicable; for 31 cases, the level of substance quality could not be calculated since these observations did not report their revenue and therefore the level of discretionary accruals could not be calculated for these observations; for 22 cases, information regarding the control variables (mainly CASHFLOW and/or LEVERAGE) was not available; 4 observations were outliers.

of which each item is a dummy variable coded 1 if a certain form/disclosure requirement was fulfilled and 0 otherwise. Based on the figures in the financial statements, some requirements may not apply for every firm, and therefore we divided the index by the number of items that are applicable. Examples of items included in this index are the following: (1) whether the shareholders' capital mentioned in the financial statements is equal to the amount mentioned in the articles of association, (2) whether the division of the total workforce cost between men and women represents an actual difference in costs and is not just a pro-rata division of the total cost, (3) whether the depreciation rates are appropriately mentioned, (4) whether an annual report was included, (5) whether changes in provisions are correctly reported, etc. The complete list of items can be found in Table 1. Since these items are straightforward and leave no room for interpretation, the coding was done by a single coder. Table 2-Panel A presents an overview of the compliance rate of each item included in the FORM_QUALITY_FULL measure for the first sample consisting of large companies only. While the compliance rates are overall high, the compliance rate is 100% for only two items.

Insert Table 1 and Table 2 about here

Although very detailed and precise, the disadvantage of the measure FORM_QUALITY_FULL is that it is only applicable to firms that present their financial statements according to the full model. In order to make this measure applicable to SMEs reporting according to the abbreviated model, we developed a concise measure.

More specifically, based on the descriptives reported in Table 2-Panel A, we analyzed which items are also applicable to the abbreviated financial reporting model and are at the same time often not (correctly) fulfilled (to ensure variation). This leads to the following items: DATE_AM, JOINT_COMM, STAFF_COSTS_A, VALUATION_RULES_B, and

INVENTORY (for a description of these items, we refer to Table 1). However, DATE_AM requires a different data source (the Belgian Official Gazette) and therefore raises concerns regarding efficiency, replicability, and generalizability. We, therefore, do not include this item in our concise measure.

Creating the concise measure using the other remaining items proves very valuable. The correlation between FORM_QUALITY_FULL and this concise measure, named FORM_QUALITY_SHORT, is very high (0.75) and strongly significant ($p < 0.0001$) for sample 1. Table 2-Panel B presents the compliance rates of each item included in the FORM_QUALITY_SHORT measure for our second sample consisting of both large companies and SMEs.

3.2.2 Explanatory variable

The explanatory variable AUDITOR is a dummy variable coded 1 if the firm hired an auditor and 0 if it did not. ACCOUNTANT is a dummy variable as well, coded 1 if the firm did not hire an auditor but did hire an external accountant (which applies to 36 cases in sample 1 and 78 cases in sample 2). These variables are mutually exclusive. While it might be possible that firms with an auditor also appointed an external accountant to prepare the financial statements, only the variable AUDITOR is coded 1 in that case. We, therefore, mainly grasp whether the auditor or the accountant did the last check on the financial statements before they were being published.

3.2.3 Control variables

In line with most audit quality studies (e.g., Becker, et al., 1998; Burgstahler, et al., 2006; Van Tendeloo & Vanstraelen, 2008), we control for SIZE by the natural logarithm of total assets and for firm performance by the return on assets (ROA). Additionally, we also control for having reported a loss by the dummy variable LOSS (e.g., Ashbaugh, LaFond, & Mayhew,

2003; Callaghan, Parkash, & Singhal, 2009). As having debt may be an incentive to manage earnings and to signal the quality of the financial statements, we also control for LEVERAGE, defined as total debt to total assets (e.g., Burgstahler, et al., 2006; Van Tendeloo & Vanstraelen, 2008). We include the operational CASHFLOW divided by total assets as it is considered to affect the level of discretionary accruals (Becker, et al., 1998; Vander Bauwhede & Willekens, 2004). Moreover, we also include DISTRESS, a dummy variable coded 1 if the firm has negative equity and 0 otherwise, as distressed firms are more likely to go bankrupt and may therefore have a higher incentive to manage earnings. Finally, we also control for industry using four dummy variables PRODUCTION, CONSTRUCTION, SERVICES, and TRADE, coded 1 if the firm is part of the industry and 0 otherwise (Gaeremynck, Van Der Meulen, & Willekens, 2008; Van Tendeloo & Vanstraelen, 2008).

3.3 Model

The model we use to examine the influence of an auditor on the *form quality* of the financial statements is:

$$\text{FORM_QUALITY_FULL (or SHORT)} = \beta_0 + \beta_1\text{AUDITOR} + \beta_2\text{SIZE} + \beta_3\text{ROA} + \beta_4\text{LEVERAGE} + \beta_5\text{CASHFLOW} + \beta_6\text{LOSS} + \beta_7\text{DISTRESS} + \beta_8\text{PRODUCTION} + \beta_9\text{CONSTRUCTION} + \beta_{10}\text{SERVICES} + \varepsilon$$

In order to examine the effect of an auditor on the *substance quality* of the financial statements, we use the same model but change the dependent variable to SUBST_QUALITY. To examine the effect of external accountants on both form and substance quality, we add the variable ACCOUNTANT to both models. For the analyses regarding sample 2, we include the variable YEAR to control for year effects.

4. Results

4.1 *Descriptive statistics and correlations*

The descriptive statistics of our first sample consisting only of large firms (which therefore have an audit requirement) can be found in Table 3-Panel A. The means of SUBST_QUALITY do not significantly differ between firms that hired an auditor and those that did not. However, the mean of FORM_QUALITY_FULL and FORM_QUALITY_SHORT are found to be significantly higher for firms that hired an auditor in comparison to those that did not, which is in line with our expectations. Regarding the control variables, we do not see any significant difference in means between the firms that hired an auditor and those that did not, further supporting that this sample is matched in an effective way.

The last three columns of Table 3-Panel A show the descriptives of firms that did not hire an auditor. For this subsample of firms, we also see the mean value of FORM_QUALITY_FULL to be significantly higher for firms that appointed an accountant in comparison to firms that did not, although we do not observe such difference for FORM_QUALITY_SHORT. The t-test indicates a difference in means regarding SUBSTANCE_QUALITY as well, but it actually suggests that firms that appoint an accountant engage more in earnings management and therefore have a lower substance quality than firms without an accountant.

Insert Table 3 about here

Table 3-Panel B presents the descriptives of our second sample consisting of both large firms and SMEs. In line with the descriptives of the first sample, the mean values of SUBST_QUALITY are not found to differ significantly between firms that hired an auditor and those that did not. Similar to the first sample as well, the means of FORM_QUALITY_SHORT

are significantly different between audited and non-audited firms, suggesting a higher form quality for audited firms. For firms without an auditor, the t-tests indicate no significant differences in means regarding SUBST_QUALITY and FORM_QUALITY_SHORT among firms hiring an accountant and those not hiring an accountant. Regarding the control variables, the only difference in means relates to SIZE, which is in line with our expectations since the requirement to be audited is based on size criteria⁹.

