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Accounting and Audit

Information content of the unqualified audit report on investors value

Abstract

This thesis investigates whether investors value the information in an unqualified audit report, prior research finds mixed results. Four independent variables are used to measure the information content of the report. The three-day abnormal returns are used to measure investor response to the independent variable in unqualified audit reports issued from 2012 to 2021. Also, there are two robustness tests performed, one with a broader period and one with the abnormal trading volume as the dependent variable. The results find evidence that the file size and the number of words decrease the investors' value of the report. The inclusion of CAMs does not impact investors' decision-making, and the inclusion of explanatory language increases investors' value. Overall, the information content of an unqualified audit report does influence investors' decisions. This study contributes to the academic literature by expanding the current literature on the information content of the audit report for investors, specifically looking at the length, CAMs, and explanatory language. This is relevant for standard setters because it makes clear what parts of the audit report are relevant for investors.

Keywords: Investors, Stock price, Trade volume, Market reaction, Unqualified audit report, File size, Number of words, Critical Audit Matters, Explanatory language.

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1 Introduction

Although there is an ongoing debate regarding whether investors value the information in the unqualified audit report, where most find the audit report has little to no value for investors (Cohen commission, 1978; Coram et al., 2011; Pound, 1981; Mock et al., 2013; Moores, 2009) the length of the report is increasing over time (Hayes et al., 2021). If investors do not value the disclosed information, then disclosing more in the report would not have an effect. This thesis aims to investigate this contradictory phenomenon. The Public Company Accounting Oversight Board (PCAOB) constantly strives to improve the information value of the audit report. So, they invent Critical Audit Matters (Hereafter: CAMs) and explanatory language, which provide specific extra information related to certain accounts (PCAOB, 2017).

As stated in AS 3105 of PCAOB are four types of audit opinions: unqualified opinion qualified opinion, adverse opinion, and disclaimer of opinion. An unqualified opinion is the most common type and states that the financial statements present a true and fair view of the company's financial position and comply with the applicable accounting standards, with no material misstatements or concerns found during the audit. A qualified opinion is issued when the auditor encounters a limitation in the scope of the audit or identifies a departure from the accounting standards, but these problems are not persuasive. An adverse opinion is issued when the financial statements do not present a true and fair view or do not comply with the accounting standards. Finally, a disclaimer of opinion is issued when the auditor is unable to express an opinion on the financial statements due to significant limitations in the scope of the audit or insufficient evidence. The unqualified opinion is issued the most and contains the least information. This thesis will focus only on unqualified opinions, with the research question: “Does the information content of the audit report influence the decision-making for the users?” The current literature is ambiguous whether investors value more information in unqualified opinions. Some studies find that more words are useful for investors (Leuz and Schrand, 2009; Li and Zhao, 2016), while others find that investors does not value the extra information in larger files (Lee, 2012; Lourghan and Mcdonand, 2014). Recent literature on CAMs suggests that investors do not value the CAM section in a report (Burke et al., 2023; Spaargaren et al., 2022). Czerney et al. (2019) find that the explanatory section has little to no increased usefulness for investors, which is consistent with the conclusion of Gold et al. (2012).

This study investigates US publicly traded firms from 2012 to 2021, with a sample of 7.507 unique firms and 45.187 firm-year observations. The investors' reaction is measured by the Cumulative Abnormal Return (hereafter: CAR), where a higher CAR indicates that the disclosure contains more value for investors. The 3-day absolute abnormal return centered around the publication date is used to calculate CAR. The normal return is defined based on the firm's relation to the market by conducting an OLS regression where the firm return is explained in terms of the market returns. The monthly returns from 2011 to 2022 are compared to the market returns. The abnormal return is calculated as the difference between the daily return and the normal return. The information content of the unqualified audit report is measured using four different

variables: file size, number of words, inclusion of CAMs, and inclusion of explanatory language in the report. Additionally, the period for measuring CAR is extended in this analysis, defining CAR as the abnormal returns from one day before to three days after the publication date. Furthermore, another often-used variable, abnormal trade volume, is used for the second robustness test.

Results indicate that investors respond to the information content of the audit report. They value the file size and the number of words negatively but the explanatory language positively. This paper suggests CAMs do not have positive nor negative value for investors.

The findings of this paper are especially interesting for standard setters, auditors, and (potential) investors. It helps standard setters gain insight into what parts investors find important, which can guide them in making decisions on how an audit report should look. Additionally, this study is relevant for auditors as they can observe whether investors value more information in the audit report, allowing them to optimize the usefulness of the audit report and its efficiency. Moreover, (potential) investors can utilize this information to understand what information other investors value and gain a competitive advantage.

This study investigates three different types of information content of the audit report, the number of words, the inclusion of CAMs, and an explanatory section. The number of words has not been previously investigated, and combining these three measurements provides new insights, contributing to the academic literate. While some research on CAMs looks at the UK or looks only at large, accelerated fillers in the US, this paper examines all publicly traded US firms. Therefore, this research contributes to the academic literature by expanding the scope of previous work.

After this introduction, the remainder of this paper proceeds as follows. The next chapter provides a theoretical background on parts of the audit report and investors' decision-making. In Chapter 3, the methodology and research design are discussed, describing how the data is obtained and used to derive the results. These results are represented and discussed in Chapter 4, with additional robustness tests. Lastly, Chapter 5 presents the conclusion, including the overall findings, potential limitations of this study, and suggestions for further research. the overall findings, potential limitations of this study, and suggestions for further research.

2 Literature Review

The following chapter describes an overview of current theories and concepts derived from prior literature on investors' valuation and decision-making regarding different parts of the audit reports. First, it examines previous research on investors' valuation of the number of words and file size of an annual report. Second, it explores the literature on CAMs, and lastly, it investigates the use of explanatory language. Based on these papers the hypotheses are defined.

2.1 Report length

Gray et al. (2012) found financial statement users value the audit, but do not read the entire auditor's report. This raises the question whether increasing the length helps decrease the expectation gap and provide more information to investors. There is limited research on the length of the unqualified audit report but there are studies on the annual statement length. Since the audit report is a part of the annual statement, conclusions drawn from the annual statement can provide insights for the audit report as well.

While studies have found that investors value the annual report (Asthana et al., 2004; Epstein & Pava, 1994; Griffin, 2003; Li, 2006), there is mixed evidence as to whether longer reports increase investors' informativeness. There is also controversy regarding how to determine the length of an annual report. Leuz and Schrand (2009) measure the length by using the number of pages as a proxy, while Loughran and Mcdonald (2014) use the file size of the annual report as a proxy for readability. Leuz and Schrand (2009) found that firms with higher financial needs were disclosing more. Additionally, bigger disclosures are made during bad global financial times (crisis or recession). In these situations, the increase in pages leads to a reduction in the cost of capital, so the increased information is valued by investors. In contrast, Loughran and Mcdonald (2014) believe a larger file size leads to more difficulty for investors to understand the information in the report and managers are using the lower readability to hide bad news. They can utilize the time to take action or improve firms' performance. So, where Leuz and Schrand (2009) believe that more pages provide more information, Loughran and Mcdonald (2014) argue that a larger file size makes the report difficult to read and difficult to obtain information.

