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The Impact of Audit characteristics, Audit Fees on Classification Shifting: Evidence from Germany

Abstract

Purpose - This paper examines the relationship between Audit Characteristics (ACs) and Audit fees on Classification Shifting (CS) among German listed non-financial firms.

Design/methodology/approach - Using a sample of 130 German listed (DAX, MDAX, and SDAX index) firms from 2010 until 2019, we investigated the impact of audit committee size, audit committee meetings, audit committee financial expertise and audit fees on Classification Shifting.

Findings - we found the evidence of CS, meaning that managers misclassify recurring expenses in the income statement into non-recurring expenses to inflate core earnings. We also found that the audit fee ratio, audit committee financial expertise, and frequency of audit meetings are negatively associated with CS among German-listed firms. However, the audit committee size does not influence CS.

Implications - This study will help the board improve its internal auditing practices and provide essential information to investors to assess how ACs affect the quality of financial reporting.

Originality/value - This study focused on a bank-oriented economy, i.e. Germany, with lower investor protection and low transparency. This paper documents new evidence on how ACs and audit fees impact CS among German firms since most of the previous studies on CS mainly focused on market-oriented economies such as the UK and US,

Keywords Earning Management, Classification Shifting, Audit Characteristics, Audit Fees, Corporate Governance

Paper Type Research Paper

Introduction

Financial earnings are of great interest to stakeholders of the company as it empowers them to differentiate among low and high-performing companies and make effective financial decisions. However, previous studies pointed out that managers have an opportunity to use their discretion and manipulate reported earnings to gain personal benefits for themselves or the company (Leuz et al., 2003, Prior et al., 2008, Komal et al., 2021). Prior earnings management literature mainly used accrual and real earnings management (Peasnell et al., 2000, Roychowdhury, 2006, Zang, 2012, Assenso-Okofo et al., 2020). Classification shifting (CS) is a recently established method of earnings manipulation. McVay (2006) defined CS as a strategy whereby managers shift core expenses like general, selling, and administrative expenditures within the income statement to boost core earnings and have no impact on bottom line income. International Financial Reporting Standards (IFRS) provide firms with an opportunity to disclose earnings before exceptional or non-recurring items. Zalata and Roberts (2016) pointed out that such classification of earnings enhances comparability of time-series measures since non-recurring items have fewer implications for future profits. However, Fan et al. (2010) indicated that management employs CS to accomplish specific earnings benchmarks, precisely when they are restrained from using discretionary accruals to manipulate earnings.

Previous studies highlighted that market-oriented economies like the UK and the US have a higher transparency and investor protection level (Antoniou et al., 2008, Ezeani et al., 2021, Ezeani et al., 2022). They also argued that countries like Germany, Japan, and France are bank-oriented economies, where firms operate in an environment of lower transparency and lower investor protection. Similarly, Leuz et al. (2003) found that companies manipulate their earnings more in code-law countries like Germany than in common-law countries since the investor protection is relatively lower. Furthermore, Leuz and Verrecchia (2000) argue that

German reporting standards allow management to manage earnings using "silent reserves", encouraging firms to apply tax avoidance strategies. They also pointed out that their disclosures lack details and do not often meet analysts' information needs. However, these studies mainly used accrual earnings management (Van Tendeloo and Vanstraelen, 2005, Kouki, 2018). Therefore, it would be interesting to see whether German firms engage in CS.

A strong audit committee is essential as they establish a form of monitoring, curb managers' opportunistic behaviour, and reduce information asymmetry (Jung et al., 2016, Hammami and Zadeh, 2019). Prior studies reported that audit characteristics (ACs) restrain managers from engaging in accrual earnings management and real earnings management (Prawitt et al., 2009, Alzoubi, 2018, Salem et al., 2021). Unlike accrual earnings management, Athanasakou et al. (2009) argued that CS is more of a disclosure issue as it has no impact on the net income, making it difficult to detect. Zalata and Roberts (2016) found that ACs mitigate classification shifting in the UK. However, Germany has a low transparency level and weaker investor protection rights (Ezeani et al., 2021), which offers an interesting setting to examine the impact of ACs on CS.

We used 820 firm-year observations from 2010 to 2019 to examine whether German companies engage in CS and found a positive association between unexpected core earnings and non-recurring items, confirming that German companies engage in CS. Following previous studies, we examined the effect of ACs and audit fees on CS using audit committee size, audit committee financial experts, and frequency of audit committee meetings as proxies for ACs (Vafeas, 2005, Zalata and Roberts, 2016). We found that CS is negatively related to the audit fee ratio, which aligns with the idea that a high auditor fee reflects a better audit quality. In line with Zalata and Roberts (2016), we found a negative relationship between audit meetings and CS frequency, implying that active audit committees have sufficient time to cover sophisticated issues like CS. Similarly, we show that audit committee financial expertise is inversely related

to CS. We found no relation between audit committee size and CS, suggesting that the audit committee's size does not reflect the audit quality.