The correlations that are presented in Table 4-Panel A (regarding sample 1) are in line with our first hypotheses as AUDITOR is significantly positively correlated with both FORM_QUALITY_FULL and FORM_QUALITY_SHORT but not with SUBST_QUALITY. In line with hypothesis 2b, we also find a significantly positive correlation between ACCOUNTANT and FORM_QUALITY_FULL for the subsample of firms that did not appoint an auditor, although the correlation between ACCOUNTANT and FORM_QUALITY_SHORT is insignificant. In line with the descriptives, we find ACCOUNTANT to be positively correlated with the level of earnings management.

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Insert Table 4 about here
.....

The correlations regarding sample 2 are presented in Table 4-Panel B. Similar to sample 1, the correlation between AUDITOR and FORM_QUALITY_SHORT is strongly significant and positive, while the correlation between AUDITOR and SUBST_QUALITY is not significant. Between ACCOUNTANT and the dependent variables, no significant correlations were found.

For both samples, the correlations between the explanatory and control variables and among the control variables never exceed the critical value of 0.8, and therefore there does not

⁹ The average size of non-audited firms amounts to 3.8 million in total assets while it amounts to 5.1 million for audited firms, indicating that the difference in size is not that large. Moreover, the actual impact of this difference in size will be limited since we also control for firm size in the regression models.

seem to be a multicollinearity threat. This is also supported by the variance inflation factors, which are all found to be lower than the critical value of 10 (the maximum value is 6.02).

4.2 Regression results

Our regression results to test hypotheses 1a and 1b are presented in Table 5. Model 1 examines the impact of an auditor on the substance quality of the financial statements (hypothesis 1a) for sample 1. As the coefficient of AUDITOR is found to be insignificant in this model, the null hypothesis 1a cannot be rejected, which is in line with our expectations. However, a significant coefficient of AUDITOR (on the 10% level) is found in model 2, which relates to substance quality within sample 2. While weak, this significant coefficient indicates that auditors may also improve the substance quality of the financial statements within a civil law private firm context. Therefore, we find no consistent results regarding H1a.

With respect to hypothesis 1b, models 3 and 4 of Table 5 show significantly positive associations between AUDITOR and both FORM_QUALITY_FULL and FORM_QUALITY_SHORT for sample 1. This finding is also confirmed within sample 2, in which the coefficient of AUDITOR is also significantly positive (model 5). Therefore, our results support hypothesis 1b by providing strong evidence regarding the positive impact of auditors on the form quality of the financial statements.

Insert Table 5 about here

The models to test hypotheses 2a and 2b are presented in Table 6. Regarding hypothesis 2a, model 1 of Table 6 shows a significantly positive association between ACCOUNTANT and SUBST_QUALITY for sample 1, indicating that the appointment of an accountant leads to more earnings management and thus lowers substance quality. Models 2 and 3 show that this

effect is completely attributed to income decreasing earnings management, suggesting that accountants mainly fulfill their role as tax advisors in private firms of civil law countries. Although this result was not confirmed for sample 2 as the coefficient of ACCOUNTANT is insignificant in model 4, these findings suggest that auditors and accountants serve different purposes within a civil law private firm context as well.

Regarding hypothesis 2b, the association between ACCOUNTANT and FORM_QUALITY_FULL (model 5) is significantly positive for sample 1. However, the effect is lower compared to auditors. An additional F-test also indicates that the coefficients of AUDITOR and ACCOUNTANT are significantly different. Auditors, therefore, have a stronger effect on the form quality of the financial statements than accountants, which suggests that accountants will mainly put the information they receive in a format consistent with GAAP while auditors will also check whether all required disclosures are made. This is further confirmed by the insignificant coefficients of ACCOUNTANT in both model 6 (FORM_QUALITY_SHORT, sample 1) and model 7 (FORM_QUALITY_SHORT, sample 2), while the coefficients of AUDITOR remain strongly significant and positive within these models.

.....
Insert Table 6 about here
.....

Overall, the results of both samples provide very clear evidence with respect to form quality. Auditors have a strongly significant and positive impact on the form quality of the financial statements. Besides statistical significance, this impact is also practically and economically relevant. An auditor increases the form quality of the financial statements by about 10%.

With respect to substance quality, the results are more ambiguous. While we initially did not expect auditors to have a significant effect on substance quality due to the characteristics

of the civil law private firm context, results appear to be inconsistent, ranging from a nonsignificant effect on substance quality to a (marginally) significant positive effect.

4.3 Additional analyses and robustness tests

As Big4 auditors are generally considered to be less inclined to compromise on their level of audit quality to protect their reputation, which is also supported in a private firm context (Cano-Rodríguez, 2010; Che, Hope, & Langli, 2017; Van Tendeloo & Vanstraelen, 2008), we also performed a regression in which we included AUDITOR_BIG4 and AUDITOR_NONBIG4 instead of AUDITOR (not reported but available upon request). While both variables do not have a significant effect on substance quality when using sample 1, AUDITOR_NONBIG4 does seem to improve substance quality when using sample 2, in this way contradicting the general assumption that Big4 auditors provide a higher level of audit quality. Regarding FORM_QUALITY, analyses on both samples indicate that Big4 as well as non-Big 4 auditors improve form quality. Within these analyses, the coefficient of AUDITOR_BIG4 is significantly larger than the one of AUDITOR_NONBIG4 when making use of sample 2. This seems to suggest that Big4 auditors also seem to focus on form quality for signaling (or preserving) their own reputational capital.

In order to examine the robustness of our findings and due to the recent criticism on the Modified Jones model (e.g., Chen, Hribar, & Melessa, 2018), we also used other measures for the level of substance quality (results not reported but available upon request). First, we applied the procedure suggested by Chen, Hribar, and Melessa (2018) to address concerns related to the two-stage estimating approach of accruals by regressing the residuals from the first step of the Modified Jones model on the combination of all independent variables from our main analysis as well as all the first-step regressors. The coefficients of AUDITOR, however, remained insignificant when applying this procedure. Moreover, we also used the level of

conditional conservatism in line with Cano-Rodríguez (2007, 2010) as an alternative. This analysis also yields no significant results with respect to the influence of an auditor on the substance quality of the financial statements. We also used a measure of substance quality that is not linked to accruals, namely the reporting of small profits (Burgstahler, et al., 2006; Van Tendeloo & Vanstraelen, 2008). Burgstahler and Dichev (1997) and Degeorge et al. (1999) already showed that US firms use accounting discretion to avoid reporting small losses (Burgstahler, et al., 2006). Next to the incentive of avoiding small losses, private firms will also favor small profits for tax reasons (especially in a context like Belgium, where the financial statements also serve as tax declaration). We, therefore, created a dummy variable `SMALL_PROFIT` coded 1 if the firm reported a small profit, which is operationalized as after-tax net income falling within the range of 1 percent of lagged total assets (Burgstahler, et al., 2006; Van Tendeloo & Vanstraelen, 2008). `AUDITOR` was found to be significant when applying this measure within sample 2. This indicates that auditors reduce the likelihood of reporting (unjustified) small profits and therefore do improve the substance quality of the financial statements. Overall, even after these robustness tests, the results regarding substance quality remain ambiguous and require future research.

