Social ties between the CEO/CFO and the audit committee in the European Union

Author: Brent Mattheij

Student number: 4101472

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University: Radboud University

Faculty: Nijmegen School of Management

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Supervisor: Dr. M.G. Contreras

Abstract:

This thesis investigates the influence of social ties between the CEO/CFO and the audit committee on the quality of financial oversight for European firms from 2010 till 2015. Based on prior literature, it is expected that social ties reduce the audit committee's quality of financial oversight. Using data from from E.U.-listed companies, a negative relationship between CEO/CFO-audit committee social ties and quality of financial oversight is found. Moreover, the results show that CFO-audit committee social ties decrease the quality of financial oversight more than CEO-audit committee social ties.

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1 Introduction

The corporate scandals from the early 2000s like those from Ahold and Enron decreased the trust of investors, debtors, stakeholders and the general public had in financial reporting. As response to these corporate scandals, legislators introduced corporate law reforms aiming at restoring trust in the financial reporting process. Examples of such corporate law reforms include the Sarbanes-Oxley Act of 2002 in the U.S. and the 8th Company Law Directive on Statutory Audit[1] in the E.U. These corporate laws set new and expanded requirements for in the United States and the European Union. An important implication of these corporate laws was the independence requirement of the audit committee members. Legislators introduced audit committee independence requirement, because the scandals showed that the lack of independence of the audit committee influenced the objectivity and integrity to perform financial oversight. However, independence can be compromised in many ways with social relationships being one of them. Prior research showed that such social relationships may endanger the audit committee's primary task of conducting financial oversight (Beasley, Carcello, Hermanson, & Neal, 2009; Bruynseels & Cardinaels, 2014). The aim of this thesis is to investigate the influence of social ties between the CEO/CFO and the audit committee on the quality of financial oversight for European firms from 2010 till 2015.

The purpose of an independent audit committee is to conduct financial oversight and to oversee the objectivity and integrity of the financial statements (Klein, 2002a). Research has shown that the effectiveness of financial oversight is heavily influenced by the independence of the audit committee (Abbott, Parker, & Peters, 2004; Bronson, Carcello, Hollingsworth, & Neal, 2009). This suggests that when the audit committee is not fully independent, its financial oversight can possibly be compromised, which results in less objective and integral financial statements. Independence is a critical aspect to hold executive management accountable to shareholders and to ensure the audit committee fulfills objective financial oversight (Millstein, 1999). While regulation requires audit committee members to be independent, audit committee members can still be associated with executive management through social ties such as overlapping employment positions, former education or other non-professional activities, sports clubs, country clubs and charity organizations

[1] Council Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts [2006] OJ L157/87

(Hwang & Kim, 2009). These social ties may endanger the audit committee's task of financial oversight, because friendly directors are more likely to approve the CFO/CEO's reporting policies without critically reviewing it. Therefore, social ties can reduce independence of audit committee members and may reduce the audit committee's monitoring abilities.

The social ties can be just as harmful as non-independent audit committee members, because both hamper the ability to question executive management (Carcello & Neal, 2000). Prior research on the audit committee does not address the social ties aspect, but focused on the association between the composition of the committee and the quality of financial oversight (Carcello, Hermanson, & Ye, 2011; Klein, 2002a, 2002b). These studies assumed that the audit committee is independent, because it is a legal obligation. Literature provides studies on social ties, but research is to large extent focused on the connections between the board of directors and the CEO (Krishnan, Raman, Yang, & Yu, 2011). The study of Bruynseels and Cardinaels (2014) is very close to this research, they investigated the influence of social ties between the CEO and the audit committee on the quality of financial oversight for U.S.-listed companies from 2004 to 2008. Their results show that social ties lower the quality of financial oversight. However, their study does not address to what extent social ties between the CFO and audit committee have an adverse effect on the audit committee's financial oversight. The CFO has a significant influence on the firm's earnings (Geiger & North, 2006; Jiang, Petroni, & Wang, 2010), so social ties between the CFO and audit committee may be more detrimental than social ties with the CEO. Therefore, this thesis also takes social ties between the CFO and audit committee into account.

This thesis makes several contributions to the literature. First, existing literature has addressed the issue of social ties between the CEO and audit committee, but paid little attention to social ties between the CFO and audit committee. Therefore, it remains unclear what the influence of social ties between the CFO and audit committee is on the quality of financial reporting. The second contribution is related to the data coverage on social ties. Prior research on social ties investigates only U.S. firms short after the implementation of the SOX. However, no research on social ties is conducted on European firms at all. It might be that the social ties relation between executive management and audit committee have a different effect in Europe, compared to the U.S. By examining these possibilities, this thesis tries to fill the gap in the existing literature.

This thesis is organized as follows: Chapter 2 reviews the existing literature and presents the hypotheses. Chapter 3 explains the data and the methods used for the analysis. Chapter 4 presents the results and chapter 5 concludes.

2 Literature review

This chapter elaborates on the relevant literature about the effect of independence between the CEO/CFO and the audit committee on the quality of financial oversight. This section starts with a small review of responsibilities of the CEO, CFO and audit committee. Organizations rely on two key players to ensure the quality of financial reports, the CFO and the audit committee. The CEO is indirectly involved in the financial reporting process, because the CEO oversees the CFO and is responsible for nominating directors (in most firms). The CFO is responsible for managing the internal audit department and controlling department. The internal audit department is responsible for detecting and eliminating (internal) fraud and providing risk management. The controlling department is responsible for reporting and data collection and therefore compiles that the balance sheets and income statements. As these two departments are under supervision of the CFO and these are directly related to the reporting and accounting process, the CFO is responsible for the integrity of the financial reporting systems (Zimmerman, 2014). Another key player, the audit committee, is an internal governance mechanism that performs the oversight on the financial reporting process and enhances the quality of financial statements by increasing objectivity (Beasley et al., 2009; Klein, 2002a). The audit committee is involved in the external audit, because the committee selects the external auditor and meets separately with the external auditor and the financial management (CFO) to discuss the audit process. The selection of the external auditor by the audit committee helps to prevent conflicts of interest between executive management and the external auditor (Klein, 2002a, 2002b; Naiker & Sharma, 2009; Nelson, Elliott, & Tarpley, 2002).

Because the audit committee is such an important internal control mechanism, the literature puts a lot of emphasis on the audit committee's role as corporate governance mechanism to prevent fraudulent statements and its role as arbiter to mitigate difference in opinion with executive management. Most research is conducted on characteristics of audit committee that ensures objective and efficient functioning. Research examined the size of the audit committee, its independence, number of members with financial expertise and the frequency of their meeting (Carcello, Hermanson, et al., 2011). The literature widely regards independence as crucial for good corporate governance (Carcello & Neal, 2000; Klein, 2002a). Main regulatory bodies also have acknowledged that objective and efficient monitoring by the

audit committee is ensured by independent non-executive directors. In the U.S., the Sarbanes-Oxley Act of 2002 required that the audit committee should only by composed of independent directors. In the E.U., the European Commission passed the 8th Company Law Directive on Statutory Audit[2], which requires that at least one director in the audit committee is independent. In U.S. and E.U. independent directors are defined as no financial or family ties to executive management or the firm (see appendix 7.2 for more information).

The legally imposed independency obligation of audit committee members has drawn attention towards the audit committee as corporate governance mechanism, especially in the U.S. Commonly investigated in papers is the association between audit committee independence and quality of financial reporting or even fraudulent practices. As these measures reflect the quality of financial oversight, several interesting results are found. Bronson et al. (2009) found that audit committee independence is necessary for effective financial monitoring. They investigated the issuance of going-concern reports and auditor dismissals following a going-concern report. Their results indicate that non-independent audit committee members are problematic when the firm encounters financial distress, as non-independent members will support executive management instead of the external auditor. The importance of an independent audit committee as corporate governance mechanism is also showed by Farber (2005), who showed that firms with an efficient corporate governance mechanism are valued higher by investors.