Li and Zhao (2016) accept the conclusion of Loughran and Mcdonald (2014) and argue that a longer report contains more information but also has lower readability. They conduct a detailed investigation to determine if analysts can extract the additional information from longer reports or if lower readability hinders their understanding of the disclosed information. Following Li and Zhao (2016), analysts possess the necessary skill to extract information from the report, thus reducing uncertainty for investors. As analysts thoroughly analyze the annual statement, the information becomes more digestible in the long run, leading to positive investor reactions. Therefore, Li and Zhao (2016) conclusions align with those of Leuz and Schrand (2009), who believe that larger reports contain more information for investors, especially when utilized by analysts. Additionally, Park (2019) examines the relationship between analyst forecasts and the

annual report and found the same conclusion. Longer reports results in better analyst forecast, measured by the earnings surprise.

Other research has not focused on examining analysts' use in assessing the information value of a report but rather on firm value. One of these is Semenenko & Yoo (2019), who investigated the impact of annual report length on agency cost and firm value. Agency costs can serve as a proxy for the information gap between investors and the firm because they are related to information asymmetry among different parties. The study finds a negative correlation between the length of the annual report and firm value, attributed to an increase in agency cost. Additionally, Doucette & Cohen (2015) examine whether the difficulty of words and the length of the annual report influence firm performance. They conclude that lengthier reports with more difficult words allow managers to conceal negative information. Firms with a more complex report have lower earnings. Lower earnings and firm value lead to investor reactions, causing a decrease in stock prices and firm valuation (Li, 2008). Furthermore, Lee (2012) finds that longer reports lead to slower market reactions and lower stock prices. However, Lee (2012) focuses on quarterly reports rather than annual reports. These findings are more aligned with Lourghan and Mcdonand (2014), suggesting that longer reports do not increase or may worsen the informational value for investors.

The informational value of lengthier reports for equity holders remains controversial. However, research has also been conducted on debt holders and the information value of longer reports, which can provide insights as debt holders are also investors seeking to maximize their returns. Ertugrul et al. (2017) examine the relationship between the readability of the annual report, measured in file size, and the cost of debt. The study finds that companies with larger 10-K file sizes face stricter loan contract terms and greater future stock price crash risk. Therefore, firms with shorter reports tend to have higher cost of capital and cost of external financing. The findings of Bonsall & Miller (2017) align with those of Ertugrul et al. (2017). They measure the cost of debt by examining bonds and assess readability using an index based on the number of difficult words and the length of the report. The study finds that less readable financial disclosers receive less favorable ratings, higher bond rating agency disagreement, and a higher cost of debt. When considering debt holders, longer reports do not increase the informational value.

In addition to annual reports, research has also been conducted on the different opinions expressed in an audit report. An unqualified opinion inherently contains less information compared to a qualified opinion. A qualified opinion is issued when the auditor believes there is a lack of sufficient appropriate evidence, or when the financial statements deviate from generally accepted accounting principles. The qualified opinion includes all the information from unqualified opinions, along with details about the reasons for the qualification (PCAOB, 2017). Studying the effects of different reports on stock prices can provide insights into how investors value the increase in information. However, research has shown that reports disclose more

information, yet the stock price of a firm does not significantly change (Firth, 1978, Ittonen 2012, Muslih & Amin, 2018).

Summing up, it remains unclear whether lengthier annual reports increase the informational value for equity holders. While analysts can assist in extracting more information from the reports, longer reports are associated with higher agency costs and lower stock prices. In case of debt holders, lengthier reports do not increase the information value. Additionally, the type of audit report does not indicate whether more information is valued by investors. Therefore, the first hypothesis is as follows:

The length of the unqualified audit report does not influence the information for investors.

2.2 Critical Audit Matters

Some parts of the audit report contain more valuable information for an investor compared to other parts. Components that focus on the responsibilities of auditors and clients, as well as the scope of the engagements, are generally less informative for investors. On the other hand, the section about auditors' findings of the annual report, as well as the inclusion of CAMs and the explanatory section, are considered to be the most valuable for investors (Hepp & Reinstein, 2021). Therefore, this paper will also explore the impact of including CAMs or an explanatory section in the report.

According to the standards set by the Public Company Accounting Oversight Board (PCAOB) in AS 3101, the objective of the CAMs is to inform the investors and users of the audit report about matters that arose during the audit of the financial statement. These matters are either communicated or required to be communicated to the audit committee and relate to accounts or disclosures that are material to the financial statements. CAMs involve challenging, subjective, or complex audit judgment. The inclusion of this information aims to enhance the informativeness and relevance of the audit report for investors and other users.

In the United Kingdom, the implementation of expanded audit reports, including Key Audit Matters (KAMs), which are similar to CAMs in other jurisdictions, became mandatory for fiscal years ending after 30 September 2013. Lennox et al. (2022) conduct a study on the value investors place on the disclosed risks in the KAMs. The findings suggest that investors do not highly value these risks because they already were aware of the financial risk before the disclosure. Reid et al. (2019) also examine the impact of the expanded audit report in the United Kingdom but focused on the effect on financial reporting quality and audit cost. The results indicate that the new audit rules are associated with an improvement in financial reporting quality without an increase in audit fees. Similarly, Gold et al. (2020) investigated whether the implementation of KAMs has resulted in an improvement in financial reporting quality. The result suggests that the presence of KAMs restricts managers from aggressive reporting, leading to higher reporting quality and enabling investors to obtain more information.

According to the regulation ISA 701 in 2015, publicly traded firms in other European countries have been mandated in the audit report since 2016 (Rautiainen et al., 2021). Rautiainen et al. (2021) conducted a survey in Finland to investigate the value of KAMs. The survey involved Finnish Certified Public Accountants (CPAs), and the conclusion was that the inclusion of KAMs can have a positive impact on the efficiency of the audit process. In contrast to Reid et al. (2019), they do not believe that including KAMs in the audit report improves quality and increases investors' value. Building on the aforementioned literature, Xin et al. (2022) investigated the relationship between the readability of KAMs and the attention paid to them. They found when investors are less familiar with the KAMs, and less skeptical investors, their attention decreases as the readability decreases. This supports the conclusion of Reid et al. (2019), that the KAM section does not increase the informative value for investors. Köhler et al. (2020) examined the communicative value of KAMs between professional and nonprofessional investors. The findings suggest that for professional investors, only large changes in the key assumptions could result in goodwill impairment, while small changes do not. Nonprofessional investors have difficulties with processing the information in the KAM section, rendering it of no communicative value to them. In contrast, Christensen et al. (2014), found that nonprofessional investors are likely to react to CAMs. When a firm receives a CAM paragraph, investors are more likely to sell their investment. Rapley et al. (2021) further explored the findings of Christensen et al. (2014) and also finds that nonprofessional investors decrease their investment intentions. Additionally, Sirois et al. (2018) suggest that KAMs receive high attention in the report, but as a result, other parts receive less attention. This raises doubts about whether KAMs improve overall investor information. Other factors also impact the informational value of KAMs. The inclusion of KAMs audited by non-big 4 companies only improves the perceived value and credibility of the report for nonprofessional investors, but not for audits of big 4 companies. Big 4 audits are perceived to have higher value and credibility, and the inclusion of a KAM section does not significantly improve this perception (Monrey et al.,2021).