Finally, in order to further examine the robustness of our findings, we ran several analyses in which we added new or alternative control variables (sales to measure `SIZE` instead of total assets, a dummy variable `PROFIT` (coded 1 in case the firm reported a profit) instead of `ROA`, the addition of the firm's `AGE`, etc.). Moreover, since `FORM_QUALITY` can be considered as a count variable, we also performed an ordered logit analysis as a robustness test. The results of these analyses (not reported but available upon request) are found to be completely in line with our reported results.

5. Conclusions

This study examines to what extent auditors increase financial reporting quality in a civil law private firm context. Due to the limited risk of litigation, the low demand for audit (quality), and the lack of governance structures like audit committees within this context, few incentives are given to auditors to focus on increasing the quality of the financial statements. We, therefore, expected auditors to have no significant impact on the *substance quality* (i.e., the extent to which the financial statements faithfully represent the economic reality) of the financial statements within such context. However, since private firms do benefit from the signaling value of auditing, we did expect auditors to remain focused on the *form quality* of the financial statements (i.e., the extent to which the required disclosures are made), especially since this would decrease the risk of litigation even further as the financial statements appear to be of high quality. As this would mainly turn the audit service into an accounting service, we also examined whether the appointment of an auditor still adds value over appointing an external accountant.

Two matched samples of 278 and 316 Belgian private firms respectively were used to test our hypotheses. Our results confirm that hiring an auditor is positively associated with the form quality of the financial statements. While appointing an external accountant was also found to be positively associated with the form quality of the financial statements, its effect is significantly lower than the effect of auditors. This suggests that auditors perform several checks regarding whether all required disclosures are made, while accountants mainly put the obtained information into a format consistent with GAAP. Concerning substance quality, the results are more ambiguous. Some of our models indicated that auditors do seem to improve the substance quality of the financial statements as well within a civil law private firm context. Still, future research is needed to examine this further.

Even though our findings should be considered exploratory, they contribute to the literature in several ways. First, while the value of external auditing was long considered to be lower for private firms due to client characteristics (e.g., lower agency costs, less complexity, etc.), this study shows that auditors significantly increase the financial reporting quality of such private firms, especially regarding form quality. Therefore, even though the results regarding substance quality are less consistent, stakeholders seem to benefit from audited financial statements within this context as well. In sum, this study adds to the discussion about whether audits should be mandatory in a private firm setting (Minnis & Shroff, 2017; Vanstraelen & Schelleman, 2017). Second, we also contribute to the studies that emphasize the importance of the institutional context when examining audit quality (Chen, et al., 2017; Francis & Dechow, 2008; Francis, et al., 2003; Kuo & Lee, 2018). The fact that the results regarding substance quality were not entirely consistent should be considered a stepping-stone towards examining how context, demand, and supply-side effects interact. Third, this study adds to the audit quality literature by also focusing on form quality as form quality is more closely related to the signaling role of auditors. By this focus and by developing a new measure for this construct, we were able to provide a more complete view regarding the incentives and actual contributions of auditors within a private firm environment. Finally, we also consider the inclusion of the external accountant as a valuable contribution as one might question the service differentiation between auditors and accountants in a civil law private firm context. While our results already revealed some insights into this matter, more research is needed to understand better the dynamics between accountants and auditors in such a context.

There are, of course, limitations associated with this study that indicate possibilities for future research as well. First, while the Belgian context was very suitable to test our hypotheses, the fact that our study was set in one country has implications for its generalizability. Although we expect the outcome regarding form and substance quality to be similar in other civil law

countries, nuances will exist. In countries with less standardized reporting standards, for example, form quality may be less observable for outsiders, and the focus on this form quality may, therefore, also decline. Moreover, the applicable auditing standards as well as the examined time period may also have an effect, especially since a large part of the data of this study relate to the period before the ISAs became required for all (private firm) audits in Belgium (they became required for all audits of financial statements related to periods ending on or after the 15th of December, 2014). While we partly covered this by including data from 2018 within our second sample, other specificities of the Belgian audit context (see Hardies, et al. (2018) for an overview) may still affect the overall generalizability. Moreover, as we could not distinguish the private firm effect from the civil law effect, a similar effect might also exist within common law countries. Although we expect this effect to be weaker due to the higher likelihood of litigation, it remains a valuable research opportunity.

Second, the more robust findings for form quality may also result from the fact that form quality can be more easily measured. Substance quality is only indirectly observable, while form quality is directly observable. Therefore, we encourage other researchers to consider different measures for both form and substance quality to further examine our research question and the role of such observability.

Finally, distinguishing between form quality and substance quality is not always clear-cut for disclosures made in the financial statements. While the form quality aspects measured in this study mainly relate to the notes of the financial statements whereas substance quality mainly relates to the balance sheet and the income statement, there is a direct link between the two. Therefore, there might be some mutual influence. Moreover, the decision of auditors to focus more on form versus substance quality is probably also less clear-cut than such labels suggest. Future studies might, therefore, also use a survey or qualitative research approach as

this would provide more insights regarding the actual intentions and efforts of auditors regarding the provision of form and substance quality.

References

- AICPA. (2015). *Guide to Financial Statement Services: Compilation, Review and Audit*. American Institute of CPA's. <https://us.aicpa.org> (accessed on January 24th 2022).
- Ashbaugh, H., LaFond, R., & Mayhew, B. W. (2003). Do Nonaudit Services Compromise Auditor Independence? Further Evidence. *Accounting Review*, 78(3), 611-639.
- Ball, R., & Shivakumar, L. (2005). Earnings quality in UK private firms: comparative loss recognition timeliness. *Journal of Accounting and Economics*, 39(1), 83-128.
- Bar-Yosef, S., & Livnat, J. (1984). Auditor selection: an incentive-signalling approach. *Accounting and Business Research*, 14(56), 301-309.
- Beattie, V., & Fearnley, S. (1995). The importance of audit firm characteristics and the drivers of auditor change in UK listed companies. *Accounting and Business Research*, 25(100), 227-239.
- Becker, C. L., Defond, M. L., Jiambalvo, J., & Subramanyam, K. R. (1998). The Effect of Audit Quality on Earnings Management. *Contemporary Accounting Research*, 15(1), 1-24.
- Branson, J., Breesch, D., & Hardies, K. (2017). *Auditing Brugge: die Keure*.
- Broida, M., & Flora, D. (1990). The status of computerized accounting software in small American businesses. *Journal of Small Business Strategy*, 1(1), 44-51.
- Burgstahler, D. C., Hail, L., & Leuz, C. (2006). The Importance of Reporting Incentives: Earnings Management in European Private and Public Firms. *The Accounting Review*, 81(5), 983-1016.
- Callaghan, J., Parkash, M., & Singhal, R. (2009). Going-Concern Audit Opinions and the Provision of Nonaudit Services: Implications for Auditor Independence of Bankrupt Firms. *Auditing: A Journal of Practice & Theory*, 28(1), 153-169.
- Cano-Rodríguez, M. (2007). Tamaño del auditor y calidad de auditoría en las empresas españolas no cotizadas. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, 36(135), 481-507.
- Cano-Rodríguez, M. (2010). Big auditors, private firms and accounting conservatism: Spanish evidence. *European Accounting Review*, 19(1), 131-159.
- Chaney, P. K., Jeter, D., & Shivakumar, L. (2004). Self-Selection of Auditors and Audit Pricing in Private Firms. *Accounting Review*, 79(1), 51-72.
- Che, L., Hope, O., & Langli, J. C. (2017). *Does the Big-4 effect exist when reputation and litigation risks are low? Evidence from audit-partner-auditee pair switches*. In 2017 UF International Conference on Assurance and Governance Proceedings.
- Chen, T. T., Zhang, F., & Zhou, G. (2017). Secrecy culture and audit opinion: Some international evidence. *Journal of International Financial Management & Accounting*, 28(3), 274-307.
- Chen, W., Hribar, P., & Melessa, S. (2018). Incorrect inferences when using residuals as dependent variables. *Journal of Accounting Research*, 56(3), 751-796.
- Choi, J. H., & Wong, T. J. (2007). Auditors' governance functions and legal environments: An international investigation. *Contemporary Accounting Research*, 24(1), 13-46.

