Do friends matter?

The relationship between social ties and financial reporting quality

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Abstract

The independence of the audit committee is important to ensure the quality of its functioning and therefore the financial reporting quality of the firm. The disclosure of accurate and reliable financial information is of critical importance for the functioning of the financial markets. For that reason, the European Parliament has issued a proposal regarding audit reform for the European Union to ensure the independence of the audit committee in EU firms. This proposal does not contain any requirements surrounding the social ties that might exist between audit committee members and senior management. The goal of this paper is to provide more insight in the relation between social ties between senior management and the audit committee and the financial reporting quality and what the effect of culture is on this relationship, in order to strengthen or weaken the argument for the regulation surrounding the independence of the audit committee. The research question therefore is: What is the effect of social ties between the CEO, the CFO and the audit committee on a firm’s financial reporting quality?

To answer this question a quantitative research is carried out. Different types of social ties are regressed against four proxies of financial reporting quality. The social ties are based on former employment, education and non-professional activities. Financial reporting quality is measured using proxies based on discretionary accruals and unexplained audit fees. A sample of publicly listed European firms is used. Furthermore, the effect of culture on the central relationship is examined by classifying the countries based on their level of individualism.

The findings of this study show that social ties have a positive effect on the financial reporting quality. Friendship ties have a bigger positive effect on the financial reporting quality than advice ties. Furthermore, in countries characterized more by individualism the financial reporting quality is better compared to countries characterized more by collectivism. Thus, this study does not provide an argument for the inclusion of requirements against the social ties that audit committee members might have with senior management. If anything, these ties should be encouraged.
It is important that firms disclose accurate and reliable financial information. Investors need this information to make informed investment decisions. Liquidity within financial markets is dependent on the investor confidence in the reliability of corporate financial information (Securities and Exchange Commission, 2003). To ensure this disclosure of accurate and reliable financial information, publicly listed firms do not only have a board of directors but also a sub-committee which focuses solely on the quality of financial reporting. This committee is named the audit committee. Management of publicly listed firms may face pressures to satisfy market expectations. These pressures can influence their decision making regarding the reporting of financial information about the firm. Management might try to satisfy market expectations instead of giving an accurate picture of the financial position of the company. Audit committees act as a control mechanism against these market pressures in order to align corporate interest with that of the shareholders and are therefore supposed to be independent.

In order to enforce this independence, the Sarbanes-Oxley act (SOX) was passed in 2004 in the United Stated (Securities and Exchange Commission, 2003). SOX contains criteria for the independence and the competence of the members of the audit committee. As a result of SOX, audit committees of firms falling under this regulation cannot consist solely out of dependent members; non-dependent members have to be included. In April of 2014 the European Parliament and the Council of Ministers followed suit by reaching an agreement on the proposals regarding audit reform of the European Commission (European Parliament and Council of the European Union, 2014a). The proposal contains requirements for publicly-listed firms to promote the objectivity of the auditing process and to avoid conflicts of interests and rules on the supervision of compliance of by auditors and audit firms. Similarly to SOX, the proposal states that the majority of the audit committee should be independent. These independent members of a firm’s audit committee may not be affiliated with this firm or any subsidiary of this firm apart from his or her capacity as a member of the committee. The proposal also states that at least one member of the committee should have competence in auditing of financial reports statements and/or accounting. Regulation surrounding this proposal will be applied from the 17th of June 2016 (European Parliament and Council of the European Union, 2014b).
However, this does not mean that the committees are completely independent. Social ties between audit committee members and senior management are not prohibited but they can influence the behavior and the functioning of the audit committee. For example, a member of the audit committee and a manager can be old classmates. This tie might influence the behavior and the judgment of the committee member. One of the major tasks of the audit committee is to ensure the quality of the financial reporting. In order to do this, the committee has to collaborate with the Chief Executive Officer (CEO) and the Chief Financial Officer (CFO). Social ties between the members of the committee and the CEO and the CFO might influence the functioning of the committee since the members will not be fully independent from management anymore. The committee member may favor the interests of the CEO or CFO over the interests of the firm when instrumental decisions regarding the financial reporting have to be made. This also may have an influence on the quality of the reporting. The goal of this paper is to provide more insight in the relation between social ties between senior management and the audit committee and the financial reporting quality and what the effect of culture is on this relationship, in order to strengthen or weaken the argument for the regulation surrounding the independence of the audit committee. The research question therefore is:

**What is the effect of social ties between the CEO, the CFO and the