We contribute to the extant literature in several ways. Most of the previous studies on CS are conducted in UK and USA (McVay, 2006, Athanasakou et al., 2009, Zalata and Roberts, 2017, Zalata et al., 2018b). Hence, there is no prior evidence on classification shifting (CS) in a bank-oriented economy like Germany. Due to lower investor protection and transparency, countries like Germany are different from market-oriented countries such as the UK (Antoniou et al., 2008, Ezeani et al., 2021). Therefore, we provide evidence of CS among German firms. Also, German firms follow a stakeholder corporate governance structure that deviates from Anglo-Saxon (market-based) economies (Kim et al., 2007, Ezeani et al., 2022). Previous studies on CS ignored audit the impact of auditor's effort on CS. This paper provides evidence that ACs and audit fees mitigate CS practices among German firms.

Our paper consists of the following sections: Section 2 reviews the prior literature and the study's hypothesis. Section 3 explains the process of data collection and sample selection. Section 4 elaborates on the methodology used to measure CS and ACs. Section 5 describes the descriptive statistics and regression results. Finally, the conclusion is presented in section 6.

2. Literature Review and Hypothesis Development

2.1 Theoretical framework

A strong theoretical framework is introduced by agency theory to analyse managers' behaviour in different sectors and solve the conflict of interest between managers and shareholders (Jensen and Meckling, 1976, Jensen, 1986). The notion of agency theory is that information asymmetry among management and shareholders allows managers to engage in earnings management activities (Healy and Wahlen, 1999). Managers manipulate earnings to mislead users of financial information regarding the company's performance or influence the

contractual outcomes dependent on the reported earnings (Salem et al., 2020). Hence, Albersmann and Hohenfels (2017) suggested a need to implement a robust internal monitoring mechanism that prevents the management from opportunistic opportunities like earnings management and reduces agency costs. Hence, effective ACs are important for firms to mitigate the issue of information asymmetry.

To alleviate managers' opportunistic behaviour, Alkdai and Hanefah (2012) postulated that ACs perform as a monitoring mechanism to protect shareholders' rights and ensure the validity and reliability of financial statements. Likewise, previous studies suggested that audit committee characteristics and board of directors may mitigate agency costs and reduce managers' involvement in earnings management methods like CS (Al-Absy et al., 2019, Chiang et al., 2020). Hence, this study investigates the role of ACs and audit fees in mitigating earnings management through CS among German firms. Xie et al. (2003) indicated that the effectiveness of ACs could play a major part in mitigating earnings manipulation, which in turn reduces agency costs. Hence, this study aims to contribute to awareness of how ACs' role effectively reduces agency costs in a developed economy.

In the context of Germany, the supervisory board is the main internal controlling mechanism (Ezeani et al., 2022, Ezeani et al., 2021). The audit committee's role is crucial given the great responsibility of the supervisory board to monitor the firm's performance, the possibility of coordination failures, and difficulties in detecting and reducing earnings manipulations(Albersmann and Hohenfels, 2017). Therefore, the existence of an audit committee assists the supervisory board to monitor and assessing the firm financial reporting quality, which in turn decreases agency costs.

2.2 Classification Shifting

McVay (2006) introduced CS as a method managers use to manipulate their earnings, whereby firms move their recurring items within the income statement as non-recurring items. The objective of CS is to inflate the firm's core earnings without impacting bottom-line earnings. Managers engage in CS since the transitory and infrequent nature of non-recurring items make it difficult for investors to detect CS (Bradshaw and Sloan, 2002). Furthermore, CS is less costly for managers than accrual and real earnings management as it doesn't involve any loss from forgone opportunity (Abernathy et al., 2014). Consequently, managers in Germany might prefer CS when managing earnings.

McVay (2006) found evidence that managers shift core expenses to special items using a sample of US companies. Similarly, Fan et al. (2010) reported that companies inflate their core earnings in the fourth quarter than in interim quarters. Abernathy et al. (2014) documented that UK managers use CS as a substitute when managers cannot engage in accrual and real earnings management. Similarly, Zalata and Roberts (2017) examined whether managerial discretion underlies firms' CS practice and found that managers tend to use their discretion in disclosing non-recurring items to report an increase in their core earnings. Furthermore, their study found that credit rating firms do not penalise firms for engaging in CS. Malikov et al. (2018) examined whether firms misclassified revenues from non-operating activities as operating revenue and found evidence of CS. However, these studies are conducted in the UK and USA, and no study to date has focused on a bank-based economy like Germany with lower transparency and weaker investor protection rights. Ball et al. (2000) and Ezeani et al. (2021) argued that capital markets are not active in code-law countries like Germany. They have weaker investor protection rights and low litigation rates (La Porta et al., 2002) and have less demand for public disclosure. Van Tendeloo and Vanstraelen (2005) pointed out that earnings management

improves firms' liquidity that outweighs litigation costs, especially in countries with lower investor protection rights like Germany.