- Clatworthy, M. A., & Peel, M. J. (2013). The impact of voluntary audit and governance characteristics on accounting errors in private companies. *Journal of Accounting and Public Policy*, 32(3), 1-25.
- Cohen, J., Krishnamoorthy, G., & Wright, A. (2010). Corporate Governance in the Post-Sarbanes-Oxley Era: Auditors' Experiences*. *Contemporary Accounting Research*, 27(3), 751-786.
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting Earnings Management. *Accounting Review*, 70(2), 193-225.
- Dedman, E., & Kausar, A. (2012). The impact of voluntary audit on credit ratings: evidence from UK private firms. *Accounting and Business Research*, 42(4), 397-418.
- Dedman, E., Kausar, A., & Lennox, C. (2014). The Demand for Audit in Private Firms: Recent Large-Sample Evidence from the UK. *The European Accounting Review*, 23(1), 1-23.
- Defond, M. L., Francis, J. R., & Hallman, N. J. (2018). Awareness of SEC enforcement and auditor reporting decisions. *Contemporary Accounting Research*, 35(1), 277-313.
- DeZoort, F. T., & Salterio, S. E. (2001). The Effects of Corporate Governance Experience and Financial-Reporting and Audit Knowledge on Audit Committee Members' Judgments. *Auditing: A Journal of Practice & Theory*, 20(2), 31-47.
- Dye, R. A. (1993). Auditing standards, legal liability, and auditor wealth. *Journal of Political Economy*, 101(5), 887-914.
- Fama, E. F., & Jensen, M. C. (1983a). Agency Problems and Residual Claims. *Journal of Law & Economics*, 26(2), 327-350.
- Fama, E. F., & Jensen, M. C. (1983b). Separation of Ownership and Control. *Journal of Law & Economics*, 26(2), 301-326.
- FASB. (2010). *Statement of Financial Accounting Concepts No. 8*. Financial Accounting Foundation. <https://www.fasb.org> (accessed on January 24th 2022).
- Francis, J. R. (2004). What do we know about audit quality? *The British Accounting Review*, 36(4), 345-368.
- Francis, J. R., & Dechow, W. (2008). The Joint Effect of Investor Protection and Big 4 Audits on Earnings Quality around the World. *Contemporary Accounting Research*, 25(1), 157-191.
- Francis, J. R., Khurana, I. K., & Pereira, R. (2003). The role of accounting and auditing in corporate governance and the development of financial markets around the world. *Asia-Pacific Journal of Accounting & Economics*, 10(1), 1-30.
- Francis, J. R., Michas, P. N., & Seavey, S. E. (2013). Does Audit Market Concentration Harm the Quality of Audited Earnings? Evidence from Audit Markets in 42 Countries*. *Contemporary Accounting Research*, 30(1), 325-355.
- Frankel, R. M., Johnson, M. F., & Nelson, K. K. (2002). The Relation between Auditors' Fees for Nonaudit Services and Earnings Management. *Accounting Review*, 77(4), 71-105.
- Gaeremynck, A., Van Der Meulen, S., & Willekens, M. (2008). Audit-Firm Portfolio Characteristics and Client Financial Reporting Quality. *The European Accounting Review*, 17(2), 243-270.
- Hardies, K., Vandenhoute, M.-L., & Breesch, D. (2018). An Analysis of Auditors' Going-Concern Reporting Accuracy in Private Firms. *Accounting Horizons*, 32(4), 117-132.
- Hope, G.-K., Thomas, W., & Vyas, D. (2011). Financial credibility, ownership, and financing constraints in private firms. *Journal of International Business Studies*, 42(7), 935-957.
- Hope, O.-K., Langli, J. C., & Thomas, W. B. (2012). Agency conflicts and auditing in private firms. *Accounting, Organizations and Society*, 37(7), 500-517.
- Hope, O.-K., & Vyas, D. (2017). Private company finance and financial reporting. *Accounting and Business Research*, 47(5), 506-537.

- Huang, T.-C., Chang, H., & Chiou, J.-R. (2015). Audit Market Concentration, Audit Fees, and Audit Quality: Evidence from China. *Auditing: A Journal of Practice & Theory*, 35(2), 121-145.
- Huguet, D., & Gandía, J. L. (2014). Cost of debt capital and audit in Spanish SMEs. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad*, 43(3), 266-289.
- Huguet, D., & Gandía, J. L. (2016). Audit and earnings management in Spanish SMEs. *BRQ Business Research Quarterly*, 19(3), 171-187.
- IAASB. (2016). *ISA 200: Overall objectives of the independent auditor and the conduct of an audit in accordance with international standards on auditing*. International Federation of Accountants. <https://www.ifac.org> (accessed on January 24th 2022).
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305-360.
- Kallapur, S., Sankaraguruswamy, S., & Zang, Y. (2010). Audit market concentration and audit quality. Available at SSRN 1546356
- Ke, B., Lennox, C. S., & Xin, Q. (2015). The Effect of China's Weak Institutional Environment on the Quality of Big 4 Audits. *Accounting Review*, 90(4), 1591-1619.
- Kuo, N. T., & Lee, C. F. (2018). Investor legal protection, capitalized development costs, and audit fees: A cross-country analysis. *Journal of International Financial Management & Accounting*, 29(1), 57-82.
- Langli, J. C. (2015). Evaluation of a change in the Norwegian legislation: the effects of making audit voluntary for small firms. *Memorandum, BI Norwegian Business School*; <https://home.bi.no/john.c.langli> (accessed on January 24th 2022).
- Langli, J. C., & Svanström, T. (2014). Audits of private companies. In D. Hay, W.R. Knechel, & M. Willekens (Eds.), *The Routledge companion to auditing*, 148-158, Taylor & Francis.
- Lennox, C. (2005). Management Ownership and Audit Firm Size. *Contemporary Accounting Research*, 22(1), 205-227.
- Lennox, C. S., & Pittman, J. A. (2011). Voluntary Audits versus Mandatory Audits. *Accounting Review*, 86(5), 1655-1678.
- Lin, J. W., & Hwang, M. I. (2010). Audit Quality, Corporate Governance, and Earnings Management: A Meta-Analysis. *International Journal of Auditing*, 14(1), 57-77.
- Maijoor, S. J., & Vanstraelen, A. (2006). Earnings management within Europe: the effects of member state audit environment, audit firm quality and international capital markets. *Accounting and Business Research*, 36(1), 33-52.
- Menon, K., & Williams, D. D. (1994). The Insurance Hypothesis and Market Prices. *Accounting Review*, 69(2), 327-342.
- Minnis, M., & Shroff, N. (2017). Why regulate private firm disclosure and auditing? *Accounting and Business Research*, 47(5), 473-502.
- Newton, N. J., Wang, D., & Wilkins, M. S. (2013). Does a lack of choice lead to lower quality? Evidence from auditor competition and client restatements. *Auditing: A Journal of Practice & Theory*, 32(3), 31-67.
- Niskanen, M., Karjalainen, J., & Niskanen, J. (2011). Demand for Audit Quality in Private Firms: Evidence on Ownership Effects. *International Journal of Auditing*, 15(1), 43-65.
- Palazuelos, E., Crespo, Á. H., & del Corte, J. M. (2018). Accounting information quality and trust as determinants of credit granting to SMEs: the role of external audit. *Small Business Economics*, 51(4), 861-877.
- Palazuelos, E., Crespo, Á. H., & del Corte, J. M. (2020). Auditing and credit granting to SMEs: an integrative perceptual model. *Managerial Auditing Journal*, 35(1), 152-174.