With the results of the literature on KAMs, no clear conclusion can be drawn regarding the information value for investors. Therefore, the scope will get expanded, starting with an examination of Chinese CAMs. Zhi & Kang (2021) investigated the link between a CAM section and the stock price crash risk. The results show that CAMs decrease the firm-specific crash risk, indicating an improvement in corporate governance and a more stable capital market. The inclusion of a CAM section decreases the risk, which protects the interests of investors and indicated that investors can better assess the information of the disclosed firms.

Since 2021, all publicly traded US companies are required to include CAMs when disclosing challenging, subjective, or complex audit judgments (Burke et al., 2023). CAMs were already mandatory for large, accelerated fillers in 2019. Several studies examined the effect of CAMs during this period, providing insights into their impact. However, it should be noted that these

studies may not be directly comparable as they focus on the time CAMs applied only to large accelerated public fillers, before becoming mandatory for all publicly traded companies.

One such study is conducted by Spaargaren et al. (2022), who use a difference-in-difference design to test the informativeness of CAMs for investors. The treatment group consist of large, accelerated filers, while the control group consisted of other US publicly traded companies. The findings suggest that CAMs are not informative for investors, possibly due to the complexity of the additional information investors, leading investors to be reluctant to invest in companies with CAMs. In addition, Burke et al. (2023) also conduct a difference-in-difference analysis and find that CAM disclosures do not provide incremental information to the market. The results suggest that CAMs have no significant impact on investors. However, Kipp (2017) investigated the value of firms with CAMs for nonprofessional investors. The study revealed that the more detailed the information in the CAM section is, the greater the confidence of nonprofessional investors, which in turn helps them make better investment decisions.

As you can read above, the conclusions about the information content of CAMs for investors are ambiguous. One paper found the use of KAMs does increase the quality, but investors do not seem to react to the expanded reports with KAMs. The conclusions about investors' attention KAMs get are also controversial. CAMs in China seem to have a positive impact, but CAMs for US large publicly traded firms do not have an impact on investors' decisions. When testing all US publicly traded firms, the hypothesis is mostly based on the conclusion of the large firms. The second hypothesis is as follows:

The inclusion of CAMs in an unqualified audit report does not influence the information for investors.

2.3 Explanatory Language Section

The explanatory language section is an important component of an audit report, providing additional information beyond the auditor's opinion of the annual statement. According to PCAOB standard AS3101 (2017), there are specific situations where an auditor needs to include explanatory language in an audit report. These include substantial doubts about going concern, changes in accounting principles or entity, correction of material misstatements in previously issued financial statements have been corrected, inappropriate presentation or review of required data, and a change in year-end.

The purpose of the explanatory language section is to enhance the informativeness and relevance of the audit report for investors and other users. However, Gold et al. (2012) conducted a study to examine the significance of the explanations section in the audit report for investors. They concluded that explanations in the audit report do not reduce the expectation gap and therefore do not provide incremental information or value for investors and users. Similarly, Czerney et al. (2019) find that the explanatory section in an unqualified audit report has limited

usefulness for investors, largely because investors already possess this information. They explored different types of explanatory language and their impact on abnormal returns and trade volume. They found explanatory language related to going concern issues was the only type that led to abnormal returns. Explanatory language regarding changes in rules or an emphasis of matter paragraph had insignificant differences in abnormal stock returns.

In contrast, Czerney et al. (2014) investigate the relationship between the explanatory language in an unqualified report and the risk of financial misstatements. They find that companies that received explanatory language in their audit report were more likely to have restatements compared to firms without such language. This effect was particularly driven by the emphasis of matter paragraphs and paragraphs about the division of responsibilities. These findings suggest that explanatory language may contribute to improving audit quality.

Gray et al. (2012) found that financial statement users value the audit but do not read the entire auditor's report. The explanatory section is often one of the parts that users tend to skip, indicating that it may not significantly impact investors' decisions. In summary, the explanatory section of an unqualified audit report does not reduce the expectation gap, and most types of explanatory language have little impact on investors' decisions, except in cases relating to going concern issues. Although the inclusion of explanatory language may enhance audit quality, the third hypothesis is as follows:

The inclusion of explanatory language in an unqualified audit report does not influence the information for investors.

3 Methodology

In this chapter, the research design of this paper is explained. A different regression analysis will be performed for each of the three hypotheses stated above, the dependent variable will be the same for all regression. This section will also provide information on how the data is generated and an overview of the data will be given.

3.1 Research Design

Dependent variable

Most studies use abnormal stock returns to assess whether investors are incorporating the disclosed information (Czerney et al., 2019; Ittonen, 2012; Lee, 2012; Lennox et al., 2022; Muslih & Amin, 2018; Park, 2019). Abnormal stock returns are the returns on a particular stock that exceed what would be expected based on its underlying risk and the overall market movements. They represent returns that are not explained by normal market fluctuations and the stock's inherent level of risk (MacKinlay, 1997). When new information is provided to investors, the disclosure can impact the stock price and result in abnormal stock returns. If investors do not utilize or believe the disclosed information, there should be no abnormal stock return.

$$AR_{it} = R_{it} - NR_{it} \quad (1)$$

Here, AR_{ti} represents the abnormal return for firm *i* on day *t*. It is calculated by subtracting the normal return NR_{it}, of firm *i* on day *t*, from the daily return R_{it}, for firm *i* on day t. In the paper Ball and Brown (1968) the market model to measure the normal market return (NR_{it}) is introduced, many papers used this model to calculate the normal return (Coutts, 1994; Duan et al., 2018; Ikram & Nugroho, 2014; Kothari & Warner, 2007; MacKinlay, 1997; Prevoo & Ter Weel, 2010):

$$NR_{it} = \alpha_i + \beta_i \times MR_t + \varepsilon_{it} \quad (2)$$

The normal return NR_{it} is calculated by multiplying the estimated parameter β_i by the Market return, MR_t, on day *t* and adding the estimated parameter α_i. The last term, ε_{it}, represents the error term of firm *i* on day *t*. The parameters α_i and β_i are estimated by running an Ordinary Least Squared (OLS) regression with the market returns and firm returns from 2011 to 2022 for firm *i*. Therefore, the parameters α_i and β_i are different for each firm. The first parameter α is the risk-free rate for this firm, and the second parameter β is defined as the systematic risk the firm faces.

