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SCHOOL OF BUSINESS, ECONOMICS AND LAW

Master Degree Project in Accounting

Tone Management and Earnings Management

A UK evidence of abnormal tone in CEO letters and abnormal accruals

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Abstract

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Title: Tone Management and Earnings Management: A UK Evidence of Abnormal Tone in CEO Letters and Abnormal Accruals

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Background and Problem Definition: The CEO letter is one significant narrative document through which senior management have opportunity to express beliefs and values to their shareholders. The CEO letter is unregulated in its nature and thereby subject to management opportunism through tone management. Tone management could further be used to manipulate the perception of the firm, which causes information asymmetry. Similar to the purpose of tone management, accruals could be opportunistically managed in order to manipulate users' perceptions of firm fundamentals. Thus, managers could through CEO letters employ tone management to potentially hide earnings management, and thereby mislead users about firm fundamentals.

Purpose: The purpose of this thesis is to test the possible association between tone management in CEO letters and earnings management, using data from 2013 including firms listed on the London Stock Exchange. Subsequently, the intention is to investigate if earnings management and tone management are substitutes or complements. The purpose is additionally to test the relation between tone management in CEO letters and financial performance

Research Design and Methodology: The theoretical framework of this thesis is used to develop hypotheses, which subsequently guide the research forward. In the execution phase, a customized dictionary is developed to fit with the purpose of the thesis. The execution phase continues in correlation and multiple regression analysis. The outcome of the statistical tests contributes to fulfill the purpose.

Empirical Results and Analysis: In accordance with previous literature, the empirical results reveal a positive association between tone in CEO letters and financial performance. Strengthening the purpose and the contribution of this thesis, empirical evidences reveal that abnormal tone in CEO letters and abnormal accruals are positively associated.

Concluding Remarks: The tone in CEO letters is generally positive regardless of management discretion. Furthermore the tone in CEO letters can be derived from firm performance, firm size and annual stock return. Finally, the findings indicate that tone management and earnings management through the use of abnormal tone and abnormal accruals functions as complements and are thus not substitutes.

Key Words: Tone Management, Abnormal Tone, CEO letter, Earnings Management, Accruals

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1. Introduction

The introducing chapter to this thesis aims to provide the reader with a background of the thesis subject. Based on this, a discussion regarding the problem is presented and thereafter concluded with the purpose of the thesis and hypotheses. Thereafter follows a statement of the contribution of this thesis to accounting theory. Finally, the chapter terminates with a description of the delimitations surrounding the thesis.

1.1 Background

In the context of accounting, people often think about financial reporting as numbers. Interestingly, more recent studies and analyses focus on accounting language as the medium through which companies communicate to their externalities (Hales, Kuang & Venkataraman, 2011). Accounting language could be expressed through narratives, which are becoming increasingly important as they become longer and more sophisticated. Furthermore, narratives allow preparers of annual reports to disclose further detailed information and explanations of events (Clatworthy & Jones, 2003; Merkl-Davies & Brennan, 2007). In turn, the increased importance of accounting narratives helps reducing the information asymmetry that could occur due to limitations in current accounting standards (Clatworthy & Jones, 2003; Huang, Teoh & Zhang, 2014). Consequently, accounting numbers complemented with accounting narratives may better indicate firm fundamentals.

The Chief Executive Officer (CEO) letter is one significant narrative document through which management have opportunity to express beliefs and values to their shareholders (Amernic, Craig and Tourish, 2010). The CEO letter is revealed by prior studies to be the most frequently read section in the annual report (e.g. Courtis, 1998; Clatworthy & Jones, 2003). Thus, as the power of the CEO grows (Amernic et al., 2010) and importance of accounting language becomes increasingly vital, the rhetorical *tone*, i.e. the usage of positive and negative expressions, assessed in CEO letters is proved to be central for the perception of the firm.

Through increased volume of accounting narratives, corporate leaders may or may not take advantage of the opportunities to obfuscate perceptions using tone, i.e. *tone management*. In extension, Schipper confirms another phenomenon of management manipulation namely, *earnings management*, in her commentary paper published in 1989. Prior and recent studies on earnings management confirm, by empirical evidence, its existence. One context of earnings management is accruals-based earnings management, which appear to be present as the current accrual system of accounting allows for earnings management behavior (Teoh, Welch and Wong, 1998).

1.2 Problem Definition and Purpose

Prior literature describe the CEO letter, or equivalent documents such as Management Discussion & Analysis (MD&A) and chairman's letter, as an important communication part of the annual report, and argues for its influence on investors and other users of the annual report (e.g. Abrahamson & Amir, 1996; Amernic & Craig, 2007; Patelli & Pedrini, 2014). Through the CEO letter, management are allowed to express beliefs, values and attitudes to shareholders and the letter thus provide insight to the motives and

intentions of CEOs (Amernic et al., 2010). The CEO letter could therefore provide an overview of firm activities and performance (Clatworthy & Jones, 2003). The Financial Reporting Council (FRC), an independent regulator in the UK, provides guidelines for the writing of annual reports that applies to all parts, including the CEO letter (FRC, 2015). However, these guidelines are not mandatory (FRC, 2015), and the content of CEO letters is consequently unregulated. Together with the relative freedom in choosing the informational content and the lack of restrictions surrounding the presentation, the CEO letter is an interesting document for analysis (Abrahamson & Amir, 1996).

Consequently, accounting narratives, such as the CEO letter, are proved to be subjects to management manipulation and opportunism (Clatworthy & Jones, 2006). Furthermore, the potential for self-serving behavior is enhanced by the fact that in the UK, for example, auditors review narratives to ensure that they are materially consistent with financial statements, but other aspects, such as tone, are not considered (Clatworthy & Jones, 2006). Clatworthy and Jones (2006) further explain that it might be natural for individuals to “put our best foot forward”, which could explain opportunistic presentation of accounting narratives. However, in the context of financial reporting, this thinking conflicts with basic financial premises, such as true and fair view, if management deliberately misrepresents firm fundamentals (Clatworthy & Jones, 2006).

According to Huang et al. (2014) tone management could be used as tool to obscure firm fundamentals. The authors further define tone management as abnormal tone, i.e. a tone level inconsistent with firm fundamentals. In addition, abnormal tone could further be practiced opportunistically to improve understanding of the financial reports and as consequence mislead investors by the employment of positive words to hide poor performance (Huang et al., 2014). This in turn creates a problematic situation as the users of the annual reports hold less accurate perceptions about the firm. Preparers of annual reports possess knowledge about the above discussed fact, that the CEO letter is the most frequently read section (Courtis, 1998), and this awareness by itself reasonably creates incentives for preparers to manage tone in order to change perceptions, without presenting false data. Thomas (1997) expresses her thoughts about the problem surrounding managers’ letters by stating that “Managers’ letters suggest and imply, but they do not lie” (p.63).

Hence, managers with incentives to manipulate users’ perceptions could select to present information in a positive or negative manner. In connection, Huang et al. (2014) refer to prior studies on accruals-based earnings management, suggesting that accruals, similar to the purpose of tone management, are managed in order to manipulate users’ perceptions of firm fundamentals. Teoh et al. (1998) explain that earnings consist of cash flows from operations and accruals. Accruals are adjusted by management in order reflect future business transactions, that is, reflecting firm condition more accurately. However, Teoh et al. (1998) emphasize that this flexibility allowed by the accounting system creates opportunities for earnings management. Accruals that are managed opportunistically (hereafter abnormal accruals) are thus proxies for earnings management.

To conclude, when firms engage in tone management, users of the financial reports may be required to read between the lines. Managers could through CEO letters employ tone management to potentially hide earnings management behavior, and thereby mislead users about firm fundamentals. Thus, the main purpose of this thesis is to test if earnings management and tone management are substitutes or

complements. The purpose is additionally to test the relation between tone management in CEO letters and financial performance. The main and the additional purpose are achieved through creating a customized dictionary in order to measure tone, using data from 2013 including firms listed on the London Stock exchange. Furthermore, the purposes are fulfilled through testing and analyzing the below hypotheses¹. Thereby, these hypotheses constitute the core of this thesis.

H₁ - Tone in CEO letters is positively associated with financial performance

H₂ - The probability of observing abnormal positive tone in CEO letters increases as financial performance decreases

H₃ - Abnormal tone in CEO letters is positively associated with abnormal accruals

1.3 Contribution

This thesis provides several contributions to accounting theory. Firstly, it provides empirical evidence and in-depth analysis of an association between tone management and earnings management. Prior studies concerning tone management primarily investigate the effect on investors and stock price reactions, caused by managerial opportunism (e.g. Feldman, Govindaraj, Livnat & Segal, 2010; Tan et al., 2014). Furthermore, previous scholars include accruals as control variable when studying tone (e.g. Feldman et al., 2010; Li, 2010; Huang et al., 2014). Although Huang et al. (2014) present a correlation between tone management and accruals, the main purpose of their study, and previously mentioned studies, is not to analyze the relation between tone management and earnings management. Furthermore, these studies test the existence of tone management primarily in MD&As and earnings press releases. Thus, the combination of tone management in CEO letters and earnings management is, to our knowledge, unexplored.

In addition, the general focus on previously conducted tone studies has been listed or unlisted firms in the US. On the contrary, this thesis approaches firms listed on the London Stock Exchange, a large and liquid stock market characterized with dispersed ownership. Finally, the dictionary created for the purpose of this thesis is customized to fit CEO letters and could therefore apply to future tone studies.

1.4 Delimitations

With the limited time frame in mind, this master thesis covers a limited scope of the research field. Firstly, regarding tone management, the document to study is the CEO letter of annual reports. Secondly, in terms of textual analysis, neither readability in the shape of reading ease, nor graphic presentations, are considered when measuring tone. In the context of earnings management, only accruals-based measurements are applied.

¹ Hypotheses are developed in section 2.3

2. Frame of Reference and Hypotheses Development

The following chapter constitutes the theoretical framework used in this thesis and aims at summarizing relevant arguments provided by existing literature within the chosen fields i.e. tone management and earnings management. Finally, hypotheses for this thesis are derived from the literature and developed in section 2.3.

2.1 Tone Management

The linguistic features and textual analysis of accounting have gained attention during recent years. Li (2008) examines reading complexity in annual reports through measuring annual report readability in MD&As and in notes to financial statements. The findings indicate that firms with lower and less persistent earnings report disclosures that are difficult to read, in other words, disclosures with low readability. Interestingly, the author suggests a clear association between linguistic features in reported disclosures and firm performance, concluding that firm performance is positively correlated with annual report readability. Additionally, Li (2008) continues beyond readability by exploring other lexical features in disclosures, such as the use of positive versus negative words (tone), revealing that loss firms that use positive words to a larger extent than negative words in their MD&As have less persistent earnings. In accordance, Rutherford (2005) explains that stylistic choices such as lexical features, words choices, frequency use and word complexity affect the perception accounting narratives. More so, Rutherford (2005) concludes that management's letter to shareholders in general is positively charged, regardless of financial result.

The notion of tone management has been the subject of several recent papers, both in the context of accounting and in the context of other research fields. Within accounting and financial reporting, scholars use the concept mainly in order to establish how tone management would or could influence investors (e.g. Davis & Tama-Sweet, 2012; Huang et al., 2014; Tan et al., 2014). Huang et al. (2014) further define tone management as: "... the choice of the tone level in qualitative texts that is incommensurate with concurrent quantitative information..." (p.1083). According to Huang et al. (2014), the rhetorical use of narratives is important in order to understand quantitative information. However, when agency motives are present, the rhetoric could instead mislead the reader and thereby be used strategically rather than informative (Huang et al., 2014). Thereof, Huang et al. (2014) investigate whether tone management is used for strategic purposes or for informative purposes, and if the capital market discounts for strategic motives when reacting to earnings announcements. When firm fundamentals are better than indicated by quantitative information, due to limitations in accounting standards, tone management could be employed for informative purposes (Huang et al., 2014). However, tone management may be used for strategic purposes to change perceptions about firm fundamentals (Huang et al., 2014). Extending the research by Li (2008), Huang et al. (2014) are of the opinion that tone is jointly affected by firm fundamentals and managerial incentives to report strategically. They find that despite opportunities for truthful disclosures, management abuses abnormal *positive* tone when firm fundamentals are poor. As consequence, the authors find abnormal positive tone to be negatively correlated with future earnings. Additional findings reveal that abnormal positive tone is associated with positive immediate market reactions to earnings

announcements, followed by negative market reaction in subsequent periods. The authors conclude this reversal effect to be driven by the overestimated reaction to abnormally positive earnings announcements.