- Pomeroy, B., & Thornton, D. B. (2008). Meta-analysis and the Accounting Literature: The Case of Audit Committee Independence and Financial Reporting Quality. *European Accounting Review*, 17(2), 305-330.
- Ritter, J. R. (1991). The long-run performance of initial public offerings. *The Journal of Finance*, 46(1), 3-27.
- Sarens, G., Everaert, P., Verplancke, F., & De Beelde, I. (2015). Diversification of External Accountants Serving Small and Medium-sized Enterprises: Evidence from Belgium. *Australian Accounting Review*, 25(2), 155-174.
- Sarens, G., Reheul, A.-M., Van Caneghem, T., De Vlaminck, N., & Dierick, J. (2012). *De rol van de bedrijfsrevisor in bedrijven die niet verplicht zijn een bedrijfsrevisor aan te stellen*; Antwerpen: Maklu.
- Stockmans, A., Lybaert, N., & Voordeckers, W. (2010). Socioemotional Wealth and Earnings Management in Private Family Firms. *Family Business Review*, 23(3), 280-294.
- Sundgren, S., & Svanström, T. (2017). Is the Public Oversight of Auditors Effective? The Impact of Sanctions on Loss of Clients, Salary and Audit Reporting. *European Accounting Review*, 26(4), 787-818.
- Sundgren, S., & Svanström, T. (2022). Regulatory sanction risk and going-concern reporting practices: evidence for privately held firms. *Accounting and Business Research*, 52(4), 377-416.
- Vafeas, N. (2005). Audit Committees, Boards, and the Quality of Reported Earnings. *Comités de vérification, conseils d'administration et qualité des résultats publiés.*, 22(4), 1093-1122.
- Van Tendeloo, B., & Vanstraelen, A. (2008). Earnings Management and Audit Quality in Europe: Evidence from the Private Client Segment Market. *European Accounting Review*, 17(3), 447-469.
- Vander Bauwhede, H., & Willekens, M. (2004). Evidence on (the lack of) audit-quality differentiation in the private client segment of the belgian audit market. *The European Accounting Review*, 13(3), 501-522.
- Vanstraelen, A., & Schelleman, C. (2017). Auditing private companies: what do we know? *Accounting and Business Research*, 47(5), 565-584.
- Venkataraman, R., Weber, J. P., & Willenborg, M. (2008). Litigation Risk, Audit Quality, and Audit Fees: Evidence from Initial Public Offerings. *Accounting Review*, 83(5), 1315-1345.

Figure 1. Composition of samples

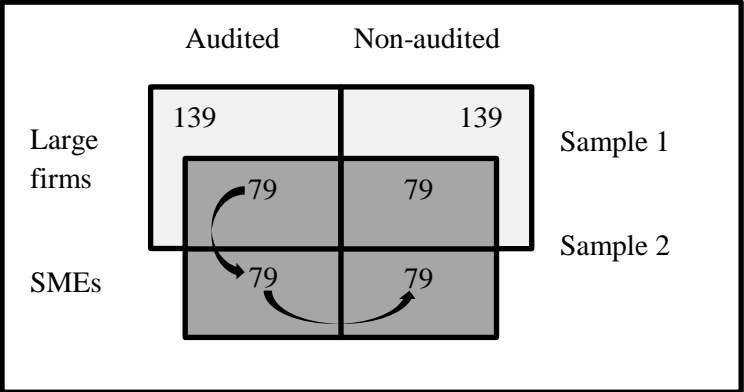


Table 1. Overview of the items included in the FORM_QUALITY_FULL measure

The list below mentions the items of the variable FORM_QUALITY_FULL, which all refer to a form/disclosure requirement of the financial statements. For each item, we provide a description as well as the specific location it relates to in the financial statements¹⁰. Each item is a dummy coded 1 if the form/disclosure requirement is fulfilled and 0 otherwise. Based on the figures in the financial statements, some requirements may not apply for every firm, and therefore we divided the score by the number of items that are applicable to calculate FORM_QUALITY_FULL. The items of the concise measure FORM_QUALITY_SHORT are marked with an asterisk in the table below.

Item	Description	Location
Capital	The level of capital mentioned in the financial statements is equal to the level mentioned in the firm's articles of association.	Code 100, C-cap 3.2 and 6.7.1
Shares	The number of shares is mentioned in the notes of the financial statements in the specific volume about shares.	Code 8702 and 8703, C-cap 6.7.1
Uncalled_capital	The level of uncalled capital mentioned in the financial statements is equal to the level mentioned in the firm's articles of association.	Code 101, C-cap 3.2 and 6.7.1
Date_AM	The date the annual meeting was held, as mentioned in the financial statements, is the date specified in the firm's articles of association.	C-cap 1
Board_members	All members of the board of directors published in the Belgian Official Gazette are also mentioned in the financial statements.	C-cap 2.1
VAT	The amount of VAT is mentioned in the notes of the financial statements in the specific volume about taxes.	Code 9145 and 9146, C-cap 6.13
Payroll_tax	The amount of payroll tax is mentioned in the notes of the financial statements in the specific volume about taxes.	Code 9147, C-cap 6.13
Deferred_tax	In case of a transferred loss, the amount of deferred tax assets is mentioned in the notes of the financial statements in the specific volume about taxes.	Code 9142 of C-cap 6.13, code 14 of C-cap 3.2
Secured_debt	The amount of secured debt is mentioned in the notes of the financial statements in the specific volume about rights and commitments not reflected in the balance sheet.	Code 9062, C-cap 6.9 and C-cap 6.14
Provisions	The amount of provisions is mentioned in the notes of the financial statements in the specific volume about operating results.	Code 635, C-cap 6.10
Impairments	The amount of impairments is mentioned in the notes of the financial statements in the specific volume about operating results.	Code 631/4, C-cap 6.10