The implementation of IFRS (2005) in Europe raised the expectations that this new accounting regulation will enhance corporate transparency and improve the reported earnings quality (EC Regulation No. 1606/2002). However, the German accounting system's low level of transparency may make it easier for firms to falsify the quality of their reported earnings through IFRS. Salem et al. (2020) argue that lower disclosure will lead to earnings management. Zalata and Roberts (2017) pointed out that the IAS 1 provides firms with an opportunity to shift items within the income statement, which makes it interesting to examine whether German companies used CS to manipulate their earnings under the IFRS system. Thus, we propose the following hypothesis:

H1: Managers of German firms use CS to inflate their core earnings.

2.2.1 Audit Characteristics and Classification Shifting

The ACs effectiveness has been a subject of interest as prior studies found that strong audit committees mitigate earnings management and improve the quality of the auditing process (Xie et al., 2003, Van Tendeloo and Vanstraelen, 2008, Hammami and Zadeh, 2019). A competent audit committee must protect the interest of shareholders and provide high-quality reported earnings. One of the key measures used to represent ACs is audit committee size. Zalata and Roberts (2016) argued that chief executive officers (CEOs) might not be able to influence the large audit committee, since they tend to be more independent. Previous studies have examined the impact of audit committee size on earnings management (Yang and Krishnan, 2005, Zalata and Roberts, 2016). Studies show that the status and powers of a large audit committee are linked to its size (Kalbers and Fogarty, 1993). Also, Zalata and Roberts (2016) argued that chief executive officers (CEOs) are unlikely to influence audit committees with many

members. Similarly, Yang and Krishnan (2005) reported a negative relation between audit committee size and earnings management, confirming that large committees mitigate earnings manipulation. Although these studies suggest that the size of the audit committee will influence the quality of financial reports, Xie et al. (2003) and Bedard and Johnstone (2004) found that audit committee size has no impact on accrual earnings management. CS is less likely to be observed than accrual and real earnings management as it doesn't involve any loss from forgone opportunity (Abernathy et al., 2014). Given the reported communication and coordination issues among large-sized boards (Lipton and Lorsch, 1992, John and Senbet, 1998), we argue that such an audit committee with many members is unlikely to detect classification shifting. In Germany, audit committee members are selected from supervisory board members representing different stakeholder groups. Since these stakeholders have varying interests and needs, we expect a positive relationship between audit committee size and classification shifting. We, therefore, formulate the following hypothesis:

H2: Audit committee size is positively related to classification shifting

Prior studies reported that audit committees who meet regularly reduce the extent of earnings manipulation (Xie et al., 2003, Hossain et al., 2011, Zalata and Roberts, 2016). These may be due to the impact of meeting frequency in reducing restatement probability. Also, DeZoort et al. (2002) argue that the meeting frequency of the audit committee is a sign of their diligence and enables them to discharge their monitoring responsibilities effectively. Yang and Krishnan (2005) and Raimo et al. (2021) pointed out that it could be difficult for an inactive audit committee to detect unethical disclosure practices and accounting irregularities like CS since they spent limited time together. Kang et al. (2011) documented that the audit committees that meet frequently ensure a higher quality of the disclosed information. Hence, it is noticed that a diligent audit committee improves the financial reporting quality. Therefore, we expect that active audit committees have sufficient time to detect CS and propose the following hypothesis:

H3: Audit committee meetings are negatively associated with CS.

Extant literature has shown the relevance of audit committee financial expertise in mitigating earnings management (Chen and Komal, 2018, Komal et al., 2021). Consistent with the Blue Ribbon Committee, it is expected that the financial expertise of audit committee members will influence its effectiveness. In line with SOX (section 407), firms are required to report whether any audit committee member has relevant financial expertise. The emphasis on financial expertise is related to its role in dealing with complex issues in financial reports (Kalbers and Fogarty, 1993), minimising the possibility of misstatements (Abbott et al., 2004), and evaluating auditors' judgment (DeZoort and Salterio, 2001). Consistent with the Cromme Code (2002), German firms are required to have sufficient expertise among their audit committee members to ensure the quality of financial reports (Cromme, 2002). We argue that audit committee financial experts in the German firms are likely to detect classification shifting and, as a result, maintain the quality of financial reports. We, therefore, develop the following hypothesis