A common research subject is the relation between audit committee independence and earnings management. A high presence of earnings management is reflected as a lower quality of financial reporting (Healy & Wahlen, 1999). For example, Klein (2002a) investigated whether audit committee and board characteristics are related to abnormal accruals, as a proxy for earnings management. She found a decrease in abnormal accruals, when there is a majority of independent directors on the board or the audit committee. No significant results are found when the audit committee only consists of independent directors, compared to a majority of independent of directors. A study of Bédard, Chtourou, and Courteau (2004) investigated earnings management measured by income-increasing and income-decreasing abnormal accruals by using two groups of U.S. firms. Their investigation shows that aggressive

[2] Council Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts [2006] OJ L157/87

earnings management has a negative relationship with audit committee independence, which is measured by financial expertise of audit committee members. The negative relationship is similar for both types of abnormal accruals. Consistent with the other papers, Saleh, Iskandar & Rahman (2007) also find a negative relationship between audit committee independence and earnings management.

The literature also uses other proxies for financial reporting quality than earnings management. Fraudulent practices are an interesting proxy for financial reporting quality. Abbott et al. (2004) examined 78 firms that were sanctioned by the SEC for fraudulent reporting. They found that firms with an independent audit committee decrease the likeliness of fraud and fraudulent misstatements. The results of their analysis are similar with Beasley, Carcello, Hermanson and Lapides (2000), who showed that fraudulent companies have significantly less independent audit committees than the control group. Another interesting proxy for financial reporting quality is audit fees. Research shows that audit committees consisting solely of independent members have a positive association with higher audit fees. Assuming that a higher audit fee is associated with a higher audit assurance, an independent audit committee enhances financial oversight by a more thorough external audit (Abbott et al., 2003).

Despite of regulatory audit committee requirements, it is still possible that audit committee members are not independent. A survey of Beasley et al. (2009) found that CEOs often appoint directors from their informal social network. CEOs know directors from previous employment or they have personal ties with each other. The observation of Beasley et al. (2000) is in accordance with managerial hegemony theory, which states that management will choose friends as non-executive directors who will not criticize their actions. Hence, the audit committee will consist of passive participants who are dependent on information and insights about the firm form executive management. This theory implies that the audit committee becomes purely symbolic and loyal to executive management even if the non-executive are formally independent (Beasley et al., 2009; J. R. Cohen, Krishnamoorthy, & Wright, 2008). Moreover, it implies that audit committee members do no monitor critically and do not protect shareholders' interest against opportunistic behavior of executive management (Fama & Jensen, 1983). The managerial hegemony theory is supported by the research of Carcello, Neal, Palmrose and Scholz (2011). They found evidence that independent audit committees that include financial experts improve the effectiveness of monitoring, but only

when the CEO is not involved in the director selection process. This research is indirect evidence that independent directors can be linked to executive management in many others ways, than financial or familial ties. In the study of Beasley et al. (2009) is stated that an audit committee member know executive management, because the CFO is a personal friend or the wives of the CEO and audit committee are friends. This suggests that ties between executive management and the audit committee are formed in the informal social environment.

The impact of links formed through the informal social environment on corporate governance has been investigated by prior research. In the literature links formed through the informal social environment are usually called social ties. Most research on social ties is focused on the interaction between the CEO and the board of directors. The research on the board of directors is relevant for this thesis, because the effectiveness of the audit committee is related to the effectiveness of the board of directors (DeFond, Hann, & Hu, 2005; Krishnan & Visvanathan, 2008). Studies on social ties between the CEO and board of directors found mostly a negative effect, but in some cases social ties are beneficial. A study of Schmidt (2015) showed that social ties between the CEO and the board of directors are sometimes advantageous for mergers and acquisitions. His results are consistent with Westphal (1999), who showed that social ties also increase the collaboration between the CEO and the board of directors. Both studies showed that social ties between the CEO and the board of directors can have beneficial effects on corporate governance, due to a more involved board of directors. However, increased collaboration reduces monitoring by the board (Westphal, 1999). Another study of Hang & Kim (2009) shows that social ties between the CEO and the board members increases the compensation of CEOs, which indicates that social ties negatively influence board monitoring. The study of Fracassi & Tate (2012) shows some contradicting results compared to the study of Schmidt (2015). They found evidence that social ties between the CEO and the board of directors causes more value-destroying acquisitions, which reduce the firm's value. Fracassi & Tate (2012) attribute this effect to the absence of effective monitoring of the board of directors. The previous mentioned papers show mixed results of social ties between the CEO and board of directors. Nevertheless, the papers indicate that the CEO by means of social ties is capable to influence the board of directors. Therefore, it is possible that a CEO endangers the audit committee's primary task to provide financial oversight, when the CEO has social ties to the audit committee.

Most research on social ties is focused on the interaction between the CEO and the

board of directors. Research on social ties between CEO/CFO and the audit committee is scarce. A study of Bruynseels and Cardinaels (2014) examine the influence of social ties between the CEO and the audit committee on the quality of financial oversight by conducting an empirical research on U.S. listed companies between 2004 and 2008. They created three categories of social ties that can arise between the CEO and audit committee members. These categories are: employment, education and other activities (sports clubs, leisure clubs, charities organizations). Their results show a negative association between CEO and audit committee social ties and quality of financial oversight. The lower quality of financial oversight is measured by an increase in earnings management, lower audit fees, lower likelihood of reporting internal control weakness and lower likelihood of issuance of going-concern opinion by external auditors (Bruynseels & Cardinaels, 2014).

The consensus in the literature shows that a lower level of independence of the audit committee has an adverse effect on the quality of financial oversight. Furthermore, prior research provides evidence that more ties between executive management and audit committee leads to less independence, therefore the following hypothesis is formulated:

> **H1**: As the proportion of social ties between the CEO and audit committee members increases, the quality of financial oversight decreases.

The influence of social ties between the CFO and audit committee on the quality of financial oversight has not received much attention in the literature. Based on the outline of the firm's accounting organization, the CFO is in a good position to influence the financial reporting process. A study of Geiger and North (2006) supports this view, by showing that a change of CFO leads to significant reduction in discretionary accruals. Moreover, research of Krishnan et al. (2011) investigated the relation of social ties between CFO/CEO and board of directors and earnings management. Their study shows that there is a positive relationship, which implies that social ties weaken the financial reporting system and lower the information quality. However, this study examines the impact of social ties between CEO/CFO and board of directors and not the audit committee. The effectiveness of the audit committee is related to the effectiveness of the board of directors (DeFond et al., 2005; Krishnan & Visvanathan, 2008). This suggests that the audit committee's financial oversight is weak when the CFO has

social ties to the board of directors. Therefore, the paper assumes that audit committees with members who have social ties to the CFO will result in a lower oversight of financial reporting.

> **H2:** As the proportion of social ties between the CFO and audit committee members increases, the quality of financial oversight decreases.

The first and second hypotheses are quite similar in research subject. The only difference is that the first hypothesis investigates the CEO and the second hypothesis investigates the CFO. This division between CEO and CFO allows to make a comparison of social association of CEO and CFO. Furthermore, it can give insight which social ties has more influence on the quality of financial oversight. The third hypothesis combines the first and second hypotheses by aggregating the social ties of CEO and CFO. Prior research of Krishnan et al. (2011) showed that any social ties between the CEO/CFO and the audit committee reduces the monitoring of the board of directors. Since oversight of the audit committee is related to oversight of board of directors (DeFond et al., 2005; Krishnan & Visvanathan, 2008), the paper expects that social ties between the CEO/CFO and audit committee members are associated with lower quality of financial oversight. In addition, the third hypothesis allows to see a possible enhanced or weaken effect of social ties on the quality of financial oversight.

> **H3:** As the proportion of social ties between the CEO/CFO and audit committee members increases, the quality of financial oversight will decrease.