¹⁰ A template of Belgian financial statement can be found via the following link: https://www.cbn-cnc.be/system/files/2020-01/Annual%20accounts%20Companies%20with%20share%20capital_Complete%20model_1.pdf

Cash_inv	The amount of cash investments is mentioned in the notes of the financial statements in the specific volume about cash investments and/or the specific volume about shares (in case of own shares).	Code 50/53, C-cap 6.5.1/6.6
Financial_FA	The amount of financial fixed assets is mentioned in the notes of the financial statements in the specific volumes about financial fixed assets.	Code 28, C-cap 6.4, 6.5.1 and 6.15
Legal_reserve	The legal reserve on profits was calculated correctly and mentioned in the financial statements in the specific volume about profit appropriation.	Code 130, C-cap 3.2
Social_balance	The social balance is included in the financial statements as part of the notes in case the firm has employees.	C-cap 10
Joint_comm*	The social balance mentions the joint committee.	C-cap 10
Staff_costs_a*	The total amount of staff costs mentioned in the social balance is equal to the amount of staff costs mentioned in the profit and loss account.	Code 1023 of C-cap 10 and Code 62 of C-cap 4
Staff_costs_b	The social balance makes a division of total staff cost between men and women.	C-cap 10
Staff_costs_c	The division of total staff cost between men and women represents an actual difference in costs and is not just a pro-rata division of the total cost.	Code 1023, C-cap 10
Temp_empl	The social balance mentions the required additional information regarding temporary employees.	Code 9096, 9097, 9098, and 617 of C-cap 6.10 and code 150, 151, and 152 of C-cap 10
Valuation_rules_a	The notes of the financial statements mention the applied valuation rules.	C-cap 6.19
Valuation_rules_b*	For firms that use the template of the Belgian National Bank to report their valuation rules, specific options are clearly selected for the elements in which the template provides several options one has to choose from.	C-cap 6.19
Depr_rates	A depreciation rate for every item of property, plant, and equipment is mentioned in the valuation rules.	C-cap 6.19
Inventory*	The specific valuation method of inventory (FIFO, LIFO,...) is mentioned in the valuation rules.	C-cap 6.19
Annual_report	An annual report is added to the financial statements.	C-cap 7
Loss_AR	A justification for the assumption of continuity is mentioned in the annual report in case the firm incurred a loss for two consecutive years or in case the firm has a transferred loss on the balance sheet.	C-cap 7
Comp_fig_a	The comparative figures of the previous financial year mentioned in the financial statements are exactly the same as the figures mentioned in the actual financial statements of the previous financial year, unless the financial statements mention that the figures have been changed.	C-cap 1, C-cap 3, C-cap 4
Comp_fig_b	The comparative figures of the previous financial year mentioned in the financial statements are different than the figures mentioned in the actual financial statements of the previous financial year in case the financial statements mention that the comparative figures have been changed.	C-cap 1, C-cap 3, C-cap 4

* item is also included in the concise measure FORM_QUALITY_SHORT

Table 2. Descriptive statistics of the items included in the FORM_QUALITY_FULL and FORM_QUALITY_SHORT measure

Panel A. Items included in the FORM_QUALITY_FULL measure for sample 1 consisting only of large firms (n = 278)

	Capital	Shares	Uncalled _capital	Date_ AM	Board_ members	VAT	Payroll_ tax
Number of cases	264	237	13	199	272	278	272
Compliance rate[†]	97.73%	86.08%	100.00%	56.78%	93.75%	92.45%	95.22%
	Deferred _tax	Secured _debt	Provisions	Impair- ments	Cash_ inv	Financial_ FA	Legal_ reserve
Number of cases*	32	118	102	139	75	201	23
Compliance rate[†]	50.00%	94.92%	86.27%	99.28%	97.33%	100.00%	86.96%
	Social_ balance	Joint_ comm**	Staff_ costs_a**	Staff_ costs_b	Staff_ costs_c	Temp_ empl	Valuation_ rules_a
Number of cases*	271	271	271	264	228	132	278
Compliance rate[†]	98.15%	60.52%	81.92%	82.95%	56.58%	91.67%	93.88%
	Valuation_ rules_b**	Depr_ rates	Inventory**	Annual_ report	Loss_AR	Comp_ fig_a	Comp_ fig_b
Number of cases*	199	262	234	278	31	264	14
Compliance rate[†]	70.85%	91.60%	75.21%	68.71%	48.39%	85.61%	14.29%

Panel B. Items included in the FORM_QUALITY_SHORT measure for sample 2 consisting of both large firms and SMEs (n = 566)

	Joint_comm	Staff_costs_a	Valuation_rules_b	Inventory
Number of cases*	561	561	390	486
Compliance rate[†]	68.27%	84.85%	70.26%	73.25%

*Number of cases for which the requirement is applicable. See Table 1 for an overview of the requirements.

**Item also included in the measure FORM_QUALITY_SHORT

[†]Compliance rate = the percentage of cases that comply with the requirement if they are required to do so.

Table 3. Descriptive statistics*Panel A.* Sample 1 consisting only of large firms (n = 278)

Variable	AUDITOR (yes/no)	Mean	p-value yes - no	ACCOUNTANT [†] (yes/no)	Mean	p-value yes - no
SUBST_QUALITY	no	0.09	0.75	no	0.08	0.05**
	yes	0.09		yes	0.12	
FORM_QUALITY_ FULL	no	0.79	0.00***	no	0.78	0.01**
	yes	0.88		yes	0.83	
FORM_QUALITY_ SHORT	no	0.68	0.01***	no	0.66	0.25
	yes	0.76		yes	0.72	
SIZE	no	8.85	0.77	no	8.80	0.10*
	yes	8.87		yes	8.99	
ROA	no	7.17	0.20	no	6.74	0.32
	yes	5.35		yes	8.77	
LEVERAGE	no	59.43	0.44	no	61.04	0.21
	yes	60.80		yes	54.66	
CASHFLOW	no	0.07	0.17	no	0.05	0.05**
	yes	0.04		yes	0.13	
LOSS	no	0.13	0.25	no	0.14	0.37
	yes	0.18		yes	0.09	
DISTRESS	no	0.01	0.65	no	0.02	0.41
	yes	0.02		yes	0.00	

Panel B. Sample 2 consisting of both large firms and SMEs (n = 566)