Tan et al. (2014) refer to Huang et al. (2014) explaining that language sentiment effect is associated with the use of positive versus negative words. By holding the information content constant, Tan et al. (2014) investigate whether tone management is used to influence investor perceptions. In contrast to remaining studies on tone management, Tan et al. (2014) explore the co-occurrence of language sentiment and readability in earnings press releases. In an additional analysis, the authors explain language sentiment to be an effect of attribute framing, which is the situation when people's perceptions about identical items differ depending on the extent to which the items are described in a positive or negative manner. Drawing on attribute framing, the authors find that positive language (as opposed to neutral language) leads to positive framing effect as the participants of the study view firm performance to be better than indicated by financial figures, regardless of investor sophistication. However when taking the co-occurrence of language sentiment and readability into account, the authors find that when readability is high, the language used becomes less significant, regardless of sophistication level. In contrast, when readability is low, language sentiment is proved to affect investor judgment depending on sophistication level (Tan et al., 2014). Less sophisticated investors are more influenced by positive framing (positive tone) despite the fact that the information provided in annual reports may be inconsistent with firm fundamentals, leading investors to make overestimations of earnings (Tan et al., 2014). In contrast, the authors emphasize, when readability is low, more sophisticated investors regard positive tone as less credible and thereby make lower earnings judgments than firm fundamentals. Tan et al. (2014) conclude that underestimated earnings cause the use of positive language to backfire.

The common feature behind the reviewed literature above is that management incentives behind the use of language appear to determine the tone. According to Courtis (1998), firms subject to media attention might have motives to influence readers' perceptions and engage in tone management in order to restrict outside interference. In accordance, Huang et al. (2014) identify that tone management is used when there are incentives to mislead investors, for example when management have targets to meet or beat. This argument is further strengthened by Henry (2008) explaining that firm's ability to manage tone is dependent on firm fundamentals compared to analyst forecast. Under these circumstances, she explains that tone management could be achieved by describing outcomes and events with a positive language and provides positive comments about the future. Furthermore, Davis and Tama-Sweet (2012) emphasize that management have incentives to manage tone in earnings press releases to minimize stock price effects on negative news by applying less pessimistic language. This reasoning by Davis and Tama-Sweet (2012) is in accordance with both Huang et al. (2014) and Tan et al. (2014), who argue that negative financial performance may be disguised using positive tone.

2.1.1 The CEO Letter

The reviewed studies in above sections use different channels of management communication when assessing tone management. Several scholars (e.g. Li, 2010; Davis & Tama-Sweet, 2012) apply the MD&A report when determining the implications of tone management, because of the voluntary nature of its content and excessive room for management discretion. Other scholars (e.g. Huang et al., 2014; Henry, 2008; Davis & Tama-Sweet, 2012), analyzing tone management effect on stock prices, target earnings press releases as source of management communication. Earnings press releases are widely used due to

investors' timely reactions, creating incentives for management to act strategic in their use of language (Davis & Tama-Sweet, 2012).

Other authors (e.g. Hildebrandt & Snyder, 1981; Amernic & Craig, 2007; Amernic et al., 2010; Patelli & Pedrini, 2014) rely on the annual letter to shareholders (hereafter CEO letter) when studying tone management. In general, the CEO letter includes statements summarizing past events and future prospects (McConnell, Haslem & Gibson, 1986). The CEO letter is neither audited, nor are there specific requirements regarding its content and shape (Fisher & Hu, 1988). Management is thereby free to provide statements of anything it considers important (McConnell et al., 1986). Thereof, CEO letters contain other information than provided in the financial statements, along with explanations and interpretations (Abrahamson & Amir, 1996).

As presented in section 1.1, the CEO letter is claimed by several authors to be the main communication channel for management to review firm performance to shareholders. Amernic et al. (2010) claim "CEO letters to shareholders in annual reports are important instances of the use of language in the disclosure of senior corporate leaders. Such letters are narrative accountability texts offering valuable insights to the motives, attitudes and mental models of management" (p.26). In accordance, Abrahamson and Amir (1996) argue for the importance of CEO letters, implying that CEO letters include useful information in making investment decisions. McConnell et al. (1986) state that CEO letters should not be disregarded exclusively as the users of the documents otherwise could lose important signals. However, the authors together with Fisher and Hu (1988) dissuade analysts and investors to solely rely on CEO letters when making earnings forecasts or investment decisions. More so, McConnell et al. (1986) encourage investors to read between the lines and take a "hard look" at the language of the CEO letter, since the language could differ dependent on the financial performance of the firm. Additionally, McConnell et al. (1986) present a relation between the assessment of prospective performance in CEO letters, and the firm's actual performance. Concluding, these results point to the usefulness of the CEO letter since it could be used to assess future performance (McConnell et al., 1986).

2.2 Earnings Management

Earnings management is a notion that has been quite popular among researchers to explore (Healy & Wahlen, 1999). One particular study that has been cited by several scholars (e.g. Leuz, Nanda & Wysocki, 2003; Burgstahler, Hail & Leuz, 2006) is the literature review on earnings management by Healy and Wahlen, conducted in 1999. Healy and Wahlen (1999) define earnings management as the situation when management abuses the opportunity of judgment, either to mislead stakeholders about firm fundamentals or to influence contractual outcomes. Accounting standards are constructed to fit different accounting environments, and the element of judgment is therefore necessary (Healy & Wahlen, 1999). However, this requires users to make accounting decisions based on privately held information, which potentially creates discretionary reporting situations and agency problems (Burgstahler et al., 2006). Burgstahler et al. (2006) further explain that management, consequently, either can construct earnings as less or more informative dependent on the usage of privately held information.

In addition, the desire to mislead stakeholders could according to Healy and Wahlen (1999) include limiting stakeholders' access of information in order to reduce transparency of information. In

accordance, Leuz et al. (2003) argue that firms have incentives to mislead stakeholders by misrepresent firm performance, thereby mask true performance through earnings management as a result of conflicts between firms and their stakeholders. Similarly, Schipper (1989) possess a view of accounting numbers as information and relates earnings management to “disclosure management”, emphasizing that managers intervene financial reporting to obtain private gain. Schipper (1989) further argues that earnings management could occur everywhere in external reporting and undertake all shapes.

The incentives to manipulate earnings are widely explored in previous literature. Dechow and Skinner (2000) emphasize that capital market incentives for earnings management is the most accurate focus since stock market prices and their relation to earnings has become increasingly important. In turn, managers have incentives to manage earnings to both maintain and improve stock price valuation, which is supported in the review by Healy and Wahlen (1999). While these studies connect the capital market to earnings management, Leuz et al. (2003) link how incentives to manage earning could be associated with institutional factors. Leuz et al. (2003) investigate how the level of earnings management could vary across clusters and find that investor protection rights is a key determinant for earnings management. Additionally, Dechow et al. (2010) indicate that when firms have targets to meet or beat, set by them or by outside parties, they also have incentives to manage earnings.

2.2.1 Accruals-Based Earnings Management

Earnings consist of total accruals and cash flow from operations, and the amount of accruals therefore affect the amount of reported earnings (Teoh et al., 1998). Teoh et al. (1998) explain that by upwardly adjust accruals today; managers can increase current reported earnings at the expense of future reported earnings. However, Richardson (2003) informs that high levels of accruals could be unintentional due to the accounting environment of the firm, and thereby not a result of earnings management. In fact, accruals are the core of the modern accounting system and are used to prevent mismatches between short-term transactions (Runesson, 2014). Nevertheless, the nature of accruals require high amount of estimation of future events and subjective allocation of past transactions, and are therefore subject to earnings management behavior (Richardson, 2003).

Due to the role of accruals within the accounting system, scholars generally decompose accruals into two separate components, normal (non-discretionary) and abnormal (discretionary). Normal accruals are those related to the fundamental performance of the firm, and, abnormal accruals are in contrast those exceeding the normal (Dechow et al., 2010). Hence, abnormal accruals are not explained by firm fundamentals and can therefore function as indicator of management’s abuse of reporting flexibility (Healy & Wahlen, 1999; Geiger & North, 2011). In accordance, both prior and recent scholars (e.g. Godfrey et al., 2003; Li 2010; Huang et al., 2014) argue that management uses abnormal accruals as tools to manipulate investor perception about true firm performance. Hence, research indicates that abnormal accruals are used to manage earnings, and abnormal accruals are therefore considered an appropriate proxy for earnings management among researchers.

Subsequently, the effect of accruals has been widely explored within earnings management literature. Previously mentioned Teoh et al. (1998) examine whether income-increasing accruals accounting leads to overly optimistic investor judgments of stock issues. The authors both predict and conclude that overvaluation of performance leads to poor earnings and stock return performance in subsequent periods.

By decomposing earnings into accruals and cash flow from operations, the authors find that the overvaluation and the subsequent earnings underperformance are caused by accruals. These findings are in accordance with Sloan (1996), who finds that earnings are less persistent when highly dominated by accruals. After further decomposing the accrual component into abnormal and normal, Teoh et al. (1998) provide evidence consistent with earnings management that abnormal accruals both predict underperformance of post-issue earnings and post-issue stock returns. Additional evidence of the connection between low persistence of earnings and earnings management is provided by Dechow, Sloan and Sweeney (1995). The authors present empirical evidence of the reversal effect of accruals, i.e. increase (decrease) in year zero followed by decrease (increase) thereafter. According to Sloan (1996), the reversal effect is a sign of earnings management contributing to the lower persistence of the accrual component of earnings.

The low persistence of earnings dominated by accruals has more recently been explored by Dechow et al. (2010). The authors examine the notion of earnings quality and present a review of its proxies, determinants and consequences. High quality earnings are defined as earnings highly informative about the firm's financial performance (Dechow et al., 2010). Thereby, proxies for earnings quality are transactions that might lower the informational use of earnings. One such category of proxies are according to Dechow et al. (2010) the property of earnings, including among others earnings persistence, accruals and target beating. Furthermore, the authors mention that the majority of studies published on the subject, view abnormal accruals as the determinant of earnings quality since abnormal accruals are assumed to erode decision usefulness. Thereby, accruals-based earnings management is assumed to erode earnings quality since manipulated earnings have low persistence (Dechow et al., 2010).

2.3 Hypotheses Development

Throughout the literature supporting this thesis, researchers have highlighted the relationship between firm performance and tone in various types of management letters. For example, Davis and Tama-Sweet (2012) test the use of language in financial reports where they expect current firm performance to be the significant determinant of the use of positive versus negative language. In connection, authors (e.g. Amernic & Craig, 2007; Merkl-Davies & Brennan, 2007; Henry, 2008) express that tone is managed depending on whether companies face high or low profits, arguing that when profits are high, management tend to use a positive tone in accounting narratives as a result of good management. Huang et al. (2014) state that when presentation of information is neutral, the optimism in tone is positively correlated with performance. This reasoning is in accordance with Davis and Tama-Sweet (2012), who provide similar evidence regarding optimistic tone and financial performance. Thereof, the common thought among previously mentioned scholars appears to be that the tone in CEO letters is generally positive, and that the association between tone and financial performance consequently is positive. However, the above noted studies present empirical results on firms listed in the US whilst investigating various management communication channels. Thus, the thought of a similar association between tone in CEO letters and financial performance of firms listed on the London Stock Exchange is thereby justified, and presented as H_1 .

H_1 - Tone in CEO letters is positively associated with financial performance

In contrast to above, Hildebrandt and Snyder (1981) conclude that positive words are more frequently present in CEO letters than negative words, regardless of financial results. The authors explain that a financially bad year will include positive statements that do not reflect firm fundamentals, i.e. abnormal usage of tone. Similarly, Rutherford (2005) presents results indicating that management letters are dominated by positive words, which justifies the reasoning by Hildebrandt and Snyder (1981). Furthermore, Rutherford (2005) argues that loss making firms employ word such as *profit* and *profits*, more frequently than profit making firms. The research by Hildebrandt and Snyder (1981) and Rutherford (2005) legitimate the thought of potential usage of abnormal positive tone when firm performance is negative. Drawing on Huang et al. (2014), one can assume that loss making firms have incentives to change users' perceptions, and thereby more prone to employ abnormal positive tone in CEO letters compared to profit making firms. The following hypothesis is thereof presented:

H₂ - The probability of observing abnormal positive tone in CEO letters increases as financial performance decreases

Referring to previously presented descriptions of tone management and earnings management, mutual for both management behaviors is the intent to affect or shape perceptions about financial performance. Adding the resembling incentives behind the two behaviors, the thought of coexistence is justified. Li (2010) explains that both accruals and tone could by managers signal future firm performance. In addition, when incentives to mislead investors are present, there may be a positive association between accruals and the tone of MD&As (Li, 2010). Similarly, Huang et al. (2014) investigate, in additional analysis, the co-occurrence of tone management and earnings management to provide evidence on whether the two behaviors complement or substitute each other when manipulating investor perceptions through earnings press releases. In sum, the authors found that the association between abnormal accruals and abnormal tone is statistically significant, proving management's' usage of both behaviors simultaneously in earnings press releases. These evidence are also provided by Schrand and Walther (2000) stating "strategic disclosure in earnings announcements is related to earnings management..." (p.3). Hence, one can predict a similar association between abnormal tone in CEO letters and abnormal accruals of firms listed in UK. The third and last hypothesis is thereby proposed as:

H₃ - Abnormal tone in CEO letters is positively associated with abnormal accruals

3. Methodology

The aim of this chapter is firstly to present the research design, which is illustrated in figure 3.1.1 and aims to serve as guidance throughout the thesis. Thereafter follows a description of the sampling process. Subsequently, the chosen variables are presented in table 3.3.1 and described one by one. Thereafter, models regarding measurements of the variables tone and accruals are of particular importance for this thesis and therefore presented in detail in section 3.4. Afterwards, the selected statistical analyses for this thesis are presented and followed by the data collection. Finally, comments about validity, reliability and limitations are provided in the last subsections.