The last hypothesis considers whether the CEO or CFO has more influence on the quality of financial oversight. A research of Jiang, Petroni and Wang (2010) finds that the role of the CFO in earnings management is greater than the role of CEO. They find evidence that the role of CFO equity incentives is greater in earnings management than the equity incentives of the CEO. Given the CFO's responsibilities in the financial reporting process, the CFO has a greater ability to influence the process than the CEO. In addition, the research of Beasley et al. (2009) shows that the CFO is more involved in communication with the audit committee than the CFO. The CFO has more informal meetings with audit committee members and has more input on the agenda of the audit committee meeting. Therefore, the paper assumes that social ties

between the CFO and the audit committee have a more detrimental effect on the quality of financial reporting than the social ties between the CEO and the audit committee.

> **H4:** The proportion of social ties between the CFO and the audit committee members will decrease the quality of financial oversight more than the proportion of social ties between the CEO and the audit committee.

The literature offers several constructs to measure the quality of financial oversight. The first variable for the quality of financial oversight is earnings management, because prior research shows that the accuracy of financial reporting is a key issue during audit committee meetings (Beasley et al., 2009; Gendron et al., 2004). Earnings management is a management judgement call to take advantage of the accounting standards to intentionally influence the financial statement of a firm. Due to intentionally influencing the financial statements, a higher presence of earnings management is associated with a reduction in quality of financial oversight (Healy & Wahlen, 1999). The reduction in quality of financial oversight is an indication of lower quality of financial oversight of the audit committee. High quality financial oversight should not allow or at least reduce the level of earnings management.

The level of earnings management is measured through the amount of discretionary accruals, because discretionary accruals allow management to choose the acceptable accounting method for reporting the same economic transaction (Healy & Wahlen, 1999). Discretionary accruals cannot be observed directly from the balance sheet or income statement, therefore the discretionary accruals are calculated using the modified Jones model of Dechow et al. (1995). This thesis follows the method of Hwang & Kim (2009) to calculate the amount of discretionary accruals, who based their model on the research of Klein (2002a), Cohen, Dey & Lys (2008) and Dechow et al. (1995). The model of Dechow et al. (1995) is a cross-sectional variant of Jones (1991) model. The standard Jones (1991) model estimates the expected non-discretionary accruals by controlling for changes in the economic environment of the firm. The model assumes that revenues are non-discretionary accruals. However, there are circumstances that management can use its discretion to manage revenue accruals. Management can increase revenue through an increase in receivables. The modified Jones model of Dechow et al. (1995) corrects for this bias by eliminating the discretionary accruals.

The second variable of quality of financial oversight is the level of audit effort (Abbott

et al., 2003; Davis et al., 1993). This study measures this variable by the level of audit fees, because prior research shows that audit committees consisting solely of independent members have a positive association with higher fees and a higher audit fee is associated with a higher audit assurance (Abbott et al., 2003).

3 Methodology

3.1 Data

The sample of this thesis consists of 439 publicly listed firms, their CEOs, CFOs and the members of the audit committee within the E.U. from 2010 to 2015. The 8th Company Law Directive of European Union[3] was passed in 2006, however it takes some time before E.U. member states integrated the 8th Company Law Directive in their national laws. The deadline of the transposition of the 8th Company Law Directive of European Union into the national laws was 28 June 2008 (European Union, n.d.). However, companies also need time to incorporate the new laws, therefore time period 2010 till 2015 is chosen. The firms in the sample are listed in the major European stock indices. For the Netherlands, mid-cap firms (medium sized firms based on market capitalization) are also added to the sample, because BoardEx does not differentiate between AEX firms (large-cap) and AMX firms (mid-cap). An overview is provided of the selected indices and the number of firms in our sample.

Table 1: Selected indices by country

	Stock Index	Size of Index	Country (ISO-code)
	AEX	25	Netherlands (NLD)
	AEX MID-CAP	25	Netherlands (NLD)
	ATX	20	Austria (AUT)
	BEL-20 INSTITUTIONAL	20	Belgium (BEL)
	CAC 40	40	France (FRA)
	DAX	30	Germany (DEU)
	Euro Stoxx 50	50	Europe
	FTSE 100 (GBP)	100	United Kingdom (GBR)
	IBEX 35	35	Spain (ESP)
	ISEQ OVERALL	20	Ireland (IRL)
	LUXX	9	Luxembourg (LUX)
	OMX Copenhagen 20	20	Denmark (DNK)
	OMX Helsinki 25	25	Finland (FIN)
	OMX Stockholm 30	30	Sweden (SWE)
	PSI-20	20	Portugal (PRT)
	SMI	20	Switzerland (CHE)
Total	16	439	

[3] Council Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts [2006] OJ L157/87

Since the data concerning CEOs, CFOs and audit committees is obtained through BoardEx, the sample consists of firms for which data is available in BoardEx. The data is collected from four different databases: BoardEx, Compustat, Thomson Eikon and AuditAnalytics. The BoardEx database contains biographical information on most board members and top executives of publicly traded firms, current and past employment, education and other activities, such as club membership and affiliation with nonprofit organizations. The data of BoardEx is utilized to construct the social ties variables. Financial data of the firms is received from the CompuStat database and AuditAnalytics and Thomson Eikon is used for audit fee data.

The initial sample size would consist of 809 observations. However, BoardEx does not cover all these firms in all years, therefore the sample is reduced to 459 observations. Due to missing data in BoardEx, Compustat, Thomson Eikon and Audit Analytics, the sample is further reduced. In Table 2 a breakdown of the sample size is provided. The table shows a difference in sample size for accruals model and audit fees model. This difference is caused by missing audit fee data and the cross-sectional estimations by industry cluster, which requires at least 10 observations.

Table 2: Sample breakdown

Description	Accruals Model	Audit Fees Model
Initial sample size of observations	809	809
No BoardEx data available	(350)	(350)
Missing data Compustat or BoardEx	(135)	(135)
Drop observations because of too small industry group (<10)	(146)	-
Missing audit fee data	-	(79)
Final Sample	177	245

In the following 3 tables the geographical breakdown, distribution of observations by year and distribution by industry are presented.

Table 3: Distribution of firms by year

Year	Accruals Model		Audit Fees Model	
	Observations	Percentage	Observations	Percentage
2010	169	17.11	216	17.06
2011	170	17.21	220	17.38
2012	160	16.19	208	16.43
2013	171	17.31	218	17.22
2014	172	17.41	217	17.14
2015	146	17.78	187	14.77
Total	988	100	1,266	100

Table 4: Distribution of firms by industry group

SIC Group		Accruals Model		Audit Fees Model	
		Observations	Percentage	Observations	Percentage
01-09	Agriculture, Forestry and Fishing	0	0	0	0
10-14	Mining	0	0	58	4.58
15-17	Construction	66	6.68	89	7.03
20-39	Manufacturing	583	59.01	602	47.55
40-49	Transportation and utilities	254	25.71	258	20.38
50-51	Wholesale Trade	0	0	30	2.37
52-59	Retail trade	0	0	90	7.11
70-89	Services	85	8.60	122	9.64
91-99	Public Administration	0	0	17	1.34
Total		988	100	1,266	100

Table 5: Distribution of firms by country

Country	Accruals Model		Audit Fees Model	
	Observations	Percentage	Observations	Percentage
Austria	44	4.45	56	4.42
Belgium	45	4.55	60	4.74
Switzerland	62	6.28	75	5.92
Germany	86	8.70	22	1.74
Denmark	54	5.47	74	5.85
Spain	112	11.34	121	9.56
Finland	78	7.89	116	9.16
France	103	10.43	107	8.45
United Kingdom	125	12.65	246	19.43
Ireland	36	3.64	78	6.16
Italy	4	0.40	0	0
Jersey	17	1.72	22	1.74
Luxembourg	25	2.53	16	1.26
The Netherlands	96	9.72	146	11.53
Portugal	29	2.94	33	2.61
Sweden	72	7.29	94	7.42
Total	988	100	1,266	100

3.2 Variables

3.2.1 Dependent variables

In order to study the influence of social ties between the CEO/CFO and the audit committee members on the quality of financial oversight, two different dependent variables are used to proxy for the quality of financial oversight.