H4: Audit committee financial expertise is negatively related to CS

2.2.2 Audit Fees and Classification Shifting

Prior literature investigated the association between audit fees and the quality of financial reporting (Li and Lin, 2005, Alhadab, 2018, Gandía and Huguet, 2021). Hence, Frankel et al. (2002) found that audit fee is negatively associated with accrual earnings management and improve the overall audit quality. Similarly, Stanley and DeZoort (2007) and Alzoubi (2018) pointed out that larger audit fees reduce the restatement probability. They argued that the auditing market is highly-regulated compared to the non-auditing market because the requirement of auditing for listed firms is mandatory, and audit fees are a probable factor to reveal the audit efforts, which sequentially improves the quality of financial reporting. Zhang

et al. (2007) and Owusu et al. (2020) highlighted that auditors face various risks such as litigation and reputation impairment that compels them to work effectively to provide a good audit quality. However, these studies mainly used accrual earnings management and ignored CS. Audit fees might impact the quality of the auditing process in two ways. For instance, the fees paid to firms' auditors may affect the firms' audit quality and reflect the level of time and effort involved in the audit process. Also, low audit fees may lead to pressure and the need for auditors to find shortcuts, thereby compromising the audit quality (Jung et al., 2016, Hammami and Zadeh, 2019). We expect that a high auditor fee reflects a better quality of the audit, so it must mitigate practices like CS. Hence, we propose the following hypothesis:

H5: There is a negative association between audit fees and CS.

3.0 Methodology

3.1 Data and Sample

The sample chosen for this research is DAX, MDAX, and SDAX index. These three indexes consist of the biggest 130 companies operating in Germany (Gamerschlag et al., 2011). This study covers the period from 2010 to 2019, and we used DataStream to collect data for 130 German firms. The German context offers a unique contribution since the majority of the CS studies are conducted in market-based economies such as the US and UK (McVay, 2006, Zalata and Roberts, 2017, Zalata and Abdelfattah, 2021), where there is higher level of investor protection and transparency compared to Germany (Ezeani et al., 2021). Following previous studies, financial and utility firms are eliminated from the sample due to their unique financial reporting regulations (Klein, 2002, McVay, 2006, Zalata and Abdelfattah, 2021). Also, firms with less than € 0.5 million sales are eliminated to avoid outliers since sales are used as a deflator (Abernathy et al., 2014, Zalata and Roberts, 2017). Due to missing data and companies established after 2010, our final sample consists of 820 firm-year observations.

3.2 Classification Shifting

We follow McVay (2006) and Zalata and Roberts (2016) to examine whether managers of German companies use CS to boost their core earnings. We expect that managers move recurring expenses like the cost of goods sold within the income statement as non-recurring expenses to improve their core earnings (Fan et al., 2010, Zalata and Roberts, 2017, Zalata et al., 2018a). Zalata and Roberts (2016) pointed out that the core earnings of a company are expected to be overstated when they manipulate their earnings using CS. The following model is used to estimate normal core earnings:

$$C\_E_{i,n} = \alpha_0 + \alpha_1 C\_E_{i,n-1} + \alpha_2 ASSET\_TO_{i,n} + \alpha_3 ACCRUAL_{i,n-1} + \alpha_4 ACCRUAL_{i,n} +$$

$$\alpha_5 \Delta SALE_{i,n} + \alpha_6 NE\Delta SALE_{i,n} + \mu_{i.n} \tag{1}$$

The definition of the variables employed in model (1) are as follows:

Variable	Definition
C_E	C_E represents core earnings measured as core earnings/sales, where core earnings are calculated as (sales less Cost of goods sold less selling, general and administrative expenditures)/sales (McVay, 2006, Fan and Liu, 2017).
ASSET_TO	ASSET_TO represents asset turnover and estimated as a sales/average net operating asset. Net operating assets is calculated as operating assets less operating liabilities. Operating assets is estimated as total assets less cash and cash equivalent. Operating liabilities is measured as (total assets - total debt - book value of common equity - preferred equity - minority Interests (McVay, 2006, Zalata and Roberts, 2017)
ACCRUAL	ACCRUAL stands for the operating accruals and is measured as the earnings before extraordinary items less Cash flow from operating activities, scaled by sales (McVay, 2006, Zalata et al., 2018a).
ΔSALE	ΔSALE stands for the % change in sales and estimated as $SALE_t$ less $SALE_{t-1}$, scaled by $SALE_{t-1}$ (Fan and Liu, 2017, Zalata and Roberts, 2016).
NEΔSALE	NEΔSALE is ΔSALES if the value is less than zero, otherwise zero (Zalata and Roberts, 2017, Zalata et al., 2018a).

Our paper used sales as a scaler in model (1), as McVay (2006) pointed out that the total assets of a company might be misstated systematically along with non-recurring items (NR_I). It

includes lag of core earnings ($C\_E_{i,t-1}$) since core earnings are persistent in nature. Asset turnover (ASSET_TO) controls the inverse association among ASSET_TO and profit margin. Zalata and Roberts (2016) highlighted that ASSET_TO is crucial for companies with massive income-increasing non-recurring items as they tend to modify their operating strategies. Lagged accruals ($ACCRUAL_{i,t-1}$) captures the information related to the last period accruals for current period earnings as Zalata and Roberts (2017) mentioned that future performance is linked to past accruals. The current period accruals ($ACCRUAL_t$) curbs extreme performance, which is arising from accruals management. The change in sales ($\Delta SALE_t$) controls for the influence of sales growth since it reduces fixed cost. Finally, negative sales ($NE\Delta SALE_t$) allows for different slopes regarding the sales increase and decrease (Anderson et al., 2003).