3.1 Research Design

Quantitative research methods are perceived as most suitable when testing the developed hypotheses. Thereby, aligned with positivism, the research is based on a theoretical structure, which subsequently is tested through empirical observations. In other words, the logic of the research could be identified as moving from the general to the specific (Collis & Hussey, 2014). The magnitude of the variables is tested through the use of hypotheses, which guide the research forwards. Thus, the outcome of the statistical tests will through analysis contribute to fulfill the purpose of the thesis. The hypotheses are constructed through in-depth review of existing literature, and thereby test theoretical propositions against empirical evidence (Collis & Hussey, 2014). The hypotheses, developed in section 2.3, are presented below:

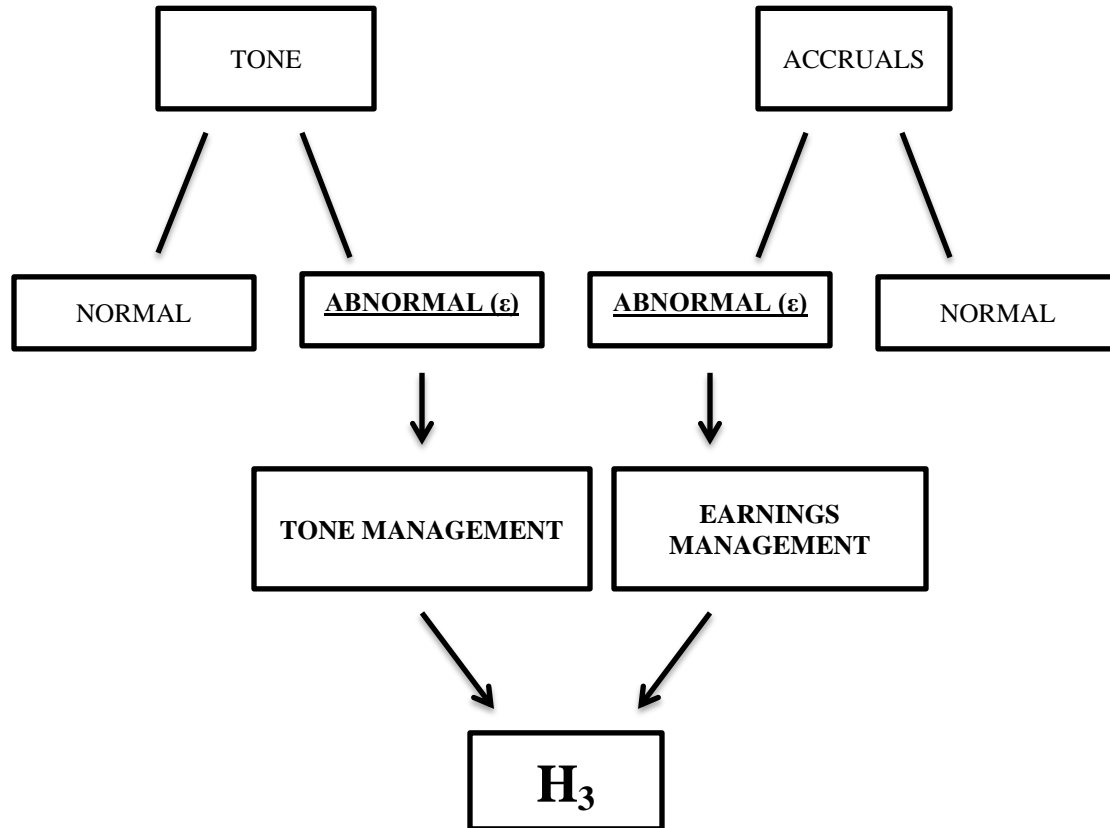
H₁ - Tone in CEO letters is positively associated with financial performance

H₂ - The probability of observing abnormal positive tone in CEO letters increases as financial performance decreases

H₃ - Abnormal tone in CEO letters is positively associated with abnormal accruals

The below figure (3.1.1) functions as guidance towards the main purpose of the thesis, which is stated as H₃. As illustrated, tone and accruals, which are measured separately, both constitute of a normal and an abnormal component. The abnormal components, calculated as regression residuals, are subsequently the main elements when testing H₃, which explores a potential association between abnormal tone (*ABTONE*) and abnormal accruals (*ABACC*). Abnormal tone and abnormal accruals thereby functions as proxies for discretionary management behavior.

Figure 3.1.1 Research Design



H₁ and H₂ explore the association between tone and firm performance, and thus contribute to the additional purpose of this thesis. H₁ establish the association between tone and financial performance regardless of management discretion, which is of analytical importance. Furthermore, the usage of positive tone when performance is negative, i.e. abnormal positive tone, is of particular interest for this thesis. H₂ aims to establish the probability of observing abnormal positive tone as financial performance decreases and is therefore expressed in logistic terms.

3.2 Sample

The population constitutes of firms traded on the London Stock Exchange during year 2013. The UK is according to Leuz et al. (2003) classified as large in terms of stock market, and characterized by low ownership concentration. Thereby, the information provided by firms listed on the London Stock Exchange is of importance and followed by great deal of analysts and investors.

Following Geiger and North (2011), financial services, i.e. banks and insurance firms, are excluded from the population. The accruals of banks and insurance firms are considered industry specific and would, if

included, disturb the measurement of accruals (Stubben, 2010). The firms are identified through using two-digit Industry Classification Benchmark (ICB) code² and thereafter deleted from the population.

A prerequisite of this thesis is that the required data exist in the Datastream database. Therefore, in order to preserve the sample consistent, observations with missing values related to the dependent, independent and control variables are eliminated. In order to limit the risk of potential comparison issues, the currency of the variables are, through functions of Datastream, converted into GBP (£) before choosing a sample. Moreover, firms with no available annual report or no CEO letter or equivalent letter are excluded. Based on the mentioned restrictions, the final sample consists of 415 firms (see Appendix1). The sample size is believed to be suitable since the authors execute the content analysis of the CEO letters manually. The sampling process is visualized below.

Table 3.2.1 The Sampling Process

Initial number of firms provided by ESMA	1410
Firms categorized as financial services	- 34
Deleted due to missing values	- 827
Deleted due to annual report not found	- 36
Deleted due to no CEO letter or equivalent	- 98
FINAL SAMPLE	415

² Firms classified with two-digit ICB code, 8300, 8500 or 8700.

3.3 Variables

Table 3.3.1 Summary of Variables

Name	Abbreviation	Type of Variable	Proxy for	Measurement
Tone	<i>TONE</i>	Dependent	Level of Tone	(Positive words-negative words)/(positive words+negative words)
Abnormal Tone	<i>ABTONE</i>	Dependent	Tone Management	Regression residual ³
Abnormal Positive Tone	<i>ABPOS</i>	Dependent	Tone Management	1=Abnormal tone >0 0=Abnormal tone ≤0
Abnormal Accruals	<i>ABACC</i>	Independent	Earnings Management	Regression residual
Performance	<i>LOSS</i>	Independent/Dummy	Financial Performance	1=EARN<0 0=EARN≥0
Profitability	<i>EARN</i>	Independent/Control	Financial Performance	Net income/total assets
Size	<i>SIZE</i>	Control	External Attention	Log(market value of equity)
Book-to-Market Ratio	<i>BTM</i>	Control	Growth Potential	Book value of equity/market value of equity
Annual Stock Return	<i>RET</i>	Control	Growth Potential	$((P_1-P_0)+Div)/P_1$ ⁴

Tone, *TONE*

Drawing on the research by Huang et al. (2014), the firm's total level of tone is interpreted as the normal level of tone together with the abnormal level (*ABTONE*). Normal level of tone symbolizes the neutral description of firm fundamentals, and is expressed through the control variables of regression (1) (see section 3.5.3.1). Accordingly, the *TONE* variable expresses the tone level including both the normal level and the abnormal level. *TONE* is used in H_1 to calculate *ABTONE* and to establish the association between tone and financial performance. The procedure of measuring *TONE* is further described in section 3.4.1.

Abnormal Tone, *ABTONE*, and Abnormal Positive Tone, *ABPOS*

ABTONE is considered the dependent variable in regression (3). Following Huang et al. (2014) *ABTONE* is calculated as the residual value when deducting the normal level of tone from the total level of tone, and thereby proxies for the strategic usage of tone, i.e. tone management. If tone is expected to be consistent throughout the years, the change in tone could also proxy for tone management (Huang, et al., 2014). However, as this thesis only considers one firm year (2013), tone management is better indicated

³ Regression residual from regression (1)

⁴ P_0 =Stock price year-end, 2012, P_1 =Stock price year-end, 2013, Div=Dividends per share 2013.

by *ABTONE*. In contrast to Huang et al. (2014), *ABTONE* is considered to be both negative and positive abnormal tone. The value of *ABTONE* is expressed through the error term in regression (1) (see section 3.5.3.1), and thereby calculated as the residual value.

In order to test the probability stated in H_2 , the *ABPOS* variable is created as a dummy variable set to 1 (0) if *ABTONE* is positive (negative). The intention is to isolate the firms with positive abnormal tone in order to test the probability of observing *ABPOS* (i.e. $ABPOS = 1$) as financial performance decreases. Since *ABPOS* is derived from *ABTONE*, *ABPOS* also functions as proxy for tone management.

Abnormal Accruals, ABACC

Following previous literature, abnormal accruals (*ABACC*) are used as proxy for earnings management. The variable is considered independent due to its use in H_3 , and is identified as the error term in the Cross-Sectional Modified Jones Model (see section 3.4.2).

Financial Performance, EARN and LOSS

EARN and *LOSS* capture current financial performance, which according to the literature (e.g. Davis and Tama-Sweet, 2012; Huang et al., 2014) is considered to affect the level of tone. The *EARN* variable is calculated as the net income divided by total assets, also known as the Return on Assets (ROA). *LOSS* is a dummy variable set to 1 when *EARN* is negative and 0 when *EARN* is equal to zero or positive. Following Huang et al. (2014) *EARN* intends to measure profitability, whilst *LOSS* act as a performance benchmark. *EARN* is included in regressions (1)-(3), and its correlation with *TONE* is tested in H_1 . *LOSS* is included in regressions (2) - (3) and serves as the main independent variable along with *EARN* in H_2 .

As the value of *LOSS* is dependent on *EARN*, an interaction effect arises (Wooldridge, 2013). The interaction variable, *EARN_LOSS* is the product of multiplying *EARN* with *LOSS*, and is used in regressions (2) and (3) in order to control for the interaction effect.

SIZE

Following prior literature on tone management, size is generally controlled for as the external attention drawn to the firm due to its size could affect the level of tone. For instance, Li (2010) bases his reasoning on previous studies stating that larger firms may be more cautious in their expressions to avoid political and legal costs. Moreover, Curtis (1998) suggests that firms subject to media attention might have motives to influence readers' perceptions, which is further reasoning for including size as a control variable. Following Huang et al. (2014), *SIZE* is calculated as the logarithm of market value of equity year 2013.

Future Growth Opportunities, BTM and RET

In accordance with Li (2010) and Huang et al. (2014), the Book-to-Market ratio (*BTM*) is controlled for as it represents investment opportunities and growth potential, which could affect the level of tone. Accordingly, Davis and Tama-Sweet (2012) expect that managers of high-growth firms have incentives to report information strategically, which might affect the tone level. *BTM* is therefore considered an appropriate control variable when investigating tone, and included in all tone regressions.

Similar to *BTM*, *RET* is also considered to capture future performance opportunities (Huang et al., 2014), and is included in previous tone studies as a control variable. The *RET* variable is therefore included as a control variable in all tone regressions. Hence, both *BTM* and *RET* are calculated based on the current financial position. Nevertheless, the ratios include information about future performance beyond what is conveyed in *EARN*, and thus represent future growth opportunities (Huang et al., 2014).

3.4 Measuring Tone and Abnormal Accruals

3.4.1 Tone (*TONE*)

Scholars have used different approaches in order to measure the tone of various management documents; however, there are two general approaches for conducting content analysis: the dictionary approach and the statistical approach (Li, 2010). Out of these two, the dictionary approach appears more commonly within financial research and “maps” words into different categories based on predefined rules (Li, 2010; Loughran & McDonald, 2011). The statistical approach, on the other hand, relies on statistical techniques such as measuring the correlation between the frequencies of certain key words (Li, 2010).

For the purpose of this thesis, the dictionary approach is considered appropriate, mainly as it is the most commonly used approach within textual analysis (Li, 2010). Furthermore, the purpose is to measure percentages of words within specific categories, i.e. positive and negative, which justifies the dictionary approach (Li, 2010). The tone of CEO letters is thus measured by the amount of positive and negative words included in the text by using a predetermined word list, i.e. dictionary. Within the dictionary approach, the Harvard Psych sociological Dictionary (General Inquirer, GI) and the software program DICTION are frequently used as categorization tools to evaluate the tone of financial texts (e.g. Henry, 2008; Loughran & McDonald, 2011; Craig & Brennan, 2012). However, Loughran and McDonald (2011) found that particularly the GI dictionary is not designed with the purpose to fit financial research since several words identified as negative (73.8%), typically are not considered negative in financial contexts. The authors therefore address this issue and develop a word list, based on GI, more suitable to financial research. Although the dictionary has been used in previous research, it is not considered appropriate for the purpose of this thesis due to its magnitude. Henry (2008) studies the tone of earnings press releases and its impact on investors, and provides a more manageable dictionary. Thereof, the dictionary provided by Henry (2008) is used and serves as the foundation for the development of the customized dictionary used in this thesis (words marked with asterisk in Appendix 2).