The first is *absolute discretionary accruals* (ADA), an interval variable capturing the presence and level of earnings management. This thesis uses the absolute value of discretionary accruals, because this thesis is not interested the direction of the earnings, but in the extent of earnings management. The discretionary accruals are estimated by industry-year clusters, which are formed by two-digit SIC codes. These industry-year clusters are created, because firm-specific-series estimations are noisy and unreliable (Givoly, Hayn, & Natarajan, 2007). The firm-specific time-series become unreliable, due to the naturally deviation of earnings from actual cash flows even in absence of earnings management. Also, firm-specific time-series may become unreliable, due to not having sufficient observations (Hwang & Kim, 2012). Each estimation is conducted with at least 10 observations. The first step is to calculate the amount of total accruals, which are calculated by the following estimation:

$$\frac{TA_{i,t}}{Assets_{i,t}} = \beta_0 + \beta_1 \left[\frac{1}{Assets_{i,t-1}}\right] + \beta_2 \left[\frac{\Delta REV_{i,t}}{Assets_{i,t-1}}\right] + \beta_3 \left[\frac{PPE_{i,t}}{Assets_{i,t-1}}\right] + \varepsilon$$

Where:

$TA_{i,t}$	= Total accruals for firm *i* in year *t*. Accruals are defined as income before extraordinary items minus cash flow from operations
$Assets_{i,t}$	= Total assets of year *t-1* for firm *i* in year
$\Delta REV_{i,t}$	= Change in revenue in year *t* compared to year *t-1* for firm *i*
$PPE_{i,t}$	= Gross property, plant and equipment

(Dechow et al., 1995, pp. 198-199; Hwang & Kim, 2012, p. 7)

The second step is to use the fitted values as input for the next equation to calculate the companies' non-discretionary accruals.

$$NDA_{i,t} = \widehat{\beta_0} + \widehat{\beta_1} \left[\frac{1}{Assets_{i,t-1}}\right] + \widehat{\beta_2} \left[\frac{(\Delta REV_{i,t} - \Delta AR_{i,t})}{Assets_{i,t-1}}\right] + \widehat{\beta_3} \left[\frac{PPE_{i,t}}{Assets_{i,t-1}}\right] + \varepsilon$$

Where:

$NDA_{i,t}$	= Non-discretionary accruals for firm *i* in year *t*.
$\Delta AR_{i,t}$	= Change in account receivables in year *t* compared to year *t-1* for firm *i*

(Dechow et al., 1995, pp. 198-199; Hwang & Kim, 2012, p. 7)

The final step is to calculate the discretionary accruals, which is the difference between the total accruals and the non-discretionary accruals.

$$\left|ADA_{i,t}\right| = \frac{TA_{i,t}}{Assets_{i,t}} - NDA_{i,t}$$

Where:

$ADA_{i,t}$	= absolute discretionary accruals for firm *i* in year *t*.

(Dechow et al., 1995, pp. 198-199; Hwang & Kim, 2012, p. 7)

The second dependent variable is audit fees. The level of audit fees is extracted from Audit Analytics and Thomson Eikon and added as dependent variable in the estimation.

3.2.2 Independent variable

The key independent variable of this research is *social ties* (TIES), a proportion capturing the amount of social tied audit committee members to the CEO, respectively the CFO, divided by the amount of possible social ties between the audit committee members and the CEO, respectively the CFO. This thesis identifies three different types of social ties that arise: employment, education and other activities (Bruynseels & Cardinaels, 2014; Fracassi & Tate, 2012; Krishnan et al., 2011). An audit committee member is socially tied to the CEO, respectively the CFO, when at least one tie is formed by employment, education or other activities. An employment tie is formed when the CEO, CFO and/or audit committee members have shared employment at other companies. An educational tie between individuals is created when the CEO/CFO and the audit committee member graduate from the same university. Even if they did not graduate at the same time, the educational tie is still formed, because it is assumed that the alumni network is strong and therefore the social ties is formed through the alumni network (L. Cohen, Frazzini, & Malloy, 2010). The last type of social ties is other activities. This measure consists of joint membership of sport clubs, leisure clubs, country clubs, non-profit associations and charities. An other-activities tie is established when individuals share a common past or present non-professional activity (Fracassi & Tate, 2012).

3.2.3 Control variables

Consistent with prior research on quality of financial oversight, this thesis control for various governance and economic factors that may influence the audit committee's independence

(Abbott et al., 2004; Abbott et al., 2003; Bruynseels & Cardinaels, 2014; Klein, 2002a; Krishnan et al., 2011) Control variables are added in the estimation, that are related to corporate governance and the firm's economic characteristics. The variables related to corporate governance are: *size of the board*; *average years of directors' tenture*; *proportion of independent directors on the board*; *proportion of financial experts on the audit committee*; *size of the audit committee* and *chairmanship of the CEO of the board of directors*. The control variables for the firm's economic characteristics are: *a dummy which indicates whether the firm is audited by a big 4 firm*; *natural log of total assets*; *market-to-book ratio*; *long-term debt divided by last year's assets*, *the growth of sales compared with the preceding year* and *a dummy which indicates whether the firm has experienced a loss in the current or previous year*.

3.3 Descriptive statistics

Table 6 shows the distribution of independent and non-independent audit committees. It shows that on average 60 percent of audit committees for European firms is full independent. About 40 percent of the audit committees is not fully independent, but these audit committees consist of at least one independent member, because the 8th Company Law Directive of European Union (see footnote 3) requires it.

Table 6: Audit Committee Independence

	Observations (firm-year)	Percentage
Non-Independent Audit Committees	499	39.42
Independent Audit Committees	767	60.58
Total	1,266	100

Table 7 shows the proportion of audit committee (AC) members, who are not independent - also called formally tied - or socially tied to CEO or CFO. The results show that about 23 percent of the audit committee members is tied to the CEO. This percentage is lower for social ties with the CFO (14%), which indicates that the CEO is more connected with members of the audit committee than the CFO. Table 8 shows the proportion of audit committee member, who are independent but socially tied to the CEO or CFO. About 15 percent of the independent audit committee members are socially tied to the CEO and 9 percent of the audit committee

members are socially tied to the CFO. Again, the statistics show that the CEO is more connected to the audit committee member than the CFO.

Table 7: Proportion of Audit Committee members with ties (formal or social)

	2010	2011	2012	2013	2014	2015	Total
Proportion of tied AC members (CEO)	0.27	0.28	0.24	0.22	0.19	0.14	0.23
Proportion of tied AC members (CFO)	0.14	0.16	0.13	0.12	0.13	0.11	0.14
Number of observations	216	220	208	218	217	187	1,266

Table 8: Proportion of independent Audit Committee members with social ties

	2010	2011	2012	2013	2014	2015	Total
Proportion of tied independent AC members (CEO)	0.17	0.19	0.15	0.16	0.15	0.10	0.15
Proportion of tied independent AC members (CFO)	0.08	0.10	0.09	0.10	0.11	0.07	0.09
Number of observations	216	220	208	218	217	187	1,266

3.4 Models

The data for this analysis consists of repeated observations of the same companies over six years, thus a panel data analysis is conducted. With panel data consisting of firms, it is likely that the errors corresponding to the same firm are correlated over time. Some unobservable firm characteristics can influence the economic performance of a firm. If these are not included as explanatory variable, these are captured by the error term and will influence the firm over different years. Because of the assumption of correlated error terms only two effective models are left, fixed effects and pooled OLS with cluster-robust errors, as the random effects model assumes there is no correlation between the error terms. A pooled OLS estimation with clustering for standard errors by firm is used as panel data analysis method, because the panel data consists of time-invariant dummy variables, which cannot be captured by the fixed effects model. Year and industry dummies are added to pooled OLS estimation to control for unobserved fixed effects (Hill, Griffiths, & Lim, 2012, pp. 540-551).