Model (1) is estimated cross-sectionally for each firm-year to obtain the coefficients. We employed the estimated coefficients in the model (1) when calculating core earnings (E_CE). In line with Zalata and Roberts (2017), the following model is used to investigate whether German firms engage in CS:

$$UE\_CE = \alpha_0 + \alpha_1 NR\_I + \alpha_2 FS_t + \alpha_3 CFO_t + \alpha_4 LEV_t + \alpha_5 ROA_t + \alpha_6 BMV_t \qquad (2)$$

The unexpected core earnings (UE_CE) are calculated as reported C_E less E_CE, scaled by sales. Following prior studies, we calculated the non-recurring item (NR_I) as C_E less bottom-line earnings, scaled by sales (Zalata and Roberts, 2017). Following previous studies, we include the following control variables, which may have an impact on CS: firm size (FS_t), operating cash flow (CFO_t), leverage (LEV_t), return on assets (ROA_t) and book-to-market value (BMV_t) (Barua et al., 2010, Zalata and Roberts, 2017). When firms engage in CS, the UE_CE rises with an increase in NR_I, so we expect they are positively associated with each other. The definitions of the control variables used in the model (2) are given in appendix 1.

3.3 Dependent variables

We used various audit variables to represent the ACs. The audit committee size (AC_SIZE) is also included in our study, as prior research found that large audit committees reduce earnings manipulation (Yang and Krishnan, 2005, Zalata and Roberts, 2016). Accordingly, total members on the audit committee are used to measure AC_SIZE. We also examined whether the presence of audit committee financial experts (AC_FIN) influences classification shifting. Finally, we included the frequency of audit committee meetings (AC_MEET) as a proxy of ACs as we expect that active audit committees have sufficient time to detect CS (Hossain et al., 2011, Zalata and Roberts, 2016). Following Zhang et al. (2007), we measure the audit fee ratio as a ratio of audit fee to the total fee (AF_RATIO). Our paper used the following model to examine the impact of AQ on CS

$$UE\_CE = \alpha_0 + \alpha_1 NR\_I_t + \alpha_2 AC\_SIZE_t + \alpha_3 AC\_MEET_t + \alpha_4 AC\_FIN +_t \alpha_5 AF\_RATIO_t + \alpha_6 NR\_IxAC\_SIZE_t + \alpha_7 NR\_IxAC\_MEET_t + \alpha_8 NR\_IxAC\_FIN_t + \alpha_9 NR\_IxAF\_RATIO_t + \alpha_{10}FS_t + \alpha_{11}CFO + \alpha_{12}LEV_t + \alpha_{13}ROA_t + \alpha_{14}BMV_t \qquad (3)$$

UE_CE is the unexpected core earnings; NR_I represent the non-recurring items; AC_SIZE stands for the audit committee size, AC_MEET is the frequency of audit meetings, AC_FIN represents audit committee financial expertise, AF_RATIO is the audit fee ratio. Following previous studies, we use the interaction term between NR_I and ACs variables to examine whether they are related to UE_CE (Behn et al., 2013, Zalata and Roberts, 2017). The interaction terms will enable us to see whether AQ impacts the association between UE_CE and NR_I. Firm size (FS_t), operating cash flows (CFO_t), leverage (LEV_t), return on assets (ROA_t) and book-to-market value (BMV_t) are used as control variables (appendix 1).

4. Empirical Results:

4.1 Descriptive Statistics:

The descriptive statistics for the main variables used in the analysis are reported in Table I. The mean and median of UE_CE is 0.00% and in line with the result reported by previous studies (McVay, 2006, Fan et al., 2010, Zalata and Roberts, 2017). This result is expected since UE_CE is the residual from the expectation model. The mean of NR_I is 12%, which is substantially higher than the ones reported in previous studies. Zalata and Roberts (2016) reported 6.1%, and Zalata and Roberts (2017) reported a 6% mean value of NREC in the UK. Our result confirms that German firms highly engage in CS, which may be due to poor transparency level and lower investor protection rights reported by previous studies (La Porta et al., 2002, Antoniou et al., 2008).

The mean value of AC_SIZE and AC_MEET is 4.44 and 4.81 and is higher than the result reported by Zalata and Roberts (2016) as 3.39 and 3.81 in the UK. This indicates that German firms have more members on their audit committee and frequently meet than UK firms Also, the mean value of AC_FIN is 68.59, showing that more than half of the members on the audit committee have financial expertise, which is valuable for mitigating activities like earnings management. The mean value of the audit fee ratio AF_RATIO is 0.69, which is slightly lower than 0.78 reported by (Zhang et al., 2007).

…………......Insert Table I about here.............

Tables 2 show the correlation between our main study variables. Gujarati (2009) highlighted that Pearson coefficients must not be more than 80% to avoid the issue of multicollinearity. The highest correlation reported was 0.48 between ROA and FS. This result confirms that the correlation coefficients are less than the conventional thresholds, which means there is no multicollinearity problem among the main variables.