The dictionary of this thesis is created by manually reviewing CEO letters of various firms listed on the London Stock Exchange. The letters are manually analyzed by their content in order to detect and classify words as either positive (e.g. *delighted*, *pleased*, *excellent*) or negative (e.g. *disappointed*, *unfavorable*, *weak*). In order to avoid bias, these letters do not refer to the firms included in the sample of this thesis. The advantage with manual content analysis is that the content analysis becomes more precise, detailed and tailored with regards to the specific research setting (Li, 2010). The final dictionary is presented in Appendix 2. In line with Loughran and McDonald (2011) and Huang et al. (2014), if negations (*no*, *not*, *none*, *neither*, *never* and *nobody*) are used immediately before a positive word, the positive word is counted as negative. To the extent possible, grammatical and linguistic features are taken into consideration with the purpose to capture the style of writing.

Due to access limitations, computer software such as DICTION is not used in this thesis. Instead, the execution phase is conducted manually using a spreadsheet software searching for predetermined words. Subsequently, the CEO letters of the sample firms are imported into the spreadsheet software and scanned for words based on the customized dictionary. The tone of the text (*TONE*) is thereafter measured as a frequency count of the words included in the dictionary. The *TONE* variable is calculated based on the equation provided by Henry (2008):

$$TONE = (\#positive\ words - \#negative\ words) / (\#positive\ words + \#negative\ words) \ (a)$$

The above equation equals to a scale within a minimum value of -1 and a maximum value of +1. *TONE* equal to 0 suggests a neutral usage of positive and negative words whereas -1 (+1) suggests no usage of positive (negative) words. The result from the above equation is thereafter used in the regression model to identify the abnormal level of tone (see 3.5.2.1).

3.4.2 Abnormal Accruals (*ABACC*)

In order to measure the magnitude of accruals-based earnings management, a calculation of total accruals is firstly executed, followed by a model to measure abnormal accruals (Healy & Wahlen, 1999). Total accruals are subsequently regressed in order to identify which accruals that belong to the operating activities of the firm e.g. sales revenue, accounts receivables and fixed assets (Healy & Wahlen, 1999). Remaining accruals left undefined thus exceed the normal and could indicate earnings management. Based on this along with prior studies on accruals-based accounting, the chosen models to measure abnormal accruals for this thesis are presented below. Following previous studies, the accruals regression is run for each one-digit ICB code combination in order to control for industry differences.

$$TAcc_{jt} = EBEL_{jt} - CFO_{jt} \ (b)$$

Where:

TAcc = Total accruals scaled by lagged total assets,
 EBEL = Earnings before extraordinary items,
 CFO = Cash flow from operations,
 j= firm; and
 t= year

$$TAcc_{jt} = \beta_0 \left(\frac{1}{Assets_{j,t-1}} \right) + \beta_1 (\Delta Sales_{jt} - \Delta AR_{jt}) + \beta_2 PPE_{jt} + \varepsilon_{jt} \ (c)$$

Where:

Assets = Total assets,
 Δ Sales= Change in sales scaled by lagged total assets,
 Δ AR= Change in accounts receivable from operating activities scaled by lagged total assets; and
 PPE= Gross property, plant and equipment scaled by lagged total assets
 ε = Regression residual⁵

⁵ Abnormal Accruals (*ABACC*)

Both models are extracted from Huang et al. (2014). The cross-sectional modified Jones model (c) is chosen to measure abnormal accruals, firstly, as it is commonly used within accruals-based accounting studies, and secondly, as the model takes credit sales manipulation into account (Teoh et al., 1998; Geiger & North, 2011; Huang et al., 2014).

Following Huang et al. (2014), a constant ($1/\text{Assets}$) is included in the model. The inclusion of the constant varies among scholars. However, Kothari, Leone and Wasley (2005) state the constant to be important for the model, as the exclusion of it would bias the result and make the accruals measure less symmetrical. The inclusion of the constant would thus enhance the ability to address the research problem (Kothari et al., 2005). Additionally, abnormal accruals are expressed through the error term (ϵ). The advantage with measuring accruals as the residual value (ϵ) is, according to Dechow et al. (2010), that such models attempt to isolate the managed or error component of accruals, and the models have become accepted within financial research. Thus, the identification of abnormal accruals is simplified.

3.5 Statistical Analysis

3.5.1 Initial Data Analysis

An initial analysis of the variables is performed before executing further statistical analyses in order to identify potential outliers, or extreme values, that might bias subsequent analyses. Variables that show extreme skewness and kurtosis diverge from the normal distribution (Collis & Hussey, 2014) and are thus winsorized to suit future analyses. The essence of winsorization is not excluding extreme values, but rather alters the original data by setting extreme values equal to specified percentiles of the distribution (Leone, Minutti-Meza & Wasley, 2014). In this thesis, extreme values are winsorized to the 1 and/or 99 percentiles. Although winsorization of data is common among researchers, Leone et al. (2014) emphasize the potential problems with winsorizing data. The extreme values might not be results from error computations, but could rather be effects of the business environment and thereby improve estimation efficiency if kept unadjusted (Leone et al., 2014). Nevertheless, Newbold, Carlson and Thorne (2010) present descriptive evidence of the problematic with extreme values, or outliers, and the winsorization level is therefore set to 1%. Because of the debate concerning ad hoc data modifications, such as winsorization (see Leone et al., 2014), the statistical analyses containing non-winsorized data is presented in Appendix 3.

3.5.2 Correlation Analysis

Drawing on the research design and the quantitative characteristics of this thesis, statistical analyses of variables are conducted. Firstly, bivariate analyses including all variables are executed in order to gain additional information about the associations of two variables. As the majority of the variables are continuous and parametric, i.e. ratios or intervals, the Pearson's correlation coefficient is applied. The correlation intends to measure the strength and direction of a linear relationship (Collis & Hussey, 2014). Although, correlation analyses do not determine the causation of dependent and independent variables respectively, it is of particular use for this thesis as it enables the authors to avoid issues related to multicollinearity. Multicollinearity is the situation when two variables are highly correlated and could thus damage the effect of multiple regressions (Blumberg, Cooper & Schindler, 2011).

In accordance with Collis and Hussey (2014), Pearson's correlation analysis is complemented with bivariate scatterplot analysis, which allows for additional interpretation of associations between two variables visually (see Appendix 3). This enables the authors to study patterns of points in graphs, which give an indication of the strength and direction of a linear relationship (Collis & Hussey, 2014) and detects potential extreme values that could affect the correlation.

3.5.3 Multiple Regression Analysis

The Pearson's correlation analysis is of importance when examining the correlation between two variables. However the analysis fails to explain the correlation between several variables (Blumberg et al., 2011). Instead, the multiple regression analysis is used as complement to examine the association between the dependent variables and several independent variables. Thus, the multiple regression analysis allows the user to explicitly control for several factors that simultaneously might affect the outcome of the dependent variable (Wooldridge, 2013).

Multiple factors could affect the level of tone in CEO letters, and it is therefore advantageously to test associations between variables through multiple regression analysis. H_1 and H_3 are tested using Ordinary Least Square (OLS) regressions. The OLS regression enables the user to determine the effect of the independent variables on the dependent variables whilst simultaneously controlling for factors that might influence the association (Wooldridge, 2013). Hence, referring to H_1 and H_3 , the OLS regression analysis is considered an appropriate statistical analysis method based on the normally distributed dependent variables. Furthermore, the model is considered particularly appropriate when identifying abnormal values since the model generates an error term (ϵ), which count for the value unexplained by the control variables and thus classifies as abnormal (Wooldridge, 2013).

The dependent variable in H_2 is *ABPOS*, a dummy variable derived from *ABTONE*. The *ABPOS* variable is further characterized as binary since the outcome of the variable is either 1 or 0, which disables the use of OLS regression analysis. The distribution is further identified as binomial (Rabe-Hesketh & Everitt, 2004), and logistic regression analysis is therefore appropriate in order to test H_2 . Whilst the OLS regression calculates the correlation between the dependent and independent variables, the logistic regression calculates the probability of receiving a certain event of interest (Rabe-Hesketh & Everitt, 2004). The interpretation of the logistic regression model therefore differs from the OLS regression model.

The issue with multicollinearity, which is often related to multiple regression analysis, is prevented through conducting bivariate analysis (see section 3.5.2). Furthermore, in order to control for heteroskedasticity, and increase the robustness of the findings, the robust standard error is included when running the OLS regressions (Wooldridge, 2013). Due to the composition of the logistic regression model, the heteroskedasticity issue is automatically counted for (Wooldridge, 2013).

3.5.3.1 Regression models

Similar to previous tone studies (e.g. Davis & Tama-Sweet, 2012; Huang et al., 2014) the regressions of this thesis are annual cross-sectional regressions of *TONE*, *ABPOS* and *ABTONE* on determinants previously explained in section 3.3. Specifically, the regressions are⁶:

$$H_1: TONE = \beta_0 + \beta_1 EARN + \beta_2 SIZE + \beta_3 BTM + \beta_4 RET + \varepsilon \quad (1)$$

$$H_2: P(ABPOS = 1) = \beta_0 + \beta_1 EARN + \beta_2 LOSS + \beta_3 SIZE + \beta_4 BTM + \beta_5 RET + \beta_6 EARN_LOSS + \varepsilon \quad (2)$$

$$H_3: ABTONE = \beta_0 + \beta_1 ABACC + \beta_2 EARN + \beta_3 LOSS + \beta_4 SIZE + \beta_5 BTM + \beta_6 RET + \beta_7 EARN_LOSS + \varepsilon \quad (3)$$

3.6 Data Collection

The collected data have both quantitative (numbers) and qualitative (narratives) characteristics (Collis & Hussey, 2014). The quantitative data refers to the financial figures needed to measure earnings management and tone management, and is collected from the database Datastream, provided by Thomson Reuters. The variables used to collect firm information from Datastream are provided in Appendix 4. Due to the limitation of Datastream, the sample firms are collected through MiFID Database, provided by the European Securities and Markets Authority (ESMA). The version date is set to 31-12-2013 in order to capture the firms listed on the London Stock Exchange by the end of year 2013.

The qualitative data refer to the measurement of tone, which is executed using the CEO letters of annual reports (see section 3.4.1), as annual reports are accessible and directed to the firm's most important audience, i.e. its stakeholders (Hildebrandt & Snyder, 1981). Further on, the textual information will be translated into numerical form in order to determine the tone variable. In other words, the qualitative data will transform into quantitative.

3.7 Reliability and Validity

In general terms, quantitative studies possess high levels of reliability and relatively low levels of validity (Collis & Hussey, 2014). The reliability of this thesis is strengthened by the providence of the word list and sample used to calculate tone (see Appendix 1 and 2), which otherwise could affect the degree of reliability.

To enhance the validity of this thesis, several aspects are taken into consideration throughout the execution phase. Firstly, only CEO letters or equivalent letters signed by the CEO or the President are included in the final sample in order to increase validity and secure consistent application. Secondly, equal amount of positive and negative words is used to ensure that no category is overly represented. Also, to the extent possible, the power of the words balances each other (for example fortunately and unfortunately). Thirdly, regarding certain words, the spelling of both American and British English is acknowledged with the purpose to capture these words. Finally, as stated in section 3.4.1, if negations appear immediately before a positive word, the positive word is characterized as negative.

⁶ Industry variables are included in all regressions, but not reported.

3.8 Limitations

Additionally, it is acknowledged that this thesis involves limitations. Firstly, the classification of positive and negative words partly involves judgments made by the authors. Moreover, the meaning of some words might not be fully captured since the meaning is determined by the context. For example, the directional words *increase* and *decrease* could appear in both positive and negative circumstances due to their ambiguous nature. However, Henry (2008) provides results confirming that *increase* (*decrease*) in majority appears in a positive (negative) context. Despite its limited nature, the approach is commonly applied and thereby considered appropriate for the purpose of this thesis.

Finally, a final sample of 415 firms can be perceived as small in order to make generalizations about a population. Furthermore, the sample size is considered large enough to address the research problem (Collis & Hussey, 2014), and test the hypotheses.

4. Empirical Results and Analysis

This chapter presents the empirical results of the statistical tests performed in this thesis, and their implications for the tested hypotheses. The introductory part of the chapter presents descriptive statistics, which aim to present a numerical summary of the variables used in the statistical analysis. The introductory part is followed by a presentation of the correlation analysis, which thereafter concludes in the multiple regression analysis. Throughout the chapter, empirical results are analyzed with regards to previous literature.