The standard model used in this thesis is as follows:

$$QFO = \beta_0 + \beta_1 TIES + \beta_2 BOARDSIZE + \beta_3 BOARDTENTURE + \beta_4 INDEP + \beta_5 FINEXP + \beta_6 ACSIZE + \beta_7 CEOCHAIR + \beta_8 BIG4 + \beta_9 LNA + \beta_{10} MTB + \beta_{11} LDTDA + \beta_{12} SALESGR + \beta_{13} LOSS + \beta_{14} YEAR + \beta_{15} INDUSTRY + \varepsilon$$

Where QFO is the quality of financial oversight, measured by the level of absolute discretionary accruals (ADA) or the level of audit fees (LNAF) (see section 3.2.2); TIES is the proportion of social ties between the CEO/CFO and the audit committee members; BOARDSIZE is the number of directors on the board; BOARDTENTURE contains the average years of the directors' tenture; INDEP is the proportion of independent directors on the board; FINEXP is the proportion of financial experts on the audit committee; ACSIZE is the number of audit committee members; CEOCHAIR is a dummy equal to 1 if the CEO is the chairman of the board of directors and 0 otherwise; BIG4 is a dummy equal to 1 if the firm is audited by a Big 4 auditor and 0 otherwise; LNA is the natural log of total assets; MTB is a market-to-book ratio; LDTDA is the long-term debt dividend by last year's assets; SALESGR is the sales growth from year t-1 to year 1; LOSS is a dummy equal to 1 if the firms experience a loss in year t or year t-1 and 0 otherwise; YEAR is a year dummy variable per year; INDUSTRY is a dummy variable of the 2-digit SIC industry code.

4 Empirical results

4.1 Accruals Analysis

Table 9 presents the descriptive statistics for the accruals analysis. The mean value of TIES_CEO shows that 19 percent of the independent audit committee members have at least one social tie with the CEO. This percentage is 4 percent higher than the percentage in Table 8, which can be explained in a difference in sample size (see section 3.1). The proportion of social ties between the CFO and independent audit committee members also shows a small increase in percentage (2%) compared to Table 8. About 16 percent of the independent audit committee members have social ties with the CEO and/or CFO. The audit committee consists on average of 4.2 members of whom 8 percent are financial experts. The board of directors is composed on average of 13 directors of whom 54 percent are independent and in about 34 percent of cases the CEO is chairman of the board of directors.

Table 9: Descriptive Statistics Accruals Model

	Mean	Median	Std. Dev.
ADA	0.0243	0.204	0.3020
TIES (CEO)	0.1923	0	0.2671
TIES (CFO)	0.1147	0	0.2366
TIES (CEO/CFO)	0.1578	0.0833	0.2241
BOARDSIZE	13.0147	12	4.9720
BOARDTENTURE	6.5440	6.33	2.3596
INDEP	0.5401	0.5590	0.2499
FINEXP	0.0813	0	0.1792
ACSIZE	4.2045	4	1.6511
CEOCHAIR	0.3411	0	0.4743
BIG4	0.9848	1	0.1223
LNA	18.3616	18.3614	1.7039
LDTDA	0.2302	0.2000	0.2091
MTB	1.9402	0.1712	13.5509
SALESGR	0.8227	0.0505	0.4931
LOSS	0.1528	0	0.3600

4.2 Test of hypotheses

Table 10 shows the results of the estimation of the proportion of socially tied audit committee members on the absolute value of discretionary accruals. The model indicates that there is no significant effect of social ties on absolute discretionary accruals for all three models (CEO, CFO, CEO/CFO).

Table 10: Absolute Discretionary Accruals Models (Dependent variable = ADA)

		CEO	CFO	CEO/CFO
TIES	+	-0.00449		
		(0.00482)		
TIES	+		-0.00353	
			(0.00563)	
TIES	+			-0.00331
				(0.00736)
BOARDSIZE	?	-0.000909^{+}	-0.000932*	-0.000926*
		(0.000461)	(0.000453)	(0.000456)
BOARDTENTURE	?	-0.000330	-0.000349	-0.000334
		(0.000673)	(0.000689)	(0.000683)
INDEP	-	-0.00786	-0.00812	-0.00805
		(0.0112)	(0.0111)	(0.0111)
FINEXP	-	0.00118	0.00205	0.00167
		(0.00832)	(0.00855)	(0.00833)
ACSIZE	?	-0.000272	-0.000234	-0.000248
		(0.000883)	(0.000883)	(0.000879)
CEOCHAIR	+	-0.00153	-0.00179	-0.00164
		(0.00314)	(0.00333)	(0.00323)
BIG4	-	-0.0134	-0.0133	-0.0133
		(0.00958)	(0.00966)	(0.00966)
LNA	-	-0.000229	-0.000273	-0.000260
		(0.00147)	(0.00146)	(0.00147)
LDTDA	+	-0.000821	-0.000917	-0.00102
		(0.0117)	(0.0118)	(0.0119)
MTB	?	-0.0000944*	-0.0000918*	-0.0000925*
		(0.0000387)	(0.0000386)	(0.0000387)
SALESGR	?	-0.00555	-0.00551	-0.00548
		(0.0108)	(0.0107)	(0.0108)
LOSS	?	0.0111**	0.0111**	0.0111**
		(0.00397)	(0.00400)	(0.00398)
Intercept		0.0646*	0.0652*	0.0649*
		(0.0287)	(0.0290)	(0.0289)
Year dummies		Yes	Yes	Yes
Industry dummies		Yes	Yes	Yes
Observations		951	951	951
Adjusted R^2		0.059	0.058	0.058
F		3.044	2.904	3.033

Standard errors in parentheses
$^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

This finding is not consistent with the formulated hypotheses, therefore H1, H2, H3 and H4 are rejected. The results of Table 10 are also inconsistent with prior research. Prior research found that social ties between CEO/CFO and audit committee increased earnings management (Bruynseels & Cardinaels, 2014; Krishnan et al., 2011). The results of this model seem contradicting, but there are several possible alternative explanations. First, the research of Krishnan et al. (2011) and Bruynseels and Cardinaels (2014) covers U.S. firms, while this investigation covers E.U. firms. E.U. firms face the problem of differences in institutional environments, such as differences in company laws. Also, the principles of conducting business and managing the firm differ between the E.U. countries. Secondly, the research of Krishnan et al. (2011) and Bruynseels and Cardinaels (2014) cover another period, 2000-2007 and 2004-2008. This thesis covers the period 2010-2015 and it is possible that the European debt crisis influenced the earnings and cash flows of European companies. Earnings and cash flows are volatile, due to economic conditions (operating volatility). Volatility in cash flows and earnings cause volatility in accruals, because the accruals are calculated by means of income before extraordinary items and cash flow from operations. Therefore, operating volatility can decrease or increase the amount of absolute discretionary accruals that not necessarily reflect creative accounting practices (Hribar & Nichols, 2007). Furthermore, extreme financial performance of firms causes that accruals model misspecifies the results. In the case of economic downturn, the model possibly underestimates the amount of discretionary accruals (Dechow et al., 1995). Thirdly, despite of the 8th Company Law Directive of European, there are still difference in corporate governance between E.U. member states. These differences can influence the relation between social ties and absolute discretionary accruals.