Like, Czerney et al. (2019) the magnitude of the 3-day cumulative abnormal return centered around the publication of the audit report is used to observe the valuation of information by investors. They use signed abnormal returns because their hypotheses pose directional predictions. This paper does not investigate directional prediction therefore, the absolute value

of the abnormal return is used, as in the papers of Hope et al. (2016) and Flannery et al. (2017). This variable is defined as *CAR*:

$$CAR = |AR_{t-1}| + |AR_t| + |AR_{t+1}| \qquad (3)$$

Here, $|AR_t|$ represents the absolute abnormal return of the publication day of the audit report (t), calculated with formula (1), The terms *t-1* and *t+*1 represent one day before and one day after the publication, respectively.

Hypothesis 1

The first hypothesis focuses on the amount of text in an audit report. Previous studies have measured the amount of text using the number of pages and file size. However, since the audit report is typically concise, the number of pages may not provide information. Instead, the number of words will be used as a variable, denoted as *WORDS*. Lee (2012) also used words as an independent variable and took the natural logarithm of the number of words to capture the incremental information gained from adding a few more words when the initial disclosure has fewer words. Therefore, in this paper, the natural logarithm of the number of words will be used.

Additionally, the file size of the audit report will be included as a variable of the first hypothesis. This variable is measured in kilobytes and is denoted as *FILESIZE*. Li and Zhao (2016) used the file size of an annual report to examine its informative value. They used the natural logarithm of the file size, as a slight increase in disclosure size relative to a small file size can provide more incremental information compared to already large files. The logarithm of the file size will be the independent variable in the second regression test.

Hypothesis 2

The existing literature about US CAMs focuses on the period when the legislation was mandatory for large, accelerated filers. This allows for a comparable control group, which consists of US publicly traded firms that are not large, accelerated filers. These studies use a difference-in-difference design (Burke et al., 2023; Spaargaren et al., 2022).

In the context of the mandatory legislation of KAM in Europe, some studies use the number of KAMs, while others use a dummy variable to indicate the presence of a KAM paragraph (Christensen et al., 2014; Köhler et al., 2020; Reid et al., 2019). Since this study examines the presence or absence of CAMs in the audit report, a suitable approach is to use a dummy. This variable, denoted as *CAM*, takes the value of 1 for an unqualified audit report that includes CAMs and 0 if there are no CAMs stated.

Hypothesis 3

The third hypothesis will follow the same research design as the second hypothesis. Prior research indicates that approximately 30% of unqualified audit reports include an explanatory

language section (Choi et al., 2023[1]; Czerney et al., 2014[2]; Czerney et al., 2019[3]). To test the third, an OLS regression will be conducted, including a dummy variable for the presence of an explanatory language section. This variable, denoted as *EL*, takes the value of 1 if an explanatory language section is included and 0 otherwise.

Control variables

Several control variables will be included in the regression analysis. Firstly, there is a difference in the amount of information absorbed by investors between audit reports prepared by Big 4 companies and non-Big 4 companies (Monrey et al., 2021). To account for this, a dummy variable indicating whether the company is audited by a Big 4 auditor, denoted as *BIG4*, will be added as a control variable.

The size of a company often influences the length of the audit report. Generally, larger firms have longer reports. The size of the audit is typically reflected in the length of the report. To capture firm size, the natural logarithm of total assets, denoted as *ASSETS*, will be used as a control variable.

The trading volume of a company's stocks on a given day, calculated as the volume over the 3-day period, will be included as *VOLUME*. There is controlled for the time between the audit report and the fiscal year ended in days (*LENGTH*). Profitability can influence the length of an audit report, particularly when a firm indicates a loss. Therefore, two control variables are used to control for this: Return on Assets (*ROA*) and a dummy variable indicating 1 if the firm has a loss in the audited year and 0 otherwise (*LOSS*). The first two digits of the firm's SIC code are used to identify the industry and determine the industry fixed effects. A complete overview of all the variables used is given in Appendix B.

All the regressions follow this formula:

$$\textit{Abnormal stock return} = \alpha + \beta 1 * \textit{Independent proxy} + \text{Controls} + \varepsilon.$$

The independent proxy varies across the different regressions, with the independent variables respectively LN(WORDS), LN(FILESIZE), CAM, and EL.

3.2 Data

The data for this study is obtained from multiple sources. The stock returns and market returns data are sourced from the CRSP (Center for Research in Security Prices) database, which provides share prices of US securities necessary to calculate stock returns. To obtain the independent variables *CAM*, *WORDS*, and *FILESIZE*, databases of Audit Analytics provide relevant data on audit

[1] The paper of Choi et al. in 2023 had a sample of 22% of the reports has included any explanatory language.
[2] The paper of Czerney et al. in 2014 had a sample of 33% of the reports has included any explanatory language.
[3] The paper of Czerney et al. in 2019 had a sample of 36% of the reports has included any explanatory language.

reports, including information on CAMs, word count, and file size. Data on unqualified opinions with explanatory language (*EL*) is obtained from Compustat.

The study uses a time frame of 10 years, specifically focusing on audit opinions from 2012 to 2021[4], resulting in a sample of 7.507 unique firms with 45.187 firm-year observations. For the second hypothesis, which examines the mandatory legislation of CAMs for US firms, data from the year 2021 is used, resulting in a sample of 5.237 firms.

Table 1: Descriptive statistic

Panel A Dependent variable *CAR,* Top 0,3% observations winsorized to the 99,7%-level

Year	N	Min	25%-Quantile	Mean	Median	75%-Quantile	Max
2012	4.129	0,002	0,027	0,096	0,047	0,088	3,202
2013	4.287	0,002	0,027	0,093	0,046	0,086	3,202
2014	4.465	0,002	0,029	0,092	0,050	0,090	3,202
2015	4.456	0,001	0,035	0,102	0,061	0,109	3,202
2016	4.372	0,001	0,028	0,082	0,049	0,091	3,202
2017	4.401	0,002	0,034	0,086	0,056	0,098	3,202
2018	4.500	0,002	0,031	0,090	0,055	0,103	3,202
2019	4.558	0,004	0,049	0,147	0,097	0,186	3,202
2020	4.782	0,002	0,045	0,107	0,077	0,133	3,202
2021	5.237	0,002	0,045	0,120	0,082	0,153	3,162
Total	45.187	0,001	0,033	0,102	0,060	0,114	3,202

Panel B Independent variables

Year	N	Ln(WORDS)	Ln(FILESIZE)	CAM	EL
2012	4.129	6,030	9,420		0,12
2013	4.287	6,024	9,565		0,08
2014	4.465	6,022	9,610		0,10
2015	4.456	6,027	9,331		0,17
2016	4.372	6,022	9,420		0,15
2017	4.401	6,209	9,499		0,12
2018	4.500	6,264	9,539		0,29
2019	4.558	6,466	5,084		0,53
2020	4.782	6,593	9,429		0,38
2021	5.237	6,593	9,607	0,52	0,21
TOTAL	45.187	6,237	9,049	0,52	0,22

Panel C Control variables

Year	N	Big 4	Length	ROA	LOSS	ln(Assets)	Volume
2012	4.129	0,75	66,75	0,0214	0,28	20,732	1,603
2013	4.287	0,74	66,86	0,0168	0,30	20,710	1,693

[4] 2022 is excluded because there are only 643 observations in 2022 available at this moment, whereas all other years have over 4.300 observations. It takes a while to include the reports in the dataset, more data for the year 2022 will be available later this year.