4.1 Descriptive Statistics

Table 4.1.1 Descriptive Statistics

Number of observations: 415

Variable	Mean	Median	Std.Dev	P1	P99	Skewness	Kurtosis
<i>TONE</i>	0.6560	0.6761	0.2056	-0.2121	1	-0.9717	4.5327
<i>EARN*</i>	0.0480	0.0473	0.0899	-0.3390	0.2686	-1.0622	7.7633
<i>SIZE</i>	5.9124	5.9307	0.9034	3.2646	8.2393	0.0104	3.0090
<i>BTM*</i>	0.6822	0.5176	0.6143	-0.1545	3.5975	2.1637	9.6696
<i>RET**</i>	0.2691	0.2411	0.4339	-0.8071	2.0455	0.9811	6.0660
<i>LOSS</i>	0.1590	0	0.3662	0	1	0.1341	4.4770
<i>ABTONE</i>	-1.06e-10	0.0109	0.1730	-0.5131	0.4799	-0.6743	4.2268
<i>ABACC</i>	0.9353	0.4047	4.4958	0.0002	87.5967	17.5240	334.9104
<i>ABPOS</i>	0.5277	1	0.4998	0	1	-0.1110	1.0123
	* Winsorized at the 1% level in order to minimize the impact of outliers						
	** Winsorized at the 1% level, high only, in order to minimize the impact of outliers						

The table above presents descriptive statistics regarding the variables included in the statistical tests. The *TONE* variable results in a mean (median) of 65.60% (67.61%), indicating that the total level of tone in CEO letters is generally positive. The 99 percentile present a value of 1, which implies the occurrence of no negative words among the sample firms. Huang et al. (2014) present a mean (median) of 43% (42%), which corresponds to the figures of Henry (2008) who presents a mean (median) of 56.80% (60%). The descriptive statistics in this thesis are mainly compared to the descriptives of Henry (2008) due to the similarities in measuring tone. Hence, the descriptive statistics (table 4.1.1) reveal resemblance with previous literature and confirms that the general level of tone in CEO letters is similar to the general tone in earnings press releases. Furthermore, the *ABTONE* variable reveals a somewhat negative mean value and a somewhat positive median value. However, low values are expected since *ABTONE* is a regression residual.

As described in section 3.5.1, some variables are winsorized in order to fulfill the OLS regression requirement of normal distribution. The raw data, i.e. the non-winsorized values are presented in Appendix 3.

Table 4.1.2 Binary Variables

Variable		Count
<i>ABPOS</i>	1 = <i>ABTONE</i> > 0	219
	0 = <i>ABTONE</i> ≤ 0	196
	TOTAL	415
<i>LOSS</i>	1 = <i>EARN</i> < 0	66
	0 = <i>EARN</i> ≥ 0	349
	TOTAL	415

The above table presents the distribution of the binary variables. The numbers reveal that just over half of the sample firms employ abnormal positive tone according to the chosen proxy (*ABTONE* > 0). The table is not involved in the hypotheses tests, but contributes to the discussion in chapter five.

4.2 Correlation Analysis

Table 4.2 Pearson’s Correlation Analysis

Number of observations: 415

	<i>TONE</i>	<i>EARN</i>	<i>SIZE</i>	<i>BTM</i>	<i>RET</i>	<i>LOSS</i>	<i>ABTONE</i>	<i>ABACC</i>	<i>ABPOS</i>
<i>TONE</i>	1								
<i>EARN</i>	0.2969* (0.0000)	1							
<i>SIZE</i>	0.3787* (0.0000)	0.2313* (0.0000)	1						
<i>BTM</i>	-0.3721* (0.0000)	0.4034* (0.0000)	-0.4444* (0.0000)	1					
<i>RET</i>	0.2483* (0.0000)	0.3297* (0.0000)	0.0138 (0.7795)	-0.3406* (0.0000)	1				
<i>LOSS</i>	-0.2535* (0.0000)	-0.6714* (0.0000)	-0.2710* (0.0000)	-0.3134* (0.0000)	-0.2217* (0.0000)	1			
<i>ABTONE</i>	0.8414* (0.0000)	0.0000 (1.0000)	0.0000 (1.0000)	-0.0000 (1.0000)	0.0000 (1.0000)	-0.0291 (0.5540)	1		
<i>ABACC</i>	0.0114 (0.8165)	0.0448 (0.3630)	-0.0193 (0.6945)	0.0489 (0.3206)	-0.0326 (0.5084)	-0.0415 (0.3991)	0.0400 (0.4158)	1	
<i>ABPOS</i>	0.6242* (0.000)	-0.0395 (0.4224)	-0.0542 (0.2708)	0.0202 (0.6818)	-0.0394 (0.4229)	0.0155 (0.7536)	0.7694* (0.0000)	0.0277 (0.5734)	1

* Indicate significance at the 5% level

The purpose of the Pearson's correlation analysis is as described in section 3.5.2 to explore the correlation between two variables, and further to detect issues of multicollinearity before conducting the multiple regression analysis. The correlation coefficient expresses the relationship between two variables given different levels of significance (Blumberg, 2011). The intercorrelations are presented in table 4.2 and reveal no indication of multicollinearity, as the majority of the correlation coefficients are considered low (Collis & Hussey, 2014)⁷. Although, the variables *TONE*, *ABTONE* and *ABPOS* are arguably highly intercorrelated, however this result is expected since *ABTONE* is the residual from regressing *TONE*, and *ABPOS* is a dummy variable generated from *ABTONE*. The issue of multicollinearity is thus not present since the variables are not used simultaneously in the regressions.

The correlation between *LOSS* and *EARN* (-0.6714) is according to Collis and Hussey (2014) interpreted as medium and the question to include both variables simultaneously in the multiple regression analysis therefore arises. This potential issue is considered by including the interaction variable *EARN_LOSS* in regressions (2), (3) where both variables are used simultaneously. Furthermore, Collis and Hussey (2014) state that variables with low or medium correlation coefficients will not create bias in subsequent statistical analyses.

4.3 Multiple Regression Analyses

The below tables present the empirical data resulting from the multiple regression analyses. The aim of the regression on total accruals (see 3.4.2) is to collect the variable *ABACC*, and the regression is therefore not presented in this context. The dummy variable *ICB* is included in all regressions, but not further reported in tables 4.3 (I), (II). The *p*-values are used in the decision to accept or reject the null hypotheses regarding both the OLS regressions and the logistic regression. The alternative hypotheses are considered supported if *p* < the level of significance. The regression models used in the statistical tests are presented below.

$$H_1: TONE = \beta_0 + \beta_1 EARN + \beta_2 SIZE + \beta_3 BTM + \beta_4 RET + \varepsilon \quad (1)$$

$$H_2: P(ABPOS = 1) = \beta_0 + \beta_1 EARN + \beta_2 LOSS + \beta_3 SIZE + \beta_4 BTM + \beta_5 RET + \beta_6 EARN_LOSS + \varepsilon \quad (2)$$

$$H_3: ABTONE = \beta_0 + \beta_1 ABACC + \beta_2 EARN + \beta_3 LOSS + \beta_4 SIZE + \beta_5 BTM + \beta_5 RET + \beta_6 EARN_LOSS + \varepsilon \quad (3)$$

7

(-)0.90 to (-)0.99 (very high correlation)

(-)0.70 to (-)0.89 (high correlation)

(-)0.40 to (-)0.69 (medium correlation)

0 to (-)0.39 (low correlation)

Table 4.3 Multiple Regression Analyses

<i>VARIABLES</i>	<i>TONE (1)</i>	<i>ABPOS (2)</i>	<i>ABTONE (3)</i>
<i>EARN</i>	0.3075* (0.022)	-1.7564 (0.364)	-0.2084 (0.213)
<i>SIZE</i>	0.0638** (0.000)	-0.0858 (0.515)	-0.0037 (0.728)
<i>BTM</i>	-0.0394 (0.070)	-0.0123 (0.955)	0.0078 (0.646)
<i>RET</i>	0.0579** (0.007)	0.2613 (0.332)	0.0029 (0.888)
<i>LOSS</i>		-0.1413 (0.718)	-0.0151 (0.722)
<i>EARN_LOSS</i>		0.5808 (0.858)	0.3764 (0.275)
<i>ABACC</i>			0.0015** (0.0005)
<i>Observations</i>	415	415	415
<i>R-squared</i>	0.2921	0.0102	0.0082

* Indicate significance at the 5% level

** Indicate significance at the 1% level

Robust *p*-statistics in parentheses

Industry effects are included in all regressions but not reported

4.3.1 Hypothesis Testing

The purpose of applying multiple regression analysis is, for this thesis, to empirically test the previously presented hypotheses. The results are interpreted and analyzed in the sections below and the data referred to is presented in tables 4.3 (above). Furthermore, the support, or lack of support, of the hypotheses is summarized in table 4.3.1.

The R^2 value, i.e. the square of the multiple correlation coefficients, expresses the strength of the linear relationship between the independent variables and control variables and the dependent variable (Newbold et al., 2010). Hence, the R^2 explains the fit between the variables and the model, and thus to what extent the dependent variable is explained by the independent variables and control variables (Newbold et al., 2010). The R^2 value will be commented on, however not further discussed, in relevant sections.

4.3.1.1 Tone and Financial Performance

The correlation coefficients resulting from regression (1) reveal, as expected, a positive association (0.3075) between *TONE* and *EARN*, and the *p*-value (0.022) indicates significant association at the 5% level, after controlling for firm fundamentals. Thereby, the empirical results provide evidence to support H_1 , and H_0 is therefore rejected. Significant positive associations are also presented regarding *SIZE* and *RET*, which indicates that the association between tone and firm fundamentals to great extent is positive. The exception is *BTM*, which display a negative and insignificant association with *TONE*. The square of

the multiple correlation coefficient (R^2) is 0.2921, indicating that 29.21% of *TONE* is explained by *EARN*, *SIZE*, *BTM* and *RET*.

Interpretation of the regression results reveals that the tone in CEO letters can be derived from financial performance, company size and annual stock return. Considering financial performance, the association confirms the expected outcome and present empirical evidence of a significantly positive association between *TONE* and *EARN*, indicating that the level of tone in CEO letters increases in line with firm performance. The direction and magnitude is further strengthened by the Pearson's correlation analysis, which presents a positive and significant correlation (0.2969). Furthermore, in accordance with Davis and Tama-Sweet (2012), the empirical results present firm performance to be the main determinant of tone due to its relative high explanatory power. Moreover, scholars (e.g. Amernic & Craig, 2007; Merkl-Davies & Brennan, 2007; Henry, 2008) argue that when profits are high, management tend to use a positive language as a result of good management, which also support the findings of a positive correlation between firm performance and tone.

More so, the positive and significant correlation between firm size and tone indicate that tone increases with the size of the firm. Curtis (1998) argues that firms subject to media attention might have motives to influence readers' perceptions, which could explain the positive correlation. In contradiction to the empirical findings, Li (2010) and Huang et al. (2014) present an inverse relationship between tone and size, indicating that larger firms employ less positive tone. Based on previous research, Li (2010) argues that larger firms might have incentives to be cautious in their expressions to avoid political costs, and thus moderate the tone. Nevertheless, the Pearson's correlation analysis (table 4.2) presents a positive and significant correlation of 37.87%, which when controlling for firm fundamentals is still significant, although lower.

The control variables representing future growth opportunities (*RET* and *BTM*) present different empirical results. Similar to firm size, the *RET* coefficient reveal a significant positive association between stock returns and tone in CEO letters. These results indicate that the tone increases in line with stock returns, which is also confirmed by Li (2010). On the contrary, the *BTM* coefficient reveals a negative association. However, due to the insignificance of the correlation, the effect of *BTM* on tone in CEO letters cannot be determined. Nevertheless, when not controlling for firm fundamentals, the Pearson's correlation analysis reveals a negative and significant correlation between tone and *BTM*, which is consistent with the findings of Huang et al. (2014). Implications for *BTM* are further discussed in chapter five.

4.3.1.2 Abnormal Positive Tone and Financial Performance

H_2 , i.e. the probability of observing abnormal positive tone as financial performance decreases, is tested through logistic regression analysis. The empirical results, table 4.3 and regression (2), present negative β -values, which indicate that an increase in the independent variables result in decreased probability that the event will occur. However, the results are not significant at conventional levels and H_2 can thus not be considered supported, leading to acceptance of H_0 . The R^2 value is 0.0102, revealing that *ABPOS* is to 1.02% explained by the independent and control variables.

Huang et al. (2014) state that management abuses abnormal positive tone when firm fundamentals are poor. Furthermore, Huang et al. (2014) explain that quantitative information can be used to signal better future prospects, which also aligns with Hildebrandt and Snyder (1981) and Rutherford (2005).

Specifically, Hildebrandt and Snyder (1981) imply that years with poor performance include positive statements, i.e. the tone is inconsistent with true financial performance resulting in abnormal positive tone. Despite these indications of a relation between abnormal positive tone and financial performance, the insignificant empirical results of this thesis cannot justify such documentation in the CEO letter.