Another explanation consists of the model itself. The explanatory power of the model is very low with an adjusted R-squared of approximately 6 percent. Hence, the independent variables can only explain 6 percent of the variation of absolute discretionary accruals. The correlations among the independent variables are not higher than 0.576 (see Table 15 in the appendix). Therefore, there is no indication of multicollinearity, because the correlations are lower than 0.6 (Smits, 2015). Also, a VIF test is conducted to check for multicollinearity. A VIF score higher than 5 indicates multicollinearity (Smits, 2015). The average VIF score is 1.94 and no variable has a higher VIF than 3.69, therefore no multicollinearity is present. In section 4.3,

a robustness test is conducted to see whether including ties with non-independent audit committee leads to similar results

The governance control variable board size is significant at 10% level for the model with CEO social ties and shows negative association between larger boards and discretionary accruals. In the models with CFO and CEO/CFO ties the board size variable is even significant at 5% level. This result is consistent with the research of Klein (2002a), who showed that smaller boards conduct more effective monitoring. The results of the absolute discretionary accruals model also show that the financial control variable: market-to-book ratio is significant at 5% significance level and has a negative sign for all three models. This result is consistent with prior research of Klein (2002a) and Bruynseels and Cardinaels (2014). Moreover, another financial control variable, the dummy which indicates whether the firm experienced a loss in the current or previous year, has a positive effect on absolute discretionary accruals. This variable is significant at a 1% significance level for all three models.

Table 11 presents the descriptive statistics for the audit fee model. The mean values of the proportion of social ties between the CEO and/or CFO are comparable to the accruals model. In this model the proportions of social ties are slightly higher than in the accruals model, which is caused by a different sample.

Table 11: Descriptive Statistics Audit Fee Model

	Mean	Median	Std. Dev.
LNAF	0.7293	0.8304	1.4530
TIES (CEO)	0.2056	0.0000	0.3031
TIES (CFO)	0.1335	0.0000	0.2789
TIES (CEO/CFO)	0.1717	0.0000	0.2669
BOARDSIZE	11.4708	11.0000	3.8086
BOARDTENTURE	6.4506	6.2050	2.5049
INDEP	0.5951	0.6000	0.2142
FINEXP	0.7894	0.0000	1.5756
ACSIZE	3.8776	4.0000	1.5755
CEOCHAIR	0.2654	0.0000	0.4417
BIG4	0.9810	1.0000	0.1364
LNA	18.0865	18.0394	1.5285
LDTDA	0.2215	0.1999	0.1947
MTB	3.7530	0.1413	38.8517
SALESGR	0.7289	0.0516	0.2853
LOSS	0.1596	0.0000	0.3663

Table 12: Audit Fee Model (Dependent Variable = LNAF)

		CEO	CFO	CEO/CFO
TIES	-	-0.283^{+}		
		(0.146)		
TIES	-		-0.325*	
			(0.160)	
TIES	-			-0.367*
				(0.173)
BOARDSIZE	?	-0.0114	-0.0131	-0.0122
		(0.0159)	(0.0157)	(0.0158)
BOARDTENTURE	?	-0.00284	-0.00575	-0.00524
		(0.0182)	(0.0183)	(0.0182)
INDEP	+	0.228	0.204	0.217
		(0.230)	(0.230)	(0.230)
FINEXP	+	0.367	0.400	0.380
		(0.255)	(0.255)	(0.255)
ACSIZE	?	0.0107	0.0105	0.0106
		(0.0275)	(0.0273)	(0.0273)
CEOCHAIR	-	0.0478	0.0255	0.0324
		(0.0955)	(0.0938)	(0.0945)
BIG4	+	1.364*	1.368*	1.361*
		(0.583)	(0.590)	(0.584)
LNA	+	0.874***	0.874***	0.874***
		(0.0500)	(0.0500)	(0.0500)
LDTDA	?	-0.289	-0.292^{+}	-0.281
		(0.176)	(0.177)	(0.176)
MTB	?	-0.000983*	-0.000942*	-0.000974*
		(0.000417)	(0.000414)	(0.000409)
SALESGR	?	-0.174**	-0.176**	-0.175**
		(0.0597)	(0.0594)	(0.0593)
LOSS	?	0.280**	0.280**	0.279**
		(0.0929)	(0.0924)	(0.0926)
Intercept		-16.56***	-16.51***	-16.50***
		(1.112)	(1.122)	(1.113)
Year dummies		Yes	Yes	Yes
Industry dummies		Yes	Yes	Yes
Observations		1211	1211	1211
Adjusted R^2		0.778	0.778	0.779
F		29.22	28.89	29.71

Standard errors in parentheses
$^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results in Table 12 show that the proportion of social ties between the CEO and audit committee members has a negative effect on the amount of audit fees. The result is significant at 10%. Social ties between the CFO and audit committee members has a negative association with the amount of audit fees and is significant at a 5%-level, therefore H2 is not rejected. The proportion of social ties between the CEO/CFO and audit committee also shows a negative effect and is significant at a 5%-level, therefore H3 is not rejected. The results indicate that CFO-audit committee ties have a more detrimental effect on the amount of audit fees than

CEO-audit committee ties, because the coefficient of CFO-audit committee ties is bigger in absolute terms. Furthermore, the CEO social ties are only significant at a 10% level, whereas the CFO social ties are significant at a 5% level. In conclusion, as the coefficient of the CFO is bigger in absolute terms and more significant, H4 cannot be rejected. The combined measure of CEO and CFO social ties shows enhanced negative effect on the amount of audit fees, which confirms the expectation that an increase in social ties decreases the audit committee's monitoring. The results of this analysis are also consistent with prior research (Bruynseels & Cardinaels, 2014). An increase in social ties reduces the audit committee's monitoring, because the audit committee purchase less (thorough) audit service from the auditor. Other variables such as BIG4, LNA, MTB, SALESGR and LOSS are also significant in the audit fees analysis. A BIG 4 auditor is positive related with fees paid for audit services. Furthermore, larger firms (LNA, MTB) and a net income loss in the current or previous year are associated with higher audit fees. The results for the control variables are consistent with prior research on audit fees and social ties (Abbott et al., 2003; Bruynseels & Cardinaels, 2014; Davis et al., 1993; DeFond, Raghunandan, & Subramanyam, 2002).

The adjusted R-squared shows that the explanatory power of model is high. On average 78% of the variance of dependent variable can be explained through the independent variables. The correlations among the independent variables are lower than 0.410 (see Table 16 in the appendix). A VIF test is conducted to check for multicollinearity. The average VIF score is 1.91 and no variable has a higher VIF than 4.08, therefore no multicollinearity is present.

The results of the accruals model show no significant relation between social ties and earnings management, there is possibly no relation between social ties and the quality of financial oversight. On the another hand, the audit fee model indicates that social ties have negative relation with on the amount of audit fees, hence social ties have a negative effect on the quality of financial oversight. In particular, the results of the accruals model are strange, because they are not consistent with prior research on the influence of board characteristics on earnings management (Bruynseels & Cardinaels, 2014; Klein, 2002a; Krishnan et al., 2011). All these papers found that social ties increased earnings management.

4.3 Robustness check

The research of Klein (2002a) shows that a minority of independent directors in the audit committee increases earnings management. In the European Union not all member states require a full independent audit committee. In the sample, about 40 percent of the audit committees are not (full) independent (see Table 6), so a large group of companies have audit committee members, who have formal ties to the company or executive management. This group of audit committee members with formal ties was excluded from the sample to measure only the impact of social ties. However, the European Union has not the same (strict) corporate governance code as the U.S., due to institutional differences. Therefore, a robustness test is conducted by including ties between non-independent audit committee members and the CEO/CFO. Based on research of Klein (2002a), a negative association is expected between non-independent audit committee members (formal or social) and the quality of financial oversight. In the robustness test at least the same relationship is expected as in the standard models, but an enhanced negative effect on quality of financial oversight is more likely. Table 7 presents the proportion of audit committee members with social or formal ties with the CEO or CFO. The total proportion of ties between audit committee members and the CEO is considerably higher than in Table 8 (15 percent). This increase can also be observed for ties with the CFO.