…………......Insert Table II about here..........

4.2 Evidence of Classification Shifting (CS)

Before examining the effect of ACs and audit fees on the CS, we examine whether German firms use CS as a viable method to manipulate earnings. Table III reports the regression result on whether there is a positive relationship between unexpected core earnings (UE_CE) and non-recurring items (NR_I). Following previous studies, we divided the sample into two parts a) a full sample of 820 firm-year observations b) a small sample of 750 firm-year observations shown in Table IV since it is expected that not all companies engage in CS (Zalata and Roberts, 2016, Zalata and Roberts, 2017). Regarding the second sample, McVay (2006) emphasised that managers misclassify recurring items as non-recurring expenses in the year that non-recurring items are recognised. Similarly, Zalata and Roberts (2016) argued that firms with non-recurring expenses are likely to engage in CS. Therefore, firms with non-recurring revenues are excluded in the second sample. We found that most German firms engage more in NR_I (income-decreasing) as the sample size is not reduced significantly.

In line with previous studies, we found a positive and significant relationship between NR_I and UE_CE at 1% for both samples, confirming that German companies engage in CS (Zalata and Roberts, 2017, Zalata et al., 2019). This result confirms that German firms manipulate their earnings by moving their recurring items within the income statement as non-recurring items. This inflation of core earnings through CS makes no impact on their bottom-line earnings. Our result is in line with other UK and US based studies (McVay, 2006, Fan et al., 2010, Zalata and Roberts, 2016, Zalata and Abdelfattah, 2021). In line with Zalata and Roberts (2016), UE_CE is negatively related to firm size (FS), highlighting that large German firms are less likely to engage in CS.

In the UK, Peasnell et al. (2005) found a negative relationship between ROA and discretionary accruals. In contrast, we found a positive relationship: German firms with excellent performance are likely to engage in CS than accrual earnings management. A similar result is reported by Zalata and Roberts (2016) for UK firms. The other control variables used in the model show a similar relationship, as reported by prior CS studies (Barua et al., 2010, Zalata and Roberts, 2017).

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4.3 Audit Characteristics, Audit Fees and Classification Shifting

Having established the evidence of CS, we examine the impact of ACs and audit fees on the misclassification of recurring items. As expected, we find that NR_I is positively related to classification shifting. Our result is economically significant since a unit increase in CS corresponds to a 1.48 increase in NR_1. AC_FIN is negatively associated with classification shifting. We also show that a 3.2 increase in AC_FIN leads to a unit change in CS.

To investigate whether AC_SIZE impacts the extent of CS, the interaction variable (NR_I x AC_SIZE) is of primary interest. Unlike Zalata and Roberts (2016), we found a negative and insignificant relationship between (NR_I x AC_SIZE) and UE_CE, meaning that it has no impact on CS. Köhler (2005) pointed out that the audit committees in Germany are semi-regulated, and the composition of the audit committee is biased due to the formation of the German supervisory board. Hence, the interaction variable (NR_I x AC_MEET's) is negatively and significantly related to UE_CE, which implies that the frequency of audit committee meetings has a mitigating effect on CS. This shows that audit committee who meet frequently can monitor effectively. The interaction variable (NR_I x AC_FIN) is negatively and significantly linked with unexpected core earnings, confirming that audit committee

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members with financial expertise curbs earnings manipulation using CS (Zalata and Roberts, 2016, Zalata et al., 2018b). Regarding audit fees, Table V shows a negative relationship between the interaction variable (NR_I x AF_RATIO) and CS. Our result is in line with the notion that high auditor fees improve the quality of financial reporting (Alzoubi, 2018). We found a similar result after excluding the non-recurring revenues from the sample in Table VI.

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4.4 Additional Analysis & Robustness

There are various ways to manipulate earnings, including accrual earnings management, real earnings management, and CS. We mainly focused on CS in our primary analysis. Van Tendeloo and Vanstraelen (2005) found that German companies engaged in accrual earnings management, and the introduction of IFRS has no impact on it. Therefore, we used the modified Jones model to investigate whether ACs impacts accrual earnings management similar to CS or not. Following Gabrielsen et al. (2002) and Kothari et al. (2005) model, we used the absolute value of discretionary accruals (ABS_DAC) as a proxy of accrual earnings management

$$ABS\_DAC_n = \left[\frac{TA_n}{TAS_{n-1}}\right] - \left[\alpha_1 \frac{1}{TAS_{n-1}} + \alpha_2 \frac{(\Delta REVES_t - \Delta RECVS_t)}{TAS_{t-1}} + \alpha_3 \frac{PP\&E_t}{TSA_{t-1}} + \mu_n\right] \quad (4)$$

TA_t stands for the total accruals and estimated as earnings before abnormal items minus less cash flow from operations. $\Delta REVES_t$ represent the company revenues and $\Delta RECVS_t$ are the company receivables in year n. The symbol $PP\&E_n$ stands for the property, plant, and equipment and μ_n represents the residual. We used lagged total assets as a deflator to deal with the issue of heteroscedasticity.