4.3.1.3 Abnormal Tone and Abnormal Accruals

Regression (3) aims to test the relationship between the abnormal tone in CEO letters and abnormal accruals (H_3). The alternative hypothesis states a positive association, meaning that tone management and earnings management are expected to be present simultaneously. The empirical results present positive correlation (0.0015) between *ABTONE* and *ABACC*, after controlling for firm fundamentals. The p -value of the correlation (0.0005) reveals statistical significance of the correlation between the two variables. However, table 4.3 reveals no other correlations in regression (3) to be statistically significant. Still, the association of interest is significant and positive, and H_0 is therefore rejected in favor of H_3 . The R^2 value of regression (3) is 0.0082, which is considered low but yet accepted.

Although the correlation coefficient (0.0015) could be considered low, Huang et al. (2014) explain that a low correlation between abnormal accruals and abnormal tone might be because of estimation errors. This explanation could be considered valid in this case since both abnormal accruals and abnormal tone are residual values. Nevertheless, the correlation is highly significant (0.0005), and the results can thus be used to reject the null hypothesis.

Thereby, as anticipated, the statistical findings present a positive significant association between abnormal tone in CEO letters and abnormal accruals, which in turn supports the main purpose of this thesis. The findings are in accordance with Huang et al. (2014) who provide similar result in earnings press releases. Drawing on the results presented in table 4.3 along with the literature, the positive association indicates that tone management and earnings management co-occur as complements, and are thus not substitutes. Furthermore, Schrand and Walther (2000) touch upon the co-occurrence of tone management and earnings management as they imply that strategic disclosure and earnings management are interrelated. As earnings management could occur everywhere in financial reporting (Schipper, 1989), the CEO letter evidently functions as a channel for strategic reporting based on the presented empirical findings.

The presented association is further supported by the similar incentives behind the two management behaviors, for instance, the desire to mislead stakeholders by misrepresent firm performance (Leuz et al., 2003; Li, 2008; Huang et al., 2014). Li (2010) expects the association between tone and accruals to be positive when incentives to mislead investors are present. Considering the purpose to test abnormality, the positive correlation between abnormal tone and abnormal accruals could thus indicate the presence of incentives to manipulate users' perceptions.

Table 4.3.1 Summary Hypotheses tests

<i>H₁ Tone in CEO letters is positively associated with financial performance</i>	Supported
<i>H₂ The probability of observing abnormal positive tone in CEO letters increases as financial performance decreases</i>	Not supported
<i>H₃ Abnormal tone in CEO letters is positively associated with abnormal accruals</i>	Supported

5. Discussion

The chapter includes discussions surrounding the role of the CEO letter with respect to the empirical findings and analyses presented in chapter four, together with personal reflections made by the authors. Additionally, the chapter evolves from the introducing chapters of this thesis concerning the issues surrounding the subject. Finally, the chapter serves as foundation to the concluding remarks in following chapter.

Throughout the thesis, the CEO letter is argued to be an important document for users of annual reports. Several scholars state that the letter is a significant narrative document through which management have opportunities to express beliefs and values to their stakeholders. For instance, Huang et al. (2014) state that accounting narratives are important in order to understand quantitative information. Furthermore, scholars state the letter to be informative, since it addresses past and future events (McConnell et al., 1986). However, whether the information is useful or not has been discussed in prior literature. McConnell et al. (1986) and Abrahamson and Amir (1996) argue for its usefulness as the content of the CEO letter could be used to assess future performance. However, one could argue that such letters are only completely useful when they possess a neutral tone, i.e. when tone reflects firm fundamentals. Thus, when management employ abnormal tone in CEO letters, information asymmetry might increase since users are forced to read between the lines in order to hold accurate perceptions about the firm. Consequently, when collection of information is obstructed, earnings forecasts, investment decisions and other stakeholder actions might be biased and the usefulness of the CEO letter thus decreases.

The findings presented in table 4.3 regression (2), reveal insignificant results, yet negative coefficients. Due to the insignificant results, no further conclusions can be drawn regarding the probability of observing abnormal positive tone when financial performance decreases. The outcome is unfortunate since the directions of the coefficients align with statements made by previous scholars. Nevertheless, based on these statements (see Hildebrandt & Snyder, 1981; Rutherford, 2005; Huang et al., 2014; Tan et al., 2014), one could believe that firms with decreased financial performance are more prone to engage in tone management. In fact, table 4.1.2 reveals that 219 firms employ abnormal positive tone. This together with the results in table 4.3 indicates that abnormal positive tone exists, but might be explained by other factors than included in the regression model (2). Regardless of the causes behind abnormal positive tone, one could advocate it to be problematic since firm fundamentals would be misrepresented. Consequently, in such cases, the information provided in the CEO letter would conflict with basic financial premises, such as true and fair view, and lower the quality of the reported content. Engagement in tone management is therefore considered problematic. Moreover, Huang et al. (2014) document a reversal effect in future earnings when abnormal positive tone is present. The authors conclude the reversal effect to result from overestimated reactions to abnormally positive earnings announcements, which points towards the drawbacks with employing abnormally positive tone. The drawbacks are also stressed in the research by Tan et al. (2014), who state the risk of positive language to “backfire”.

Considering the negative subsequent market reaction, why do firms engage in tone management? One answer could be short-term thinking. The reversal effect reveals positive market reactions immediately after the earnings announcement, which could explain tone management behavior. More so, firms might find it necessary to contemporary satisfy investors through employing abnormal positive tone and signal

good future prospects. As with the free nature of the CEO letter, along with studies revealing a positive reaction to distorted statements about true financial performance, incentives to manage tone in CEO letters when profits are down, are arguably present. Another answer to the use of tone management could be attribute framing, i.e. when users' perceptions about identical items differ depending on the tone used to describe certain attributes. Hence, if management possesses this knowledge, attribute framing creates an incentive to use optimism in CEO letters as the reader would perceive performance to be better than indicated by financial figures.

Tone could also be negatively managed, i.e. abnormal negative tone. To clarify, this is the case when firm performance is positive, but the tone is downwardly managed. Incentives to decrease the level of tone in CEO letters could be present when firms are subject to political litigation costs or being accused of monopolistic behavior, which mainly involve large firms. The empirical findings reveal a negative association between firm size and abnormal tone. However, these findings are not statistically significant, and one could therefore not draw any conclusions based on the results since a potential alternative hypothesis would be unsupported. Additional reason to downwardly bias the tone could be the growth opportunities of the firm. Considering Li (2010), it could be assumed that fast growing firms, facing uncertain economic environment are cautious in their disclosures, and thus less positive. On the other hand, with respect to Huang et al. (2014), who propose the opposite, one may also assume that a fast growing firm is optimistic about the future, causing it to employ a more positive tone.

Aligned with incentives to employ abnormal tone, incentives behind earnings management behavior reasonably resemble. With inspiration from Leuz et al. (2003) and Dechow et al. (2010), one may interpret that there are incentives to engage in earnings management in order to distort users' perceptions when firm performance is poor. Based on the literature along with the empirical findings, firms may through the CEO letter provide positive statements, commenting on their *excellent* sales for instance, although these could be mainly driven by an abnormal amount of accruals. In this case, neither the tone nor the revenues reflect true firm fundamentals. Thus, this could be considered the case where the two management behaviors complement each other. The positive association between abnormal tone and abnormal accruals is justified through empirical findings, and this reasoning about the two behaviors is thus valid.

Referring to the discussion about the usefulness of the CEO letter, the co-occurrence of tone management and earnings management reasonably lowers the usefulness of both the CEO letter and reported earnings. Abnormal accruals have been defined to possess low earnings persistence, and thus low earnings quality, which further results in decreased information usefulness. Furthermore, Li (2010) states that a positive association between tone and accruals indicates that management has incentives to report strategically. Hence, when including abnormality, one could expect the co-occurrence of the two behaviors to be opportunistic, and that management is aware of the decreased information quality. More so, the intention to change users' perceptions about firm fundamentals could be considered present when tone management and earnings management operate jointly.

However, both the occurrence of tone management and earnings management could, according to previous research, be unintentional. For example, Huang et al. (2014) mention that tone management could be applied for informative purposes, i.e. when firm fundamentals are better than presented by

financial figures. One could also assume that due to complexity or uncertainties in operations, management apply higher or lower tone in order to explain certain events, excluded from the financial reporting, and thus reduce information asymmetry. Drawing on the same reasoning, complexity in business operations or uncertainties in the business environment could increase the level of accruals due to the requirements of estimation of future events, and the composition of the accounting regulation. Thereof, the positive association between tone management and earnings management could be of informative purposes rather than strategically purposes. Nevertheless, throughout the thesis and in line with previous literature (see Curtis, 1998; Li, 2010; Huang et al., 2014), the intentions behind abnormality in tone and accruals are considered strategic. Hence, the jointly occurrence of tone management and earnings management is considered to depend on strategic purposes rather than informative purposes.

6. Concluding Remarks

This chapter aims to present concluding remarks with regards to previously presented chapters, the purpose and stated hypotheses.

The main purpose throughout this master thesis is to establish whether there is a positive association between tone management in CEO letters and earnings management in firms listed on the London Stock Exchange during year 2013. The additional purpose is to establish the potential association between tone in CEO letters and financial performance. In the execution phase, the authors develop a customized dictionary to fit with the stated purpose, which subsequently enables the authors to determine the level of tone in CEO letters. The execution phase continues in correlation analysis and multiple regression analysis in order to determine the support, or lack of support, of the hypotheses. Based on the results accomplished in this study, several conclusions can be established along with strengthened contribution to accounting theory within the area of accounting narratives, a field that is still emerging and thus relatively underexplored.

Overall, the empirical analyses in this thesis present mixed findings with regards to initial expectations. Referring to the descriptive statistics, the tone in CEO letters appears to be generally positive according to the mean and median values. Given the role of the CEO letter and the stated fact that it is unregulated, it is not surprising that the tone appeared generally positive among the sample firms. Furthermore, the CEO letter is, according to previous scholars, the most read section of the annual report and previous research establish that the tone has an impact on investors and other users of the annual report. It is therefore credible that management uses this section to present positive statements about the firm. Thus, the importance of the CEO letter justifies both the generally positive tone and the empirical findings of a positive association between tone and financial performance. In conclusion, the CEO letter is established as a medium through which management communicate increased financial performance using positive tone. Furthermore, the empirical results reveal that the tone in CEO letters is derived, besides financial performance, from company size and annual stock return.

Finally, the findings reveal that abnormal tone and abnormal accruals are positively associated. This empirical finding argues for a situation where both tone management and earnings management are used simultaneously towards an opportunistic goal, to misrepresent firm fundamentals by managing tone in CEO letters and altering financial figures. Based on the empirical findings and the excessive room for opportunism, the general conclusion is that firms employ tone management in CEO letters to hide earnings management behavior. Hence, accounting narratives may not always better indicate firm fundamentals. This conclusion strengthens the fact that investors and other users of the annual reports should take a “hard look” at the qualitative information along with the quantitative information and consider the content before creating a general perception of the firm. Consequently, the findings further strengthen the role of the tone in CEO letters and highlight its influence when evaluating financial performance.

7. Suggestions for Further Research

This chapter aims to present suggestions for other research opportunities in accounting research within accounting narratives. As the area of lexical features is relatively underdeveloped, the suggestions mainly regard this area with respect to different approaches to capture and classify linguistic features in corporate communication channels.

The area of lexical features within accounting research is evolving, yet still developing. Due to the relatively late focus on accounting narratives, there are several opportunities for further research. This thesis targets tone management in terms of positive versus negative words in the CEO letter. Future studies could therefore concern other lexical features such as certain or uncertain language together with abnormal accruals. For example, abnormal accruals might be reported due to uncertain business environment. A language classified as “certain” would thus not be consistent with firm fundamentals and indicate abnormal use of language. Furthermore, extending the contributions of this thesis, one suggestion is to include additional control variables such as business complexity and firm age.

In addition, this thesis includes firms listed on the London Stock Exchange, suggestion for further research is therefore to incorporate other sample criteria and potentially compare the usage of tone management between different markets. Specifically, a comparison between UK listed firms and US listed firms could be interesting due to differences in accounting regulations. Also, inspired by Leuz et al. (2003), a further suggestion is to cluster firms in different groups, e.g. country, and study differences in language use between these groups.

Studying if annual reports are readable can further capture linguistics in corporate reports. Annual report readability refers to reading ease and concerns the extent to which accounting information is textually and/or visually readable. For example, Li (2008) finds that firms with less persistent earnings present complex disclosures with low readability. Tan et al. (2014) on the other hand study the co-occurrence of annual report readability and tone management in earnings press releases. As this thesis provides evidence that strengthens the important role of the CEO letter, a suggestion is to establish if abnormal tone and low readability are present simultaneously in CEO letters.

This master thesis is delimited to accounting narratives in CEO letters. On the other hand, the concept of impressions management is explained by Clatworthy and Jones (2006) as the tendency of individuals, or organizations, to selectively present data through graphics of narratives in order to positively influence the recipient's' perceptions about the presented information. With respect to impressions management, a suggestion for further research is to consider the information presented in various management communication channels together with the graphs surrounding the information. More specifically, a suggestion for further research is to investigate the use of impressions management in CEO letters together with the use of tone management.