This robustness test is conducted for both the accruals model and the audit fee model, to test whether including formal ties will lead to similar results. The results in Table 13 show that the proportion of ties between the CEO/CFO and audit committee members have a negative association with the amount of absolute discretionary accruals. However, the results for all three models are not significant. The control variables have the same direction as in the standard accruals model and the same control variables remain significant. The adjusted R-squared also remains low of the robustness model, which indicates that the model is possibly a bad fit.

The robustness tests of the audit fee models shows similar results compared to the standard audit fee models. The same coefficient remains significant in the anticipated direction. Only the CEO-audit committee ties variable becomes significant at 5% level in this model. Moreover, the coefficients of the proportion of ties of all three model are slightly lower compared to the audit fees model with only social ties, which confirms the prediction of enhanced effect compared to the standard model. Furthermore, this model shows again that

CFO-audit committee ties are more detrimental than CEO-audit committee ties and the combined measure of CEO and CFO ties decreases the amount of audit fees even more.

Table 13: Robustness - Absolute Discretionary Accruals Models (Dependent variable = ADA)

		CEO	CFO	CEO/CFO
TIES	+	-0.00333		
		(0.00539)		
TIES	+		-0.00474	
			(0.00562)	
TIES	+			-0.00197
				(0.00752)
BOARDSIZE	?	-0.000936*	-0.000952*	-0.000948*
		(0.000458)	(0.000460)	(0.000457)
BOARDTENTURE	?	-0.000330	-0.000327	-0.000321
		(0.000679)	(0.000683)	(0.000681)
INDEP	-	-0.00880	-0.00882	-0.00861
		(0.0113)	(0.0113)	(0.0115)
FINEXP	-	0.00145	0.00189	0.00178
		(0.00819)	(0.00846)	(0.00819)
ACSIZE	?	-0.000282	-0.000240	-0.000242
		(0.000890)	(0.000883)	(0.000880)
CEOCHAIR	+	-0.00142	-0.00169	-0.00149
		(0.00313)	(0.00324)	(0.00319)
BIG4	-	-0.0137	-0.0150	-0.0135
		(0.00978)	(0.0103)	(0.00989)
LNA	-	-0.000267	-0.000294	-0.000275
		(0.00147)	(0.00146)	(0.00147)
LDTDA	+	-0.00122	-0.000536	-0.00142
		(0.0118)	(0.0118)	(0.0119)
MTB	?	-0.0000933*	-0.0000922*	-0.0000917*
		(0.0000385)	(0.0000379)	(0.0000383)
SALESGR	?	-0.00552	-0.00556	-0.00540
		(0.0109)	(0.0107)	(0.0108)
LOSS	?	0.0112**	0.0111**	0.0111**
		(0.00396)	(0.00397)	(0.00397)
Intercept		0.0664*	0.0677*	0.0656*
		(0.0292)	(0.0299)	(0.0298)
Year dummies		Yes	Yes	Yes
Industry dummies		Yes	Yes	Yes
Observations		951	951	951
Adjusted R^2		0.058	0.059	0.058
F		2.875	2.863	2.872

Standard errors in parentheses
$^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 14: Robustness - Audit Fee Models (Dependent variable = LNAF)

		CEO	CFO	CEO/CFO
TIES	-	-0.348*		
		(0.135)		
TIES	-		-0.348*	
			(0.157)	
TIES	-			-0.424*
				(0.164)
BOARDSIZE	?	-0.0140	-0.0153	-0.0152
		(0.0161)	(0.0155)	(0.0158)
BOARDTENTURE	?	-0.00317	-0.00473	-0.00483
		(0.0178)	(0.0180)	(0.0178)
INDEP	+	0.129	0.154	0.126
		(0.225)	(0.229)	(0.226)
FINEXP	+	0.351	0.392	0.365
		(0.256)	(0.254)	(0.255)
ACSIZE	?	0.00908	0.0104	0.00958
		(0.0270)	(0.0273)	(0.0271)
CEOCHAIR	-	0.0612	0.0413	0.0490
		(0.0941)	(0.0931)	(0.0929)
BIG4	+	1.338*	1.277*	1.290*
		(0.577)	(0.578)	(0.571)
LNA	+	0.874***	0.872***	0.873***
		(0.0495)	(0.0500)	(0.0497)
LDTDA	?	-0.277	-0.271	-0.262
		(0.176)	(0.175)	(0.175)
MTB	?	-0.000982*	-0.000947*	-0.000975*
		(0.000404)	(0.000411)	(0.000399)
SALESGR	?	-0.179**	-0.179**	-0.179**
		(0.0593)	(0.0603)	(0.0597)
LOSS	?	0.282**	0.279**	0.280**
		(0.0913)	(0.0923)	(0.0915)
Intercept		-16.36***	-16.31***	-16.26***
		(1.098)	(1.116)	(1.100)
Year dummies		Yes	Yes	Yes
Industry dummies		Yes	Yes	Yes
Observations		1211	1211	1211
Adjusted R^2		0.779	0.779	0.780
F		26.22	29.21	27.54

Standard errors in parentheses
$^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

5 Conclusion and discussion

This thesis investigated the influence of social ties between the CEO/CFO and the audit committee on the quality of financial oversight. Based on prior research, four hypotheses were developed that expected a negative association between social ties and the quality of financial oversight. The first hypothesis expected a negative association with CEO-audit committee social ties. The second hypothesis expected a negative association with CFO-audit committee social ties and the third hypothesis with CEO/CFO-audit committee social ties. The fourth hypothesis expected that social ties between the CFO and the audit committee decrease the quality of financial oversight to a greater extent than social ties between the CEO and the audit committee. The models provide evidence that suggests that social ties reduce the quality of financial oversight. This relation is present for social ties between the CEO and the audit committee, CFO and the audit committee and the CEO/CFO and the audit committee. The models indicate that socially connected CFOs with the audit committee decrease the quality of financial oversight to a larger extent than socially connected CEOs. Consistent with Krishnan et al. (2011), this thesis concludes that CFOs compared to CEO have often less social ties with the audit committee.

In the audit fee model a negative association between social ties and quality of financial oversight is found. This model indicates that an audit committee with social ties purchases less audit services, which results in lower levels of audit effort. This is consistent with the research of Bruynseels and Cardinaels (2014). The results of the accruals model show no significant effect of social ties on the amount of absolute discretionary accruals. In contrast, prior research has shown that social ties between the CEO and the audit committee increases earnings management (Bruynseels & Cardinaels, 2014; Hwang & Kim, 2009; Krishnan et al., 2011). An explanation for this difference is that their research is conducted in the U.S., while this research is conducted in the E.U. Moreover, this thesis covers a different time period.

This thesis has also some limitations. First of all, there are differences in institutional environment between E.U. member states. The 8th Company Law Directive of European Union harmonizes the requirements of the audit committee in the E.U. member states, but there are still differences in audit committee requirements. Some E.U. countries have a stricter corporate governance code than other countries. Also, there is a difference in corporate governance structure between the E.U. member states. The U.K. for example has an Anglo-

Saxon model and Germany has a Rhenish model. The Anglo-Saxon model uses a one-tier board, while the Rhenish model uses a two-tier board. This difference in board structure requires another way in communicating between the executive board members and the supervisory board members, because in a two-tier board supervisory board members meet separately. The separation of meetings possibly leads to a difference in social connectedness between supervisory board members and executive board members, as the board members see each other less. Studies with U.S. firms do not face these problems in the institutional environment, because the federal law harmonizes the corporate governance structure and therefore all U.S. companies use one-tier boards. Secondly, due to missing data, the data sample only consists of 245 unique firms, while the initial data sample consisted of 439 European firms. Extensive missing data has caused deletion of companies out of the sample. Lastly, empirical earnings management studies, like the accruals model in this thesis, face methodological problems, because earnings management is not directly observable in the financial reporting statements. Therefore, earnings management models have to make assumptions about the nature of earnings management (Scott, 2012, pp. 444-473). Moreover, despite of (imperfect) removal of nondiscretionary accruals, the discretionary accruals model does not necessarily reflect earnings management, because the amount of discretionary accruals is affected by economic environment. The European debt crisis could lead to an underestimation of the amount of discretionary accruals (Dechow et al., 1995; Hribar & Nichols, 2007).