In line with the main analysis, Table VII reported that AF_RATIO and AC_MEET restrain accrual earnings management. Constrastly, we found that AC_SIZE does have an impact on accrual earnings management. Hence, this shows the large audit committees effectively mitigate the extent of accrual earnings management. Our result is in line with prior studies, confirming that AQ does affect accrual earnings management (Xie et al., 2003, Peasnell et al., 2005).

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For robustness, this study used a two-step generalised method of moments (GMM) regression and the purpose is to enhance the efficiency of the estimates and ensure consistent estimation by eliminating the issues arising from weaker instruments (Tunyi et al., 2019, Areneke and Tunyi, 2020, Salem et al., 2021). Also, the adoption of GMM regression resolves any endogeneity issues. Table VIII presents the findings of the GMM regression and confirms the validity of the main outcomes in Table V. Therefore, we conclude that our main findings are less likely to be driven by endogeneity issues.

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5. Conclusion

Our study investigates whether German firms engage in classification shifting. We also examine the impact of audit fees and audit characteristics on CS among German non-financial listed companies from 2010 until 2019. Our study's first objective is to examine whether managers move core expenses to non-recurring items within the income statement to boost their core earnings. We used a full sample of 820 firm-year observations and a small sample of 750 firm-year observations excluding non-recurring revenue items. Our findings show that managers do misclassify recurring items in both samples and that the implementation of IFRS has no mitigating impact on classification shifting. Our paper used audit committee size,

frequency of audit committee meetings, and audit committee financial expertise as a proxy of ACs and audit fees ratio. We found that CS is negatively related to the audit fee ratio, confirming that a high auditor fee reflects a better audit quality. We found no relation between audit committee size and CS, suggesting that the audit committee's size does not reflect the quality of the audit process.

Furthermore, we found a negative relationship between audit meetings and CS, which implies that active audit committees have sufficient time to uncover sophisticated issues like CS. We also found that the presence of financial expertise within the audit committee has a mitigating effect on classification shifting. As robustness of our primary analysis, we employed the modified Jones model to investigate whether ACs have a similar impact on accrual earnings management and found similar results. Our paper provides evidence of CS among German non-financial firms and implies that there is a need to improve the transparency level in German firms' financial reporting process. It also highlights the importance of audit fees in the mitigation of CS.

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Table I: Descriptive Statistics

Variables	Obs	Mean	Std.Dev.	Min	Max
UCE	820	0.00	0.34	-0.19	0.17
NRI	820	0.12	0.31	0.00	0.21
AC_SIZE	820	4.44	1.35	1.00	9.00
AC_MEET	820	4.81	1.75	1.00	12.00
AC_FIN	820	68.59	19.16	0.00	85.79
AF_Ratio	820	0.69	0.18	0.57	0.84
FS	820	15.61	2.98	12.26	18.96
CF	820	0.10	0.07	0.06	2.42
LEV	820	0.24	0.19	0.02	0.65
ROA	820	0.06	0.05	0.02	0.37
BMV	820	1.76	3.36	0.07	2.39

Note: The definitions of the variables are presented in appendix 1

Table II: Pearson Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) UCE	1.00										
(2) NRI	0.19***	1.00									
(3) AC_SIZE	0.09***	0.05	1.00								
(4) AC_MEET	-0.04***	-0.05	-0.12*	1.00							
(5) AC_FIN	0.03	0.02	-0.25*	0.03	1.00						
(6) AC_RATIO	-0.13***	-0.07	0.06	-0.05**	-0.01	1.00					
(7) FS	0.07	0.36	0.14	0.01	0.05**	-0.10	1.00				
(8) CF	-0.06	0.321	-0.01	-0.01*	0.05	-0.09*	-0.16	1.00			
(9) LEV	-0.10*	-0.00	-0.09*	0.05*	0.12	0.23	-0.07**	-0.05*	1.00		
(10) ROA	0.12*	-0.36*	0.04	0.25*	0.01*	-0.04	-0.48*	-0.09**	0.25*	1.00	
(11) BMV	-0.03	-0.21*	-0.02	0.04	0.11	-0.04	-0.18*	0.12**	0.04	0.13	1.00

Table III: Evidence of CS (full sample)

Variables	Co-efficient	T-statistic
Constant	0.114	4.60***
NR_I	0.283	8.82***
FS	-0.010	-7.24***
LEV	0.040	1.54
CFO	-0.087	-2.12**
ROA	0.413	7.23***
BMV	-0.004	-2.01**
Year Fixed Effect	YES	
Adjusted R-sq.	0.18%	
Number of Obs.	820	
Period	2010-2019	

Note. ***, **, *, indicate significance at 1%, 5% and 10%.