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Appendix 1

Sample firms

3I GROUP PLC
888 HOLDINGS PLC
A.G. BARR PLC
ABBOTT LABORATORIES
ABERFORTH GEARED INCOME TRUST
ACACIA MINING PLC
ACAL PLC
AFREN PLC
AGA RANGEMASTER GROUP PLC
AIR CHINA LIMITED
ALTUS RESOURCE
ALUMASC GROUP PLC
AMEC FOSTER WHEELER
AMINEX PLC
ANA HOLDINGS INC
ANGLO AMERICAN PLC
ANGLO PACIFIC GROUP
ANGLOGOLD ASHANTI
ANITE PLC
ANTOFAGASTA PLC
APR ENERGY PLC
AQUARIUS PLATINUM
ARM HOLDINGS PLC
ASEANA PROPERTIES
ASHMORE GROUP PLC
ASIA RESOURCE
ASSOCIATED BRITISH
ASTRAZENECA PLC
AVEVA GROUP PLC
AVOCET
AVON RUBBER PLC
BABCOCK INT'L GROUP
BAE SYSTEMS
BALFOUR BEATTY PLC
BARLOWORLD LTD
BARRATT DEVELOPMENTS
BEALE
BELLWAY PLC
BERENDSEN PLC
BERKELEY GROUP
BG GROUP PLC
BHP BILLITON PLC
BIOQUELL
BISICHI MINING PLC
BLOOMSBURY
BODYCOTE
BOEING CO
BOOKER GROUP PLC
BOVIS HOMES GROUP
BP PLC
BRAEMAR SHIPPING
BRITISH LAND COMPANY
BRITISH POLYTHENE
BRITVIC PLC
BT GROUP PLC
BTG PLC
BUNZL PLC
BURBERRY GROUP
BWIN.PARTY DIGI
CABLE & WIRELESS
CADOGAN PETROLEUM
CAFFYNS PLC
CAIRN ENERGY PLC
CALEDONIA INVESTMENT
CANACCORD GENUITY
CAPE PLC
CAPITAL & COUNTIES PROPERTIES PLC
CAPITAL & REGIONAL
CAPITAL DRILLING
CAPITAL GEARING
CARCLO PLC
CARILLION PLC
CARNIVAL PLC
CARPETRIGHT PLC
CASH CONVERTERS
CATERPILLAR INC
CENTAMIN PLC
CENTAUR MEDIA PLC
CENTRICA PLC
CESC LIMITED

CHARLES STANLEY
CHEMRING GROUP PLC
CHIME COMMUNICATIONS
CITY OF LONDON
CITY OF LONDON GR
CLARKSON PLC
COATS GROUP PLC
COBHAM PLC
COLT GROUP
CONNECT GROUP PLC
CONSORT MEDICAL PLC
COSTAIN GROUP PLC
CRANSWICK PLC
CREIGHTONS PLC
CRESTON PLC
CRODA INTERNATIONAL
CSR PLC
DAILY MAIL & GENERAL
DAIRY CREST GROUP
DAIRY FARM INT'L
DARTY PLC
DATANG INTL
DCC PLC
DE LA RUE PLC
DEBENHAMS PLC
DECHRA PHARMA
DEE VALLEY GROUP PLC
DEV'T SECURITIES PLC
DEVRO PLC
DIAGEO PLC
DIALIGHT PLC
DOMINO PRINTING
DOMINO'S PIZZA GR
DP WORLD LTD
DRAGON OIL PLC
DRAX GROUP PLC
DRS DATA & RESEARCH
DS SMITH PLC
DUNELM GROUP PLC
E2V TECHNOLOGIES
EASYJET PLC
ELECTROCOMPONENTS
ELECTRONIC DP PLC
ELEMENTIS PLC
ENDEAVOUR INTL CORP
ENQUEST PLC
ENTERPRISE INNS PLC
ENTERTAINMENT ONE
ESSENTRA PLC
EUROPEAN ASSETS
EVRAZ PLC
EXPERIAN PLC
F&C ASSET MGMT
FENNER PLC
FIDESSA GROUP
FILTRONIC PLC
FINDEL PLC
FIRST QUANTUM
FIRSTGROUP PLC
FLYBE GROUP PLC
FORESIGHT 4 VCT PLC
FRENCH CONNECTION GR
FULLER'S SMITH & TURNER PLC
G4S PLC
GALLIFORD TRY PLC
GAMES WORKSHOP GROUP
GEM DIAMONDS
GENEL ENE
GENERAL ELECTRIC CO.
GKN PLC
GLAXOSMITHKLINE
GLENCORE PLC
GRAFTON GROUP PLC
GRAINGER PLC
GREENCORE GROUP PLC
GREENE KING PLC
H.R. OWEN PLC
HALFORDS GROUP PLC
HALMA PLC
HAMMERSON PLC

HARGREAVES LANSDOWN PLC
HARVEY NASH GRP PLC
HAYNES PUBLISHING
HAYS PLC
HELICAL BAR PLC
HENDERSON EUROTRUST
HENDERSON GROUP PLC
HERITAGE OIL PLC
HIKMA PHARMACEUTICAL
HILLSHIRE BRANDS CO
HILTON FOOD GROUP
HOCHSCHILD MINING
HOGG ROBINSON
HOMESERVE PLC
HONDA MOTOR CO., LTD
HONEYWELL INTERNATNL
HONGKONG LAND HLDGS
HOWDEN JOINERY
HUNTSWORTH PLC
ICAP PLC
IG GROUP HLDGS
IMAGINATION TECH GRP
IMPERIAL TOBACCO GRP
INCHCAPE PLC
INMARSAT PLC
INT'L BUSINESS MACHS
INTERMEDIATE CAPITAL
INTERN'L BIOTECHNOLO
INTERNATIONAL PERSONAL FINANCE PLC
INTERSERVE PLC
INTERTEK GROUP
INTNL FERRO METALS
INTU PROPERTIE
INVESTMENT COMPANY
ITE GROUP PLC
ITV PLC
J SAINSBURY PLC
JAMES FISHER & SONS
JERSEY ELECTRICITY
JKX OIL & GAS PLC

JOHN MENZIES PLC
JOHNSON MATTHEY PLC
JPMORGAN ELECT PLC
JPMORGAN EUROPEAN INVESTMENT TRUST PLC
JUPITER FUND MANAGEMENT
KAZ MINERALS PLC
KELLER GROUP PLC
KENTZ CORP
KEYSTONE INVESTMENT
KINGFISHER PLC
KOFAX LTD
KONAMI CORP
LADBROKES PLC
LAMPRELL PLC
LAND SECURITIES
LATCHWAYS PLC
LAVENDON GROUP PLC
LILLY (ELI) AND CO.
LIONTRUST ASSET MGT
LONDON & ASSOCIATED
LONDON STOCK EXCH
LONDONMETRIC PROPERTY PLC
LONMIN PLC
LOOKERS PLC
LOW & BONAR PLC
MACFARLANE GROUP PLC
MAJEDIE INVESTMENTS
MALLETT PLC
MAN GROUP PLC
MANAGEMENT CON
MANCH&LONDON INV TR
MANDARIN ORIENTAL
MARKS & SPENCER
MARSHALLS PLC
MAVEN INCOME
MCBRIDE PLC
MEARS
MEDUSA MINING LTD
MEGGITT PLC)
MICHAEL PAGE

MILLENNIUM
MITCHELLS & BUTLERS
MITIE GROUP PLC
MITSUBISHI CORP
MITSUBISHI ELECTRIC
MOLINS PLC
MONKS INVESTMENT
MORGAN ADVANCED
MORGAN SINDALL
MOSS BROS GROUP PLC
MOTHERCARE PLC
MS INTERNATIONAL PLC
MURRAY INCOME TRUST
N BROWN GROUP PLC
NARBOROUGH PLANT
NATIONAL EXPRESS GRP
NCC GROUP PLC
NEXT PLC
NMC HEALTHCARE LLC
NORCROS PLC
NORTH ATLANTIC SMALL
NORTHAMBER PLC
NORTHGATE PLC
NTT DOCOMO INC.
OCADO GROUP PLC
OCEAN WILSONS
OIL COMP. LUKOIL JSC
OPTOS PLC
OXFORD BIOMEDICA
OXFORD INSTRUMENTS
PACE PLC
PARAGON GROUP OF COMPANIES
PLC
PARITY GROUP PLC
PEARSON PLC
PENNON GROUP PLC
PERFORM GROUP LTD
PERSONAL ASSETS TR
PETRA DIAMONDS LTD
PETROFAC LIMITED
PFIZER INC
PLAYTECH PLC
PLAZA CENTERS N.V.
POLYMETAL INTER
POLYUS GOLD INTER
PORVAIR PLC
PPHE HOTEL
PREMIER FARNELL PLC
PREMIER FOODS PLC
PREMIER OIL PLC
PRIVATE EQUITY
PROMETHEAN WORLD
PROVIDENT FINANCIAL GROUP
PV CRYSTALOX SOLAR PLC
QINETIQ GROUP
QUARTO GROUP INC
QUINTAIN ESTATES
RANDGOLD RESOURCES
RATHBONE BROTHERS
RAVEN RUSSIA LTD
RECKITT BENCKISER GROUP PLC
RECORD PLC
REDROW PLC
REED ELSEVIER PLC
REGUS PLC
RENISHAW PLC
RENOLD PLC
RENTOKIL INITIAL PLC
RICARDO PLC
RIGHTMOVE PLC
RIO TINTO PLC
ROBERT WALTERS PLC
ROLLS-ROYCE
ROTORK PLC
ROYAL DUTCH SHELL
RPC GROUP PLC
RUSPETRO PLC
S & U PLC
SABMILLER PLC
SAFESTORE HOLDINGS PLC
SALAMANDER ENERGY PLC

SAVILLS PLC	TATE & LYLE PLC	WALKER CRIPS GROUP
SCHRODERS PLC	TAYLOR WIMPEY PLC	WEIR GROUP PLC
SDL PLC	TELECITY GROUP PLC	WH SMITH PLC
SECURITIES TRUST	TELECOM PLUS PLC	WHITBREAD PLC
SEGRO PLC	TEMPLETON EMERGING	WILLIAM HILL PLC
SENECA GLOBAL	TESCO PLC	WINCANTON PLC
SENIOR PLC	TEX HOLDINGS PLC	WM. MORRISON SUPERMT
SEPURA PLC	THE RANK GROUP PLC	WOLSELEY PLC
SERCO GROUP PLC	THE SAGE GROUP PLC	WORKSPACE GROUP PLC
SEVERN TRENT PLC	THOMAS COOK GROUP PLC	WS ATKINS PLC
SHANKS GROUP PLC	THORNTONS PLC	XAAR PLC
SHIRE PLC	TONGAAT HULETT LTD	XCHANGING PLC
SIG PLC	TOPPS TILES PLC	XP POWER LTD
SIGNET JEWELERS LTD	TORAY INDUSTRIES	ZHEJIANG EXPRESSWAY
SKY PLC	TOSHIBA CORPORATION	ZOTEFOAMS PLC
SMITH & NEPHEW PLC	TOWN CENTRE SECS	
SMITHS INDUSTRIES PLC	TOYOTA MOTOR CORP	
SOCO INT'L PLC	TRAVIS PERKINS PLC	
SONY CORP	TRIBAL GROUP PLC	
SOURCE BIOSCIENCE	TRIFAST PLC	
SPECTRIS PLC	TRINITY MIRROR PLC	
SPEEDY HIRE PLC	TT ELECTRONICS PLC	
SPIRAX-SARCO ENGINEERING PLC	TUI TRAVEL PLC	
SPIRENT COMM	TULLOW OIL PLC	
SPIRIT PUB CO	TYMAN PLC	
SPORTECH PLC	UBM PLC	
SPORTS DIRECT INTERNATIONAL PLC	UDG HEALTHCARE	
ST IVES PLC	UK MAIL GROUP	
ST. MODWEN PROPS.	ULTRA ELECTRONICS	
STAGECOACH GROUP PLC	UNILEVER PLC	
STANDARD LIFE	UNISYS CORPORATION	
STHREE PLC	UNITE GROUP PLC	
STOBART GROUP LTD	UNITED UTILITIES PLC	
STV GROUP PLC	VECTURA GROUP PLC	
SVG CAPITAL PLC	VERIZON COMMUNICATNS	
SYNERGY HEALTH PLC	VESUVIUS PLC	
SYNTHOMER PLC	VICTREX PLC	
T CLARKE PLC	VITEC GROUP PLC	
TALKTALK TELECOM GROUP PLC	VOLEX PLC	
TARSUS GROUP PLC	VP PLC	