In conclusion, the results of this thesis show that social ties between the CEO (and CFO) and audit committee have a negative influence on the quality of financial oversight. These findings are relevant for investors, regulators and the public, because it is likely that audit committee members do not serve in the interest of the public, but in the interest of management when they are socially tied to the management. A suggestion for future research is to re-perform this research in groups of firms in the same institutional environment. It could be that an institutional environment influences the strength of the social tie. Another suggestion is to use another measures for earnings management, such as a ‘‘Meet or Beat the Analyst Forecast’’ analysis or ‘‘Avoid a Loss’’ analysis. Possibly these measure can find a relation between social and earnings management

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7 Appendix

7.1 Correlation Matrix

Table 15: Correlation Matrix - Accruals

	TIES (CEO)	TIES (CFO)	TIES (CEO/CFO)	BOARDSIZE	BOARDTENTURE	INDEP	FINEXP	ACSIZE	CEOCHAIR	BIG4	LNA	LDTDA	MTB	SALESGR	LOSS
TIES (CEO)	1.0000														
TIES (CFO)	0.4523*	1.0000													
TIES (CEO/CFO)	0.8745*	0.8145*	1.0000												
BOARDSIZE	0.0446	0.0056	0.0233	1.0000											
BOARDTENTURE	-0.0009	-0.1252*	-0.0610	0.1228*	1.0000										
INDEP	0.0042	0.0256	0.0204	-0.5763*	-0.1609*	1.0000									
FINEXP	-0.1054*	0.0240	-0.0583	0.0899*	0.0509	0.0050	1.0000								
ACSIZE	-0.0319	-0.0549	-0.0547	0.4688*	0.0689*	-0.1704*	0.0493	1.0000							
CEOCHAIR	-0.0052	-0.1519*	-0.0869*	0.3283*	0.1199*	-0.2839*	0.0469	0.2679*	1.0000						
BIG4	-0.1390	-0.0003	-0.0077	-0.0546	-0.2491*	0.1674*	-0.0480	0.0154	-0.1027*	1.0000					
LNA	0.0441	0.0412	0.0378	0.5487	0.0490	-0.1917*	0.1680*	0.2452*	0.2022*	0.0629*	1.0000				
LDTDA	0.1340*	0.1903*	0.1768*	0.0676	-0.1194*	-0.1245*	-0.0333	-0.0418	0.0622	0.0207	0.1374*	1.0000			
MTB	-0.0468	-0.0370	-0.0495	0.0096	0.0179	-0.0174	-0.0326	0.0300	0.0243	0.0131	0.0610	0.0286	1.0000		
SALESGR	-0.0214	-0.0188	-0.0226	-0.0827*	-0.0603	0.0063	-0.0147	-0.0058	0.0275	0.0275	-0.1194*	0.0803*	0.0215	1.0000	
LOSS	-0.0194	-0.0160	-0.0199	-0.0369	-0.1507*	-0.0458	-0.0397	0.0548	0.0067	0.0067	-0.1818*	-0.0333	0.0583	0.0871*	1.0000

* $p < 0.05$

Table 16: Correlation Matrix - Audit Fees

	TIES (CEO)	TIES (CFO)	TIES (CEO/CFO)	BOARDSIZE	BOARDTENTURE	INDEP	FINEXP	ACSIZE	CEOCHAIR	BIG4	LNA	LDTDA	MTB	SALESGR	LOSS
TIES (CEO)	1.0000														
TIES (CFO)	0.6246*	1.0000													
TIES (CEO/CFO)	0.9066*	0.8874*	1.0000												
BOARDSIZE	0.0588*	0.0057	0.0314	1.0000											
BOARDTENTURE	-0.0801*	-0.1622*	-0.1282*	0.0253	1.0000										
INDEP	0.0268	0.0433	0.0381	-0.4035*	-0.1609*	1.0000									
FINEXP	0.0192	0.0524	0.0346	0.0874*	0.1201*	0.0794*	1.0000								
ACSIZE	0.0234	-0.0371	-0.0078	0.4101*	0.0082	-0.0381	0.0456	1.0000							
CEOCHAIR	-0.0424	-0.1571*	-0.1078*	0.2731*	0.0888*	-0.2314*	0.1029*	0.2662*	1.0000						
BIG4	0.0091	0.0293	0.0215	-0.0437	-0.1701*	0.1459*	-0.0208	0.0149	-0.0739*	1.0000					
LNA	0.1193*	0.1174*	0.1220*	0.4754	-0.0429	-0.0222	0.1916*	0.2121*	0.1297*	0.1396*	1.0000				
LDTDA	0.1012*	0.1331*	0.1249*	0.1348*	-0.1094*	-0.1128	0.0280	0.0255	0.0312	0.0649*	0.1425*	1.0000			
MTB	-0.0332	-0.0226	-0.0315	0.1103*	0.0023	-0.0769*	-0.0187	0.1349*	0.0856*	0.0126	0.0755*	0.0057	1.0000		
SALESGR	0.0167	0.0016	0.0104	-0.0508	0.0393	-0.0532	-0.0242	-0.0668*	-0.0291	0.0355	-0.0054	0.1617*	-0.0108	1.0000	
LOSS	-0.0011	0.0104	0.0057	-0.0204	-0.1329*	0.0005	-0.0272	0.0259	0.0019	-0.0185	-0.0889*	0.0055	-0.0040	-0.0638*	1.0000

* $p < 0.05$

7.2 Institutional Environment

Regulators have tightened the independence requirements for audit committee members in past years. In the U.S., the Sarbanes-Oxley Act of 2002 increased the audit committee's responsibilities and authority and raised the membership requirements for the audit committee. The SOX required that the audit committee should only be composed of independent outside non-executive directors. Independence is defined as no financial or familial ties to executive management or the firm itself. In addition, the section 407 of SOX required disclosure of financial expert on the audit committee. A financial expert is a person with experience in preparing or auditing financial statement, such as controller or auditor. If a financial expert is not present on the audit committee, the firm must disclose why ("Sarbanes-Oxley Act (SOX) of 2002," 2002). At first sight the measure of the SOX is not relevant for this study, because European firms are analyzed and not Americans. However, large international orientated European firms have frequently a cross-listing on U.S. indices, the SOX requires foreign companies with cross-listing in the U.S. to comply with the act (Litvak, 2007). Therefore, regulatory requirement of SOX are relevant for this study, because large European firms comply to this rules.

In contract with the U.S., in the European Union (E.U.) there is no single European corporate governance code or law. The European Commission issues Company Law Directive to harmonize company laws in the member states, but there is (still) no single European Company Law for Corporate Governance. In analysis of Collier & Zaman (2005) on corporate governance codes by EU member states, they found a degree of convergence towards to Anglo-Saxon model of audit committee structure and independence. Nevertheless, there is no consistent recommend audit committee structure and role among EU member states. To converge European company laws and to enhance trust in financial reporting process, the European Commission passed 8th Company Law Directive on Statutory Audit[4]. The 8th Company Law Directive introduced similar regulatory requirement for audit committees as the SOX did in the U.S., but these requirements are not exactly the same. Article 41 of 8th Company Law Directive sets independence requirements for the audit committees, but it only requires one member of the audit committee to be independent. Furthermore, article 41

[4] Council Directive 2006/43/EC on statutory audits of annual accounts and consolidated accounts [2006] OJ L157/87

requires competence in accounting and/or auditing of at least one member of the audit committee. This requirement is similar to section 407 of SOX.