2014	4.465	0,73	66,13	0,0128	0,31	20,714	1,657
2015	4.456	0,73	65,48	0,0056	0,35	20,789	1,759
2016	4.372	0,72	64,87	0,0046	0,35	20,784	1,777
2017	4.401	0,72	64,63	0,0073	0,35	20,817	1,851
2018	4.500	0,70	65,03	0,0059	0,36	20,784	1,855
2019	4.558	0,70	65,20	-0,0009	0,39	20,803	2,016
2020	4.782	0,69	65,57	-0,0153	0,49	20,759	2,140
2021	5.237	0,68	66,51	-0,0054	0,44	20,712	2,028
TOTAL	45.187	0,71	65,70	0,0048	0,37	20,760	1,846

Notes: Panel A shows the number of observations for every year., the minimum value, maximum value, mean, median, the 25%- and 75% percentile values of *CAR* for all years are given. In Panel B the mean of the *LN(WORDS)* and the mean of the *LN(FILESIZE)* for all years are shown. Also, the number of observations of *EL* and *CAM* is given. Panel C shows the year mean for every control variable. See Appendix B for variable definitions.

Table 1 presents descriptive statistics of the variables. Panel A provides descriptive statistics for the dependent CAR. The raw data was found to be skewed and contained extreme outliers. These extreme outliers can have a significant impact on the regression analysis and violate the assumptions of OLS regression. To address this issue, winsorizing is employed based on the guidelines suggested by Welch (2017) for handling extreme values in datasets related to stock returns. Specifically, the top 0,3% of the CAR dataset is winsorized. This means that 135 extreme observations with the highest values are replaced with a capped value of 3,212. By winsorizing the extreme values, the CAR used in the regression is less affected by these outliers. Despite the winsorization, the most extreme values are 31 times higher than the mean.

Panel B shows the descriptive statistic of the independent variables. Every year has at least 4.118 observations, with a maximum in the year 2021 of 5.230 observations. The number of words and file size variables does not encounter issues with extreme outliers, as they have already been addressed by using logarithmic transformation. Column 3 provides the mean file size per year, with an overall mean of 9,049. Notably, the mean file size in 2019 is lower than in other years. In column 4 the mean number of words per year is presented, with a sample mean of 6,237. In general, this variable increases over time, with the lowest mean of words in 2013 and 2014 and the highest in 2020. In column 5 the percentages of firms receiving a CAM section are shown, with 52% of the 2021 (2. 746 observations) including CAMs. Last, the percentage of reports with explanatory language is displayed, around 22% of all observations received explanatory language. In 2019, the highest percentage of reports, 53%, included explanatory language. Conversely, in 2013, the lowest percentage was observed, with only 8% of reports containing explanatory language.

Panel C displays the descriptive statistics of the control variables. Total assets, as it has been transformed using the logarithm function, do not encounter outlier issues anymore. However, for the variables, LENGTH, ROA, and VOLUME, the bottom and top 1% are winsorized to handle the outliers. Around 71% of the observations in the sample are audited by a Big 4 company, with a slight decrease from 75% in 2012 to 68% in 2021. The average length between the fiscal year

end and audit report publication is approximately 66 days, with a slight variation across years. The average ROA ranges from 2.14% in 2012 to -1.53% in 2020, with a mean of 0.48%. A negative relationship between ROA and LOSS is observed, indicating that a higher average ROA corresponds to fewer firms' indicating a loss. On average, 37% of firms in the sample indicate a loss. The average total assets remain relatively stable across the years, hovering around 20.7, close to the sample mean of 20,760. Lastly, let's consider the trade volume of the 3-day period, measured in millions. It appears that there is a positive trend observed over the years. In 2012, the trade volume was at its lowest point, reaching 1,6 million. However, by 2020, the trade volume had increased to 2,1 million over the same 3-day period. On average, the trade volume for the entire sample stand at 1,8 million.

4 Results

In this section, the regressions to test the hypotheses are presented. The results of the regressions are analyzed and explained. There are two robustness tests presented and explained and, the hypotheses are finally answered.

Hypothesis 1

The first hypothesis is tested by performing two OLS regressions, one with the independent variable containing the file size and another with the number of words. Table 2 presents the results of these regressions. In the first regression (1), which is a simple regression of file size on *CAR*, it is observed that a one percentage increase in the file size leads to a lower *CAR* of 0,00016. This indicates that the file size does influence the *CAR.*

A decrease in *CAR* of 0,00016 as observed in (1), means that the 3-day abnormal return decreases by 0,016 percentage points (Hereafter: pp). Important to notice, this effect might seem negligible, but the sample mean, and median are respectively 10,2% and 6%. A change of 0,016 percentage point does have impact on the outcome variable, especially with the coefficient significant at the 0,01 level. This suggests that investors value the stock of the firm more than the normal return investors follow the normal return, it implies that the provided information is not absorbed. There could be several reasons for this, such as investors already knowing the information value for investors compared to a smaller report. After adding the control variables, the industry fixed effects, and year fixed effects (2), a one percentage increase in file size affects the *CAR* by -0,01 pp, indicating that the information value of the report is decreased with 0,01 pp. The coefficient is significant at the 0,01 level.

There are also control variables that significantly affect the *CAR*. If a firm is audited by a Big 4 firm, a decrease in the *CAR* of 1,2 pp is observed. Additionally, *CARs* decrease with firm size. A one percent increase in total assets results in a decrease in *CAR* of 0,017 pp. Furthermore, the ROA negatively affects the *CAR*. With a one percentage increase in ROA, there is a 0,002 pp decrease in *CAR,* while a loss results in an increase of the *CAR* by 0,9 pp. The trading volume of the 3-day period has a small effect, where for every million trades, the *CAR* goes up by 1,6 pp. Finally, for every additional day between the end of the fiscal year and the publication of the report, the *CAR* goes up by 0,1 pp.

The third regression (3) involves a simple regression of words in the report on *CAR.* It is observed that a one percent increase in the number of words influences the *CAR* by -0,024 pp. The same interpretation for the coefficients can be used, indicating that a one percent increase in the number of words leads to a decrease in informational value for investors of 0,024 pp. After adding the control variables, the industry fixed effects, and year fixed effects (4), the effect of a one percent increase in words the *CAR* becomes -0,013 pp. The coefficient is significant at the 0,01 level.

The control variables also affect the *CAR*. If a firm is audited by a Big 4 firm, there is a decrease in the *CAR* of 1,2 pp. Additionally, if a firm has more assets the *CAR* decreases. A one percent increase in total assets results in a decrease in *CAR* of 0,018 pp. The ROA affects the *CAR* negatively, with a one percentage increase in ROA leading to a 0,002 pp decrease in *CAR,* while a loss results in an increase of the *CAR* by 1 pp. The trading volume of the 3-day period has an effect, where for every million trades, the *CAR* goes up by 1,6 pp. Moreover, for every additional day between the end of the fiscal year and the publication of the report, the *CAR* goes up by 0,1 pp.