Variable	AUDITOR (yes/no)	Mean	p-value yes - no	ACCOUNTANT [†] (yes/no)	Mean	p-value yes - no
SUBST_QUALITY	no	0.02	0.12	no	0.02	0.44
	yes	0.02		yes	0.03	
FORM_QUALITY_	no	0.68	0.00***	no	0.68	0.77
	SHORT	yes		0.81	yes	
SIZE	no	8.25	0.00***	no	8.27	0.44
	yes	8.53		yes	8.19	
ROA	no	10.44	0.32	no	10.17	0.46
	yes	11.40		yes	11.16	
LEVERAGE	no	16.22	0.54	no	16.35	0.89
	yes	17.61		yes	15.86	
CASHFLOW	no	0.09	0.37	no	0.08	0.61
	yes	0.09		yes	0.09	
LOSS	no	0.15	0.41	no	0.16	0.69
	yes	0.18		yes	0.14	
DISTRESS	no	0.00	0.32	no	0.00	0.32
	yes	0.00		yes	0.00	

SUBST_QUALITY measures the level of absolute discretionary accruals according to the cross-sectional Modified Jones model. FORM_QUALITY_FULL measures the form quality of the financial statements (reported according to the full model) and consists of 28 items (see Table 1 for more information). FORM_QUALITY_SHORT is a concise measure of form quality that consists of 4 items and can also be used for financial statements prepared according to the abbreviated model. AUDITOR is a dummy variable coded 1 if the firm appointed an auditor and 0 if it did not. ACCOUNTANT is a dummy variable coded 1 if the firm did not appoint an auditor but did hire an external accountant.

SIZE is defined as the natural logarithm of total asset, ROA measures firm performance by return on total assets, LEVERAGE is defined as total debt to total assets, CASHFLOW is defined as operating cashflow divided by total assets, LOSS is a dummy variable coded 1 if the firm reported a loss, DISTRESS is a dummy variable coded 1 if the firm has negative equity.

Table 4. Correlations

Panel A. Correlation table of sample 1 consisting only of large firms (n = 278)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) FORM_QUALITY_FULL	1.00														
(2) FORM_QUALITY_SHORT	0.72***	1.00													
(3) SUBST_QUALITY	-0.01	-0.05	1.00												
(4) AUDITOR	0.37***	0.16***	0.02	1.00											
(5) ACCOUNTANT[†]	0.18**	0.09	0.19**	.	1.00										
(6) SIZE	-0.02	-0.00	-0.12*	0.02	0.15*	1.00									
(7) ROA	0.04	0.01	0.15**	-0.08	0.08	-0.03	1.00								
(8) LEVERAGE	0.02	0.01	-0.03	0.03	-0.11	-0.15**	-0.10*	1.00							
(9) CASHFLOW	-0.04	-0.11*	-0.11*	-0.08	0.21**	0.04	0.40***	-0.02	1.00						
(10) LOSS	-0.06	-0.02	0.01	0.07	-0.08	-0.12**	-0.39***	0.09	-0.14**	1.00					
(11) DISTRESS	-0.07	-0.11*	0.08	0.03	-0.07	0.03	-0.29***	-0.31***	-0.14**	0.24***	1.00				
(12) PRODUCTION	0.07	0.06	-0.06	0.01	0.09	0.12*	0.03	-0.02	0.11*	0.05	0.02	1.00			
(13) CONSTRUCTION	0.04	0.02	0.09	-0.02	0.00	0.06	0.06	-0.04	-0.05	-0.12*	-0.05	-0.14**	1.00		
(14) SERVICES	-0.07	-0.02	0.01	0.00	0.10	-0.28***	0.04	0.25***	0.13**	0.03	0.04	-0.15**	-0.13**	1.00	
(15) TRADE	-0.04	-0.04	-0.02	0.01	-0.13	0.07	-0.09	-0.12**	-0.13**	0.02	-0.01	-0.54***	-0.45***	-0.47***	1.00

Panel B. Correlation table of sample 2 consisting of both large firms and SMEs (n = 566)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) FORM_QUALITY_SHORT	1.00													
(2) SUBST_QUALITY	-0.02	1.00												
(3) AUDITOR	0.23***	-0.07	1.00											
(4) ACCOUNTANT[†]	0.02	0.05	.	1.00										
(5) SIZE	0.03	-0.07	0.18***	-0.05	1.00									
(6) ROA	-0.04	0.23***	0.04	0.04	-0.01	1.00								
(7) LEVERAGE	-0.03	0.01	0.03	-0.01	0.27***	-0.24***	1.00							
(8) CASHFLOW	-0.06	0.32***	0.04	0.03	0.11***	0.88***	-0.06	1.00						
(9) LOSS	-0.02	-0.03	0.03	-0.02	-0.20***	-0.43***	0.05	-0.52***	1.00					
(10) DISTRESS	-0.08*	-0.04	-0.04	-0.04	0.10**	-0.06	-0.02	-0.03	0.09**	1.00				
(11) PRODUCTION	0.06	0.13***	-0.03	-0.16***	0.06	0.06	0.01	0.12***	-0.05	0.13***	1.00			
(12) CONSTRUCTION	0.03	0.03	-0.01	-0.07	0.04	0.06	-0.03	0.09**	-0.07	-0.02	-0.12***	1.00		
(13) SERVICES	0.01	0.05	0.00	0.00	-0.04	-0.01	0.10**	-0.03	0.01	-0.02	-0.12***	-0.14***	1.00	
(14) TRADE	-0.07	-0.14***	0.03	0.15**	-0.04	-0.08*	-0.06	-0.11***	0.07	-0.06	-0.45***	-0.52***	-0.52***	1.00

*, **, *** indicate significance at the 10%, 5% and 1% levels respectively (two-tailed). [†]The correlations regarding ACCOUNTANT are calculated on the subset of firms with no auditor.

Table 5. Regression results with respect to H1a and H1b

	Model (1) SUBST_ QUALITY (sample 1)	Model (2) SUBST_ QUALITY (sample 2)	Model (3) FORM_ QUALITY_ FULL (sample 1)	Model (4) FORM_ QUALITY_ SHORT (sample 1)	Model (5) FORM_ QUALITY_ SHORT (sample 2)
AUDITOR	0.0039 (0.0103)	-0.0032* (0.0019)	0.0909*** (0.0134)	0.0777** (0.0306)	0.1327*** (0.0226)
SIZE	-0.0167 (0.0116)	-0.0033** (0.0014)	-0.0117 (0.0129)	-0.0001 (0.0269)	-0.0075 (0.0167)
ROA	0.0022** (0.0009)	-0.0006*** (0.0002)	0.0004 (0.0007)	0.0007 (0.0016)	0.0003 (0.0023)
LEVERAGE	0.0000 (0.0002)	0.0000 (0.0000)	0.0001 (0.0003)	-0.0004 (0.0007)	-0.0001 (0.0005)
CASHFLOW	-0.096 (0.0626)	0.1795*** (0.0254)	-0.0253 (0.0438)	-0.2083** (0.0937)	-0.3996 (0.3011)
LOSS	0.0138 (0.0163)	0.0119*** (0.0030)	-0.0234 (0.0203)	0.0063 (0.0427)	-0.0567 (0.0354)
DISTRESS	0.0973* (0.0588)	-0.0310 (0.0228)	-0.0389 (0.0929)	-0.2956** (0.1173)	-0.4484* (0.2704)
PRODUCTION	-0.0081 (0.0120)	0.0082** (0.0033)	0.0262 (0.0210)	0.0559 (0.0446)	0.0933** (0.0390)
CONSTRUCTION	0.0212 (0.0177)	0.0021 (0.0029)	0.0165 (0.0236)	0.0171 (0.0477)	0.0475 (0.0343)
SERVICES	-0.0061 (0.0204)	0.0056* (0.0029)	-0.0228 (0.0187)	0.0205 (0.0521)	0.0219 (0.0340)
YEAR		0.0027 (0.0023)			0.0321 (0.0269)
Intercept	0.2193** (0.1096)	0.0359*** (0.0114)	0.8896*** (0.1240)	0.7030*** (0.2545)	0.7537*** (0.1349)
R²	0.0952	0.1724	0.1641	0.0604	0.0845
F	2.16**	10.49***	5.68***	2.18**	4.65***
n	278	566	278	275	566