Table IV: Evidence of CS (Positive NR_I item)

Variables	Co-efficient	T-statistic
Constant	0.111	4.57***
NR_I	0.323	9.54***
F_SI	-0.009	-6.92***
LEVGE	0.033	1.29
CFOS	-0.062	-1.56
R_OA	0.272	5.62***
BTMV	-0.006	-2.93*
Year Fixed Effect	YES	
Adjusted R-sq.	0.20%	
Number of Obs.	750	
Period	2010-2019	

Note. ***, **, *, indicate significance at 1%, 5% and 10%.

Table V: Impact of ACs on CS (Full Sample)

Variables	Co-efficient	T-statistic
Constant	0.1170	0.24
NR_I	0.6779	5.20***
AC_SIZE	0.0109	1.56
AC_MEET	0.0011	0.49
AC_FIN	-0.3010	2.13***
AF_RATIO	0.0511	3.39***
NR_I x AC_SIZE	-0.0338	-0.50
NR_I x AC_MEET	-0.0059	-1.71**
NR_I x AC_FIN	-0.3371	-3.13***
NR_I x AF_RATIO	-0.2673	-4.77***
FS	-0.0109	-6.90***
LEV	0.0562	1.86*
CFO	-0.7906	-1.77**
ROA	0.4360	6.68***
BMV	-0.0037	-1.59
Year Fixed Effect	YES	
Adjusted R-sq.	0.25	
Number of Obs.	820	
Period	2010-2019	

Note. ***, **, *, indicate significance at 1%, 5% and 10%.

Table VI: Impact of ACs on CS (Firms with NREC items)

Variables	Co-efficient	T-statistic
Constant	0.0786	1.86**
NR_I	0.5006	6.05***
AC_SIZE	-0.0015	-0.25
AC_MEET	0.0037	1.73*
AC_FIN	0.233	1.99
AF_RATIO	0.0350	2.45**
NR_I x AC_SIZE	0.0143	1.59
NR_I x AC_MEET	-0.0284	-2.59***
NR_I x AC_FIN	-0.2411	-2.87***
NR_I x AF_RATIO	-0.1406	-3.73***
FS	-0.0108	-7.02***
LEV	0.0444	1.50
CFO	-0.0439	-1.03
ROA	-0.0056	5.70***
BMV	0.3037	-2.44**
Year Fixed Effect	YES	
Adjusted R-sq.	11%	
Number of Obs.	750	
Period	2010-2019	

Note. ***, **, *, indicate significance at 1%, 5% and 10%.

Table VII: Impact of ACs and Audit Fees on Discretionary Accruals using Modified Jones Model

Variables	Co-efficient	T-statistic
Constant	0.1924	5.60***
AC_SIZE	-0.0206	-4.50***
AC_MEET	-0.0039	-2.23***
AC_FIN	-0.247	-1.75***
AF_RATIO	-0.0717	-5.84**
FS	-0.0010	-0.67
LEV	0.0102	0.35
CFO	-0.0976	-2.47**
ROA	0.0564	1.94*
BMV	0.0014	0.61
Year Fixed Effect	YES	
Adjusted R-sq.	10%	
Number of Obs.	820	
Period	2010-2019	

Note. ***, **, *, indicate significance at 1%, 5% and 10%.

Table VIII: Robustness Test

N.RI	0.246***
	(0.043)
AC_SIZE	-0.085**
	(0.033)
AC_GD	-0.050***
	(0.015)
AC_MEET	-0.005
	(0.006)
AC_EXP	-0.228***
	(0.049)
AC_SIZE * N.RI	-0.024***
	(0.006)
AC_GD * N.RI	-0.020***
	(0.003)
AC_MEET * N.RI	0.013
	(0.016)
AC_EXP * N.RI	-0.283***
	(0.042)
SZ	0.032***
	(0.011)
LVE	-0.031
	(0.023)
CFOs	-0.020***
	(0.007)
BTM	0.029
	(0.021)
RA	0.174***
	(0.060)
GDP	0.023
	(0.018)
INF	-0.007
	(0.006)
Constant	-0.074*
	(0.044)
Observations	840
Sargan (%)	37.12
AR1	0.138
AR2	0.325

Appendix 1: List of Variables

Variables	Description
UE_CE	Unexpected core earnings measured as reported core earnings less expected core earnings, scaled by sales
NR_I	Non-recurring items measured as core earnings less bottom-line earnings, scaled by sales.
AC_SIZE	Audit committee size is measured as the total number of members on the audit committee
AC_MEET	Audit committee meetings are measured as the number of meetings held in a financial year.
AC_FIN	Audit committee Financial Expertise is measured as the number of audit committee members with financial expertise.
AF_RATIO	The audit fee ratio is measured as a ratio of audit fee to the total fee (AF_Ratio).
FS	Firm size is measured as the natural logarithm of total assets.
CFO	Cash flow from operations scaled by lagged total assets.
LEV	Total liabilities/total assets.
ROA	Net income/average total assets.
BMV	Total assets/market capitalization.