The coefficients of both independent variables, used to test the length of a report, are negative and significant. Therefore, the first hypothesis: "*The length of the unqualified audit report does not influence the information for investors."* Is rejected. The length of an unqualified audit report does influence the information value for investors negatively. In other words, the longer a report, the less information it has for investors.

Hypothesis 2

The second hypothesis is tested by performing two OLS-regression, one simple regression with only the independent variable, a dummy variable containing one if CAMs are included, and zero otherwise (1). The other regression includes also control variables (2). Table 3 presents the results of these regressions. In the first regression (1), it is observed that if a firm included CAMs in their report, the *CAR* decreases by 4,7 pp. This means that the inclusion of a CAM section in the report leads to a decrease in informational value for investors of 4,7 pp. After adding the control variables, and industry fixed effects (2), it is found that including CAMs in an unqualified report has a negative effect of 1,8 pp on the *CAR.* The coefficients in both regressions are significant at the 0,01 level. Therefore, the second hypothesis: "*The inclusion of CAMs in an unqualified audit report does not influence the information for investors."* Is rejected. The inclusion of CAMs decreases the information value of the unqualified audit report for investors.

All control variables influence the *CAR*. *CARs* decrease with firm size, where a one percent increase in total assets results in a decrease in *CAR* of 0,019 pp. The ROA negatively affects the *CAR*, with a one percentage increase in ROA leading to a 0,002 pp decrease in CAR, while a loss results in an increase of the *CAR* by 1,2 pp. The trading volume of the 3-day period has an effect, for every million trades the *CAR* goes up by 1,7 pp. Additionally, for every additional day between the end of the fiscal year and the publication of the report, the *CAR* goes up by 0,1 pp. Finally, if a firm is audited by a Big 4 firm, there is an increase in the *CAR* of 0,9 pp.

Table 2: Regressions for the first hypothesis

	CAR			
	(1)	(2)	(3)	(4)
lnFILE	-0,016***	-0,010***		
	(0,001)	(0,001)		
lnWORDS			-0,024***	-0,013***
			(0,003)	(0,003)
BIG4		-0,012***		-0,012***
		(0,003)		(0,003)
LENGTH		0,001***		0,001***
		(0,0001)		(0,0001)
ROA		-0,002***		-0,002***
		(0,0002)		(0,0002)
LOSS		0,009**		0,010**
		(0,004)		(0,004)
lnASSETS		-0,017***		-0,018***
		(0,001)		(0,001)
VOLUME		0,016***		0,016***
		(0,001)		(0,001)
Year indicators	Not included	Included	Not included	Included
Industry indicators	Not included	Included	Not included	Included
Constant	0,244***	0,418***	0,250***	0,415***
	(0,005)	(0,025)	(0,016)	(0,031)
Observations	45.187	45.187	45.187	45.187
R2	0,016	0,113	0,002	0,111

Notes: ***, **, and* indicate statistical significance at p< 0,01, p< 0,05, and p< 0,10, respectively, based on two-tailed tests. Control variables, industry indicators, and year indicators are included in models 2 and 4, models 1 and 3 do not include controls, industry, and year effects. Standard errors are stated between the brackets. See Appendix 2 for variable definitions.

Table 3: Regression table for the second hypothesis

	CAR	
	(1)	(2)
CAMS	-0,047***	-0,020***
	(0,004)	(0,003)
BIG4		0,009*
		(0,004)
LENGTH		0,001***
		(0,0001)
ROA		-0,002***
		(0,0004)
LOSS		0,012*
		(0,007)
lnASSETS		-0,019***
		(0,001)
VOLUME		0,017***
		(0,001)
Industry fixed effects	Not included	Included
Constant	0,145***	0,432***
	(0,003)	(0,042)
Observations	5.237	5.189
R2	0,032	0,251

Notes: ***, **, and* indicate statistical significance at p< 0,01, p< 0,05, and p< 0,10, respectively, based on two-tailed tests. Control variables and industry indicators are included in Model 2, Model 1 does not include controls and industry effects. Standard errors are stated between the brackets. See Appendix 2 for variable definitions.

Hypothesis 3

The third hypothesis is tested by performing two OLS regressions: one simple regression with only the independent variable, a dummy variable containing one if EL is included and zero otherwise (1), and the other includes control variables, industry fixed effects, and year fixed effects as well (2). Table 4 presents the results of these regressions. In the first regression (1), it is observed if a firm includes EL in their report, the *CAR* increases by 4,1 pp. The interpretation is similar to previous regressions, but in this case, the coefficient is positive. The 3-day absolute abnormal return has gone up, indicating that investors value the stock less than the normal return. This suggests that the inclusion of explanatory langue provides investors with more information. After adding the control variables, the industry fixed effects, and the year fixed effects (2), it is found that including explanatory language in a report has a positive effect of 1,9 pp on the *CAR.* The coefficients in both regressions are significant at the 0,01 level. Therefore, the third hypothesis: "*The inclusion of explanatory language in an unqualified audit report does not influence the information for investors."* is rejected. The inclusion of explanatory language increases the information value of the unqualified audit report for investors.

Additionally, in this regression, the control variables also influence the *CAR*. If a firm is audited by a Big 4 firm, there is found a decrease in the *CAR* of 1,3 pp. *CARs* decrease with firm size, where a one percent increase in total assets results in a decrease in *CAR* of 0,018 pp. The ROA negatively affects the *CAR*, with a one percentage increase in ROA leading to a 0,002 pp decrease in *CAR,* while a loss results in an increase of the *CAR* by 0,9 pp. The trading volume of the 3-day period has an effect, where for every million trades, the *CAR* goes up by 1,6 pp. Additionally, for every additional day between the end of the fiscal year and the publication of the report, the *CAR* goes up by 0,1 pp.

Table 4: Regressions for the third hypothesis

	CAR	
	(1)	(2)
EL	0,041***	0,019***
	(0,002)	(0,002)
BIG4		-0,013***
		(0,003)
LENGTH		0,001***
		(0,0001)
ROA		-0,002***
		(0,0002)
LOSS		0,009**
		(0,004)
lnASSETS		-0,018***
		(0,001)
VOLUME		0,016***
		(0,001)
Year indicators	Not included	Included
Industry indicators	Not included	Included
Constant	0,093***	0,345***
	(0,001)	(0,024)
Observations	45.187	45.187
R2	0,006	0,112

Notes: ***, **, and* indicate statistical significance at p< 0,01, p< 0,05, and p< 0,10, respectively, based on two-tailed tests. Control variables, industry indicators, and year indicators are included in Model 2, Model 1 does not include controls, industry, and year effects. Standard errors are stated between the brackets. See Appendix 2 for variable definitions.

Additional analysis

Table 5 provides an overview of a regression that includes all the independent variables. The first regression includes observations from the year 2021, as the CAMs variable only has observations for that year. In this regression, the effect of independent variables CAMs and EL are no longer significant. The effect of CAMs observed in Table 3, can be explained by the other independent variables. Therefore, it is not possible to claim that CAMs harm the informational value for investors, and the second hypothesis should not be rejected. The control variables have approximately the same effect as in Table 3, except for the variable BIG 4. In this additional regression, the effect of a firm audited by a Big 4 company does not significantly influence the information value for investors.