Appendix 2

Positive Words

*Obtained from Henry (2008) word list

Above*	Commit	Exceeds*	Highest*
Accelerate	Committed	Excellent*	Highly
Accelerating	Compelling	Exciting	Impress
Accomplish*	Confidence	Exclusive	Impressed
Accomplished*	Confident	Expand	Impressive
Accomplishes*	Contribute	Expand*	Improve*
Accomplishing*	Contributed	Expanded	Improved*
Accomplishment*	Contribution	Expanded*	Improvement*
Accomplishments*	Deep	Expanding*	Improvements*
Achieve*	Definite*	Expands*	Improves*
Achieved*	Delighted	Expansion*	Improving*
Achievement*	Deliver*	Extend	Increase*
Achievements*	Delivered*	Extended	Increased*
Achieves*	Delivering*	Extremely	Increases*
Achieving*	Delivers*	Far	Increasing*
Add	Desire	Favor	Incredible
Added	Desirable	Favorably	Invaluable
Advanced	Effectively	Favour	Invigorate
Ahead	Efficient	Favourably	Invigorated
Appeal	Efficiently	Firm	Larger*
Appealing	Elevate	Firmer	Largest*
Attracted	Elevated	First	Leader*
Attractive	Encouraged*	Flexibility	Leading*
Attractively	Encouraging*	Fortunately	Maximise
Augmenting	Encouragingly	Front	Maximising
Award	Engage	Gain	Maximize
Awarded	Enhance	Good*	Maximizing
Beat*	Enhanced	Greater*	Maximum
Beats*	Enhancement	Greatest*	More*
Beating*	Enjoy*	Greatly	Most*
Beneficial	Enjoyed*	Grew*	Opportunities*
Benefit	Enjoying*	Grow*	Opportunity*
Benefited	Enjoys*	Growing*	Optimal
Best*	Enthusiasm	Grown*	Optimally
Better*	Enthusiastic	Grows*	Optimise
Boost	Essential	Growth*	Optimising
Boosted	Ever	Healthy	Optimism
Broaden	Exceed*	Heightened	Optimistic
Certain*	Exceeded*	High*	Optimize
Certainty*	Exceeding*	Higher*	Optimizing

Optimum	Satisfying	Very
Outperform	Sharp	Wealth
Outperformance	Sharpening	Welcome
Outperformed	Sharply	Welcoming
Outstanding	Solid*	Well
Paramount	Stimulate	Well-placed
Passionate	Stimulated	Well-run
Pleased*	Stimulates	Win
Pleasing	Stimulus	Won
Positive*	Strength*	
Positively	Strengths*	
Positives*	Strengthen*	
Prestigious	Strengthened*	
Pride	Strengthening*	
Privilege	Strengthens*	
Profitable	Strong*	
Progress*	Stronger*	
Progressing*	Strongest*	
Progression	Substantial	
Promising	Substantially*	
Proud	Succeeded*	
Proudly	Succeed*	
Quickly	Succeeding*	
Raise	Succeeds*	
Raised	Successful*	
Rapid	Successfully	
Rapidly	Success*	
Record*	Successes*	

Negative words

Apprehensive	Depressed*	Eroding	Issues
Ascend	Depressive	Erosion	Lack
Ascendance	Deteriorate*	Error	Lackluster
Ascendancy	Deteriorated*	Fail*	Laggard
Austerity	Deteriorates*	Failing*	Least*
Bad	Deteriorating*	Fails*	Less*
Badly	Difficult*	Failure*	Limit
Barriers	Difficulties*	Fall*	Limited
Below*	Difficulty*	Fallen*	Limits
Bias	Dilutive	Falling*	Lose
Biased	Diminish	Falls*	Loss
Biases	Diminished	False	Lost
Cautious	Diminishes	Fear	Low*
Challenge*	Diminishing	Fearing	Lower*
Challenged*	Disappoint*	Fears	Lowered*
Challenges*	Disappointed*	Fell*	Lowest*
Challenging*	Disappointingly	Flat	Miss incidents
Cheap	Disappointment*	Frustrate	Negate
Complaint	Disappoints*	Frustrating	Negated
Complaints	Disaster	Frustration	Negative*
Concern	Disasters	Grapple	Negatives*
Concerned	Discouragement	Grappled	Negligible
Concerns	Discouragements	Hamper	Obstacle*
Counter	Disliked	Hampered	Obstacles*
Criticism	Disposal	Harm	Outflow
Decline*	Disruption	Harmed	Outflows
Declined*	Disturbance	Harms	Painful
Decliner*	Doubt	Harsh	Penalties*
Declines*	Doubts	Headwind	Penalty*
Declining*	Down*	Heavily	Pessimistic
Decrease*	Downgrade	Hurdle*	Poor
Decreased*	Downgraded	Hurdles*	Poorly
Decreases*	Downgrades	Hurt	Problem
Decreasing*	Downside	Hurted	Problems
Deficit	Downturn*	Hurts	Recession
Delay	Drop*	Impossible	Reduce
Delayed	Dropped*	Inefficiencies	Reduced
Delays	Dropping*	Inefficiency	Reducing
Dent	Drops*	Inefficient	Reduction
Dented	Erode	Issue	Regret
Dents	Eroded	Issue	Regret

Regrets	Suffered	Worsen*
Resilient	Suffers	Worsening*
Risk*	Tapered	Worsens*
Risks*	Tapering	Worst*
Risky*	Terrible	Worthless
Rough	Terribly	Wreck
Sad	Threat*	
Sadly	Threatened	
Sadness	Threatens	
Scandal	Threats*	
Scrambling	Tough	
Setback	Tougher	
Setbacks	Unable	
Severe	Unfortunately	
Shortage	Unacceptable	
Shrink*	Uncertain*	
Shrinking*	Uncertainty*	
Shrinks*	Uncomfortable	
Shrunk*	Under*	
Slow	Underestimated	
Slowdown	Underestimation	
Slowing	Underperform	
Sluggish	Underperformance	
Slump*	Underperformed	
Slumped*	Undervalued	
Slumping*	Undervaluation	
Slumps*	Unfavorable*	
Smaller*	Unfavourable	
Smallest*	Unprofitable	
Soft	Unsettled*	
Softening	Volatile	
Softens	Volatility	
Softer	Weak*	
Sombre	Weaken*	
Squeezed	Weakened*	
Starve	Weakening*	
Starved	Weakens*	
Stress	Weaker*	
Struggle	Weakness*	
Struggled	Weaknesses*	
Subdued	Worries	
Suboptimal	Worry	
Suffer	Worse*	

Appendix 3

Figure 3.5.2.1 Scatterplot Matrix, incl. non-winsorized variables

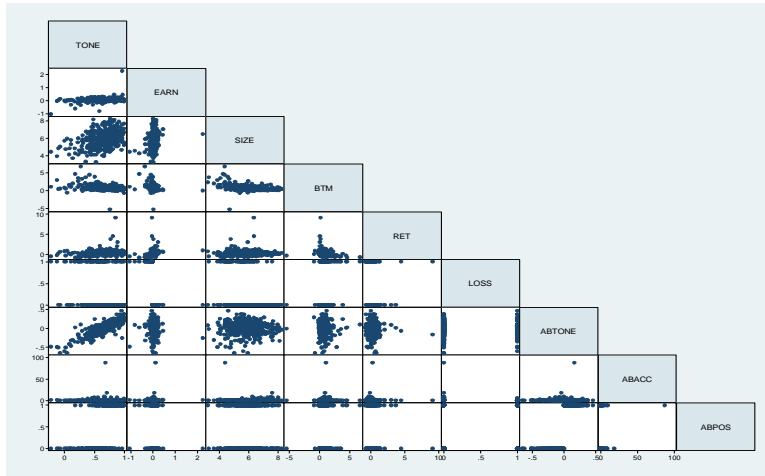


Figure 3.5.2.2 Scatterplot Matrix, incl. winsorized variables (*EARN*, *BTM*, *RET*)

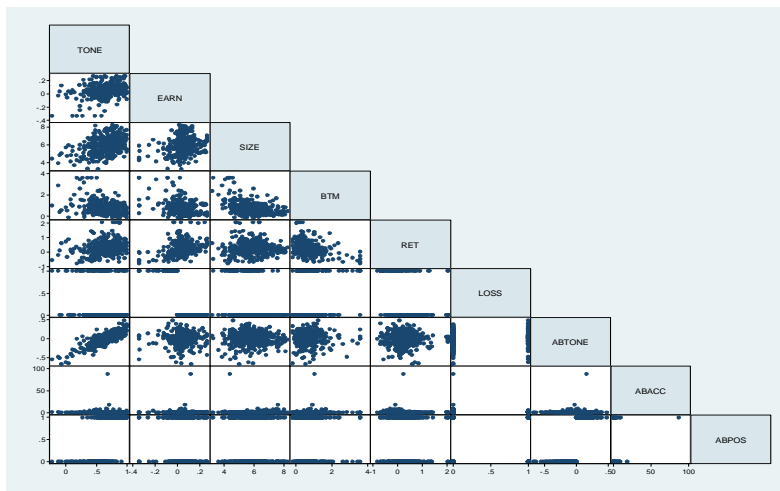


Table 4.1 Descriptive Statistics incl. non-winsorized data

Number of observations: 415

Variable	Mean	Median	Std.Dev	P1	P99	Skewness	Kurtosis
TONE	0.6560	0.6761	0.2056	-0.2121	1	-0.9717	4.5327
EARN	0.0502	0.0473	0.1583	-0.3397	0.2686	5.1611	101.0054
SIZE	5.9124	5.9307	0.9034	3.2646	8.2393	0.0104	3.0090
BTM	0.6797	0.5176	0.7577	-0.1545	3.5975	1.4098	25.9760
RET	0.2984	0.2411	0.6600	-0.6777	2.0455	6.9024	83.4395
LOSS	0.1590	0	0.3662	0	1	0.1341	4.4770
ABTONE	-1.06e-10	0.0109	0.1730	-0.5131	0.4799	-0.6743	4.2268
ABACC	0.9353	0.4047	4.4958	0.0002	87.5967	17.5240	334.9104
ABPOS	0.5277	1	0.4998	0	1	-0.1110	1.0123

Table 4.2 Pearson's Correlation Analysis incl. non-winsorized data

Number of observations: 415

	TONE	EARN	SIZE	BTM	RET	LOSS	ABTONE	ABACC	ABPOS
TONE	1								
EARN	0.2789* (0.0000)	1							
SIZE	0.3787* (0.0000)	0.1912* (0.0000)	1						
BTM	-0.3384* (0.0000)	0.2753* (0.0000)	-0.3660* (0.0000)	1					
RET	0.2019* (0.0000)	0.1661* (0.0007)	0.0188 (0.7029)	-0.2170* (0.0000)	1				
LOSS	-0.2535* (0.0000)	-0.4493* (0.0000)	-0.2710* (0.0000)	-0.2937* (0.0000)	-0.0698 (0.1560)	1			
ABTONE	0.8414* (0.0000)	0.0464 (0.3458)	0.0000 (1.0000)	-0.0122 (0.8038)	0.0002 (0.9964)	-0.0291 (0.5540)	1		
ABACC	0.0114 (0.8165)	0.0301 (0.5405)	-0.0193 (0.6945)	0.0407 (0.4082)	-0.0262 (0.5943)	-0.0415 (0.3991)	0.0400 (0.4158)	1	
ABPOS	0.6242* (0.0000)	0.0135 (0.7839)	-0.0542 (0.2708)	0.0096 (0.8452)	0.0498 (0.9318)	0.0155 (0.7536)	0.7694* (0.0000)	0.0277 (0.5734)	1

* Indicate significance at the 5% level

$$H_1: TONE = \beta_0 + \beta_1 EARN + \beta_2 SIZE + \beta_3 BTM + \beta_4 RET + \varepsilon \quad (1)$$

$$H_2: P(ABPOS = 1) = \beta_0 + \beta_1 EARN + \beta_2 LOSS + \beta_3 SIZE + \beta_4 BTM + \beta_5 RET + \beta_6 EARN_LOSS + \varepsilon \quad (2)$$

$$H_3: ABTONE = \beta_0 + \beta_1 ABACC + \beta_2 EARN + \beta_3 LOSS + \beta_4 SIZE + \beta_5 BTM + \beta_5 RET + \beta_6 EARN_LOSS + \varepsilon \quad (3)$$

Table 4.3 Multiple Regression Analysis incl. non-winsorized data

<i>VARIABLES</i>	<i>TONE (1)</i>	<i>ABPOS (2)</i>	<i>ABTONE (3)</i>
<i>EARN</i>	0.1939* (0.032)	0.3120 (0.720)	-0.1071* (0.002)
<i>SIZE</i>	0.0655** (0.000)	-0.1031 (0.413)	-0.0039 (0.708)
<i>BTM</i>	-0.0368** (0.005)	0.0038 (0.981)	0.0033 (0.805)
<i>RET</i>	0.0311* (0.013)	0.1717 (0.346)	-0.0005 (0.963)
<i>LOSS</i>		0.0881 (0.794)	-0.0283 (0.424)
<i>EARN_LOSS</i>		-0.0843 (0.959)	0.2770 (0.130)
<i>ABACC</i>			0.0014* (0.031)
<i>Observations</i>	415	415	415
<i>R-squared</i>	0.2900	0.0102	0.0169

* Indicate significance at the 5% level

** Indicate significance at the 1% level

Robust *p*-statistics in parentheses

Industry effects are included in all regressions but not reported

Appendix 4

Datastream Code	Description
WC04860	Cash Flow from Operations
WC02999	Total Assets
WC01001	Net Sales
WC02051	Receivables
WC02501	Property, Plant & Equipment
WC08001	Market Capitalization
WC03501	Book value of Equity
WC05001	Market Price Year End
WC01751	Net Income
DPS	Dividends Per Share
FTSL2C	Two-digit ICB Code
ICBIC	One-digit ICB Code