*, **, *** indicate significance at the 10%, 5% and 1% levels respectively (two-tailed); Sample 1 consists of large firms only, sample 2 consists of both large firms and SMEs

SUBST_QUALITY measures the level of absolute discretionary accruals according to the cross-sectional Modified Jones model. FORM_QUALITY_FULL measures the form quality of the financial statements (reported according to the full model) and consists of 28 items (see Table 1 for more information). FORM_QUALITY_SHORT is a concise measure of form quality that consists of 4 items and can also be used for financial statements prepared according to the abbreviated model. AUDITOR is a dummy variable coded 1 if the firm appointed an auditor and 0 if it did not.

SIZE is defined as the natural logarithm of total asset, ROA measures firm performance by return on total assets, LEVERAGE is defined as total debt to total assets, CASHFLOW is defined as operating cashflow divided by total assets, LOSS is a dummy variable coded 1 if the firm reported a loss, DISTRESS is a dummy variable coded 1 if the firm has negative equity. PRODUCTION, CONSTRUCTION, SERVICES, and TRADE (reference category) are dummy variables coded 1 if the firm is part of the indicated industry. YEAR is a dummy variable coded 1 if the data relates to the year 2018 and 0 if it relates to the year 2012.

Table 6. Regression results with respect to H2a and H2b

	Model (1) SUBST_ QUALITY (sample 1)	Model (2) SUBST_ QUALITY (increasing) (sample 1)	Model (3) SUBST_ QUALITY_ (decreasing) (sample 1)	Model (4) SUBST_ QUALITY (sample 2)	Model (5) FORM_ QUALITY_ FULL (sample 1)	Model (6) FORM_ QUALITY_ SHORT (sample 1)	Model (7) FORM_ QUALITY_ SHORT (sample 2)
AUDITOR	0.0167 (0.0107)	0.0014 (0.0127)	0.0134 (0.0098)	-0.0022 (0.0021)	0.1055*** (0.0158)	0.0914*** (0.0345)	0.1398*** (0.0246)
ACCOUNTANT	0.0520*** (0.0180)	0.0215 (0.0220)	0.0351** (0.0144)	0.0036 (0.0030)	0.0593*** (0.0211)	0.0536 (0.0491)	0.0257 (0.0352)
SIZE	-0.0201* (0.0115)	0.0157 (0.0180)	-0.0146 (0.0106)	-0.0032** (0.0014)	-0.0155 (0.0130)	-0.0034 (0.0272)	-0.0075 (0.0167)
ROA	0.0023** (0.0009)	0.0049*** (0.0015)	-0.0027* (0.0015)	-0.0006*** (0.0002)	0.0005 (0.0007)	0.0007 (0.0016)	0.0003 (0.0023)
LEVERAGE	0.0002 (0.0002)	0.0004 (0.0003)	-0.0002 (0.0002)	0.0000 (0.0000)	0.0002 (0.0003)	-0.0004 (0.0007)	-0.0001 (0.0005)
CASHFLOW	-0.1056* (0.0617)	-0.4137*** (0.1162)	0.5013*** (0.0967)	0.1793*** (0.0253)	-0.0362 (0.0468)	-0.2178** (0.0970)	-0.4014 (0.3012)
LOSS	0.0141 (0.0158)	-0.0318* (0.0176)	0.0374** (0.0162)	0.0119*** (0.0030)	-0.0231 (0.0202)	0.0064 (0.0429)	-0.0564 (0.0354)
DISTRESS	0.1072* (0.0579)	0.1422** (0.0635)	0.0253 (0.0499)	-0.0304 (0.0228)	-0.0276 (0.0888)	-0.2843** (0.1152)	-0.4439 (0.2706)
PRODUCTION	-0.0110 (0.0118)	0.0011 (0.0146)	-0.0219 (0.0169)	0.0087*** (0.0033)	0.0230 (0.0206)	0.0532 (0.0449)	0.0969** (0.0393)
CONSTRUCTION	0.0203 (0.0172)	-0.0108 (0.0216)	0.0004 (0.0171)	0.0023 (0.0029)	0.0155 (0.0235)	0.0165 (0.0476)	0.0493 (0.0344)
SERVICES	-0.0130 (0.0186)	0.0087 (0.0225)	-0.0138 (0.0174)	0.0057** (0.0029)	-0.0306 (0.0189)	0.0138 (0.0525)	0.0224 (0.0340)
YEAR				0.0029 (0.0023)			0.0335 (0.0269)
Intercept	0.2330** (0.1096)	-0.1101 (0.1702)	0.1602 (0.1003)	0.0347*** (0.0114)	0.9052*** (0.1235)	0.7158*** (0.2549)	0.7450*** (0.1355)
R²	0.1239	0.4806	0.5273	0.1745	0.1860	0.0644	0.0853
F	3.17***	2.29**	10.91***	9.74***	5.27***	2.11**	4.30***
n	278	139	139	566	278	275	566

*, **, *** indicate significance at the 10%, 5% and 1% levels respectively (two-tailed); Sample 1 consists of large firms only, sample 2 consists of both large firms and SMEs.

SUBST_QUALITY measures the level of absolute discretionary accruals according to the cross-sectional Modified Jones model. FORM_QUALITY_FULL measures the form quality of the financial statements (reported according to the full model) and consists of 28 items (see Table 1 for more information). FORM_QUALITY_SHORT is a concise measure of form quality that consists of 4 items and can also be used for financial statements prepared according to the abbreviated model. AUDITOR is a dummy variable coded 1 if the firm appointed an auditor and 0 if it did not. ACCOUNTANT is a dummy variable coded 1 if the firm did not appoint an auditor but did hire an external accountant.

SIZE is defined as the natural logarithm of total asset, ROA measures firm performance by return on total assets, LEVERAGE is defined as total debt to total assets, CASHFLOW is defined as operating cashflow divided by total assets, LOSS is a dummy variable coded 1 if the firm reported a loss, DISTRESS is a dummy variable coded 1 if the firm has negative equity. PRODUCTION, CONSTRUCTION, SERVICES, and TRADE (reference category) are dummy variables coded 1 if the firm is part of the indicated industry. YEAR is a dummy variable coded 1 if the data relates to the year 2018 and 0 if it relates to the year 2012.