The coefficient of the number of words and the file size remains significant at the 0,01 level, but the effect of file size has become positive. Another additional test is performed to obtain a better understanding of the effect of the independent variables. In the second regression, the variable CAMs is dropped, allowing for testing with the entire 10-year sample. In this case, the coefficient of file size has become negative again. All independent variables are significant at the 0,01 level and have the same sign as in the previous regressions. A one percent increase in file size results in a decrease in information value of 0,011 pp and a one percent increase in the number of words leads to a decrease of 0,021 pp in *CAR.* As expected, the first hypothesis should be rejected, as increasing the report length decreases information value for investors.

The inclusion of explanatory language increases the investors' information value by 2,2 pp, which is similar to the coefficient found in Table 4 (1,9 pp). Therefore, the third hypothesis should be rejected, as the inclusion of explanatory language provides more information to investors. All the coefficients of the control variables are significant at the 0,05 level.

Table 5: Regression with all independent variables

	CAR	
	(1)	(2)
lnFILE	0,010***	-0,011***
	(0,003)	(0,001)
lnWORDS	-0,068***	-0,021***
	(0,008)	(0,004)
CAMS	-0,004	
	(0,004)	
EL	0,003	0,022***
	(0,004)	(0,002)
BIG4	0,005	-0,013***
	(0,004)	(0,003)
LENGTH	0,0004***	0,001***
	(0,0001)	(0,0001)
ROA	-0,002***	-0,002***
	(0,0004)	(0,0002)
LOSS	0,012*	0,009**
	(0,007)	(0,004)
lnASSETS	-0,018***	-0,016***
	(0,001)	(0,001)
VOLUME	0,017***	0,016***
	(0,001)	(0,001)
Year indicators	Not included	Included
Industry indicators	Included	Included
Constant	0,775***	0,531***
	(0,067)	(0,032)
Observations	5.189	45.187
R2	0,263	0,115

Notes: ***, **, and* indicate statistical significance at p< 0,01, p< 0,05, and p< 0,10, respectively, based on two-tailed tests. Control variables and industry indicators are included in regression (1) and (2). In regression (2) also year indicators are included. Standard errors are stated between the brackets. See Appendix 2 for variable definitions.

In Table 6, a robustness test is performed where the period for measuring the independent variable CAR is extended. Previously, CAR was defined as one day before until one day after the publication date, other papers use a five-day sample to calculate CAR (Ameen et al., 1994; Carlson et al., 1998; Fleak et al., 1994; Jones, 1996). Therefore, in the robustness test, CAR is defined as one day before until three days after the publication date of the unqualified audit report. Looking at Table 6, it can be observed that the results are similar to those in Table 5, with shorter measuring period. The signs and significant results remain the same, and the coefficients are often similar or even larger in Table 6. Therefore, the same conclusion as before can be drawn. Investors respond negatively to the length of the report, do not respond to the CAMs, and respond positively to explanatory language.

Finally, another robustness test is performed. In this test, the abnormal trading volume is used as the dependent variable, following Czerney et al. (2019). The abnormal trading volume is calculated as the absolute value of the actual trading volume minus the normal trading volume for the 3-day period centered around the publication date. To determine the normal trading volume, the total sum of trading volume in a specific year for every firm is calculated and divided by the number of trading days of the firm. This average trading volume per day is multiplied by 3 to obtain the normal trading volume for the period. The independent and control variables remain the same, except for trading volume. Trading volume is excluded as a control variable as it is part of the dependent variable. The daily returns of the 3-day period are included as a control variable.

The first regression in Table 7 includes data for the year 2021. CAMs seem to have a slight positive impact on the trading volume, although this effect is only significant at the 0,10 level. Therefore, the investors' reaction to CAMs is still uncertain, and the second hypothesis remains accepted. The second regression in Table 7 includes observations from ten years. Where in the first regression the number of words and file size appear to harm trade volume. In the second regression, these results are insignificant. This suggests that the length of the report does not affect the trading volume of a firm's stock. These findings contradict the previous conclusions, where a negative relationship was found between the length of the audit report and the abnormal stock return. It is possible that the audit report is published alongside other information about the firm, and investors may respond to this additional information with the intention of short-term speculation rather than conducting a thorough evaluation of the firm's disclosure. Additionally, the market sentiment could be influenced by the publication of unrelated information, which may impact investor behavior. Finally, explanatory language also has a positive impact on the trading volume of a stock, consistent with the previous observations. Thus, the same conclusion holds, investors value explanatory language positively.

Table 6: Regression with extended CAR

	CAR	
	(1)	(2)
lnFILE	0,013***	-0,015***
	(0,004)	(0,001)
lnWORDS	-0,113***	-0,038***
	(0,01)	(0,002)
CAMS	-0,006	
	(0,005)	
EL	0,008	0,019***
	(0,005)	(0,002)
BIG4	0,007	-0,010***
	(0,005)	(0,002)
LENGTH	0,001***	0,001***
	(0,0002)	(0,0001)
ROA	-0,003***	-0,003***
	(0,0005)	(0,0002)
LOSS	0,017**	0,014***
	(0,008)	(0,003)
lnASSETS	-0,027***	-0,021***
	(0,002)	(0,0005)
VOLUME	0,015***	0,012***
	(0,001)	-0,0003
Year fixed effects	Not included	Included
Industry fixed effects	Included	Included
Constant	1,264***	0,791***
	(0,081)	(0,021)
Observations	5.174	44.445
R2	0,381	0,326

Notes: ***, **, and* indicate statistical significance at p< 0.01, p< 0.05, and p< 0.10, respectively, based on two-tailed tests. Control variables and industry indicators are included in regression (1) and (2). In the regression (2) also year indicators are included. Standard errors are stated between the brackets. See Appendix 2 for variable definitions.

Table 7: Regression with abnormal volume

	Abnormal Volume (in millions)	
	(1)	(2)
lnFILE	-0,002	-0,002
	(0,029)	(0,003)
lnWORDS	-0,196***	0,002
	-0,074	(0,009)
CAMS	0,060*	
	(0,036)	
EL	0,023	0,055***
	(0,037)	(0,007)
BIG4	0,164***	0,015**
	(0,04)	(0,007)
LENGTH	-0,005***	-0,001***
	(0,001)	(0,0001)
ROA	0,512	-0,404***
	(0,351)	(0,06)
LOSS	0,026	0,159***
	(0,064)	(0,01)
lnASSETS	0,145***	0,116***
	(0,011)	(0,002)
Firm return	1,320***	-0,027
	(0,235)	(0,057)
Year fixed effects	Not included	Included
Industry fixed effects	Included	Included
Constant	-0,78	-1,883***
	-0,594	-0,08
Observations	5.073	43.806
R2	0,200	0,233

Notes: ***, **, and* indicate statistical significance at p< 0,01, p< 0,05, and p< 0,10, respectively, based on two-tailed tests. Control variables and industry indicators are included in regression (1) and (2). In regression (2) also year indicators are included. Standard errors are stated between the brackets. See Appendix 2 for variable definitions.

5 Conclusion and discussion

This thesis examines whether users respond to information provided in an unqualified audit report by analyzing the three-day abnormal returns of investors. The information in the unqualified audit report is measured in four different ways, the file size, the number of words, the inclusion of Critical Audit Matters, and the inclusion of explanatory language in the report.

Empirical evidence from this study indicates that reports with larger file sizes and more words harm investors' responses to the information. The inclusion of Critical Audit Matters does not significantly influence the investors' response to the information, but the inclusion of explanatory language does. Investors responded positively to reports that contain explanatory language in the unqualified report. As Investors respond to three out of the four tested variables, the conclusion is that investors do react to the information provided in the unqualified audit report. To strengthen the conclusion, two robustness tests are performed. After expanding the period of CAR, the same conclusion can be drawn. When looking at the abnormal trade volume, CAM still does not get receive much value from investors. However, explanatory language has a positive impact on the trading volume of a stock. Surprisingly, the length of the report does not decrease the trade volume as expected from the abnormal return regressions. The additional test indicates that the conclusion is on the right track. However, it is important to note that there are several factors influencing the trade volume that are unrelated to investors' value of the disclosed audit report. Therefore, the conclusion does not need to be changed.

This study is relevant to standard setters' efforts to improve the usefulness of unqualified audit reports by examining if the information stated in the reports is relevant to users. The findings suggest that investors do react to the information given in the report, although not always positive. For auditors, this study is also relevant because it helps them better understand investors and their preferences for information. It highlights the importance of avoiding unnecessary length and size in the report, as investors respond negatively to longer and larger reports. Lastly, this study is relevant for investors as it allows them to assess whether other investors value the information disclosed in the reports.

This study used the market approach to define Cumulative Abnormal Returns (CAR), but this can be measured in various ways. For instance, the normal return can be calculated differently, such as using analyst expectations or the CAPM model. Similarly, the (daily) return can be measured in different ways, such as considering dividends or earnings made in a year. This paper specifically used the difference between the opening and closing prices of the stock market to measure the return. The information content was tested in four different ways, all of which are commonly used to assess information content. However, there are still other ways to test information content, such as readability.

The audit report often is published together with the annual report of the firm. This study attempted to capture all the factors in the annual report that influence investors' decision-

making by including control variables like total assets and ROA. However, it is possible that only a partial effect of the annual report publication is controlled by the control variables.

Further research should address these limitations by examining whether the conclusions hold when the Cumulative Abnormal Return is defined differently and/or other variables are used to test the information content of the report. Additionally, a deeper investigation into understanding why investors react to the unqualified audit report would be interesting.

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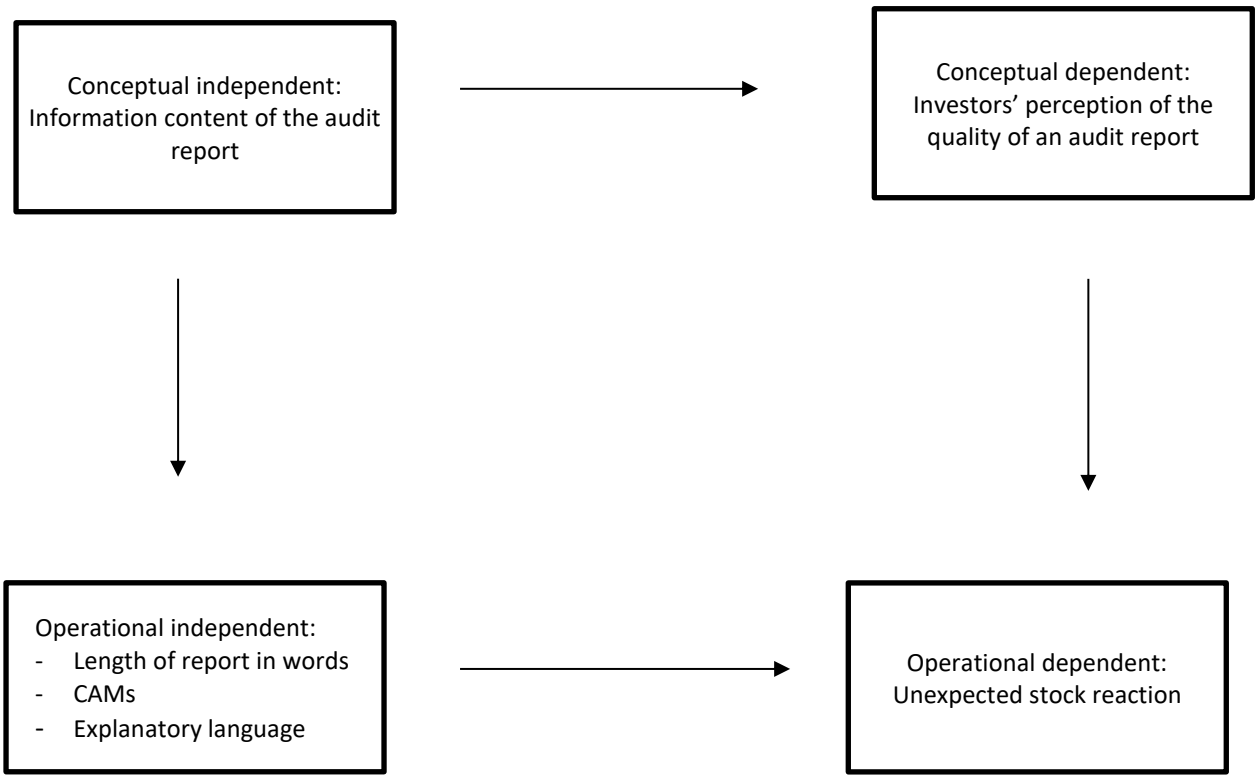
Appendix A

Libby boxes:



Appendix B

Variable definitions

CAR = 3-day cumulative absolute abnormal return centered on publication date of audit report.
Abnormal Volume = 3-day cumulative absolute abnormal trade volume centered on publication date of the audit report in millions.
VOLUME = 3-day trading volume of the stock in thousands.
WORDS = Number of words used in the unqualified audit report.
FILESIZE = File size of the unqualified audit report measured in kilobytes.
CAM = Dummy variable, one if the unqualified audit report has a CAM paragraph and zero otherwise.
EL = Dummy variable, one if the unqualified audit report has expandatory language and zero otherwise.
ASSETS = Mean of total assets of audited year, in million US Dollars.
BIG 4 = Dummy variable, one if a company is audited by a big 4 company and zero otherwise
ROA = Return on assets, in percentages.
LOSS = Dummy variable, one if a company has suffered a loss in the audited year and zero otherwise.
LENGTH = Time in days between the fiscal year ended and the audit opinion.
FIRM RETURN = control variable containing the sum of the firm returns of the 3-day researched period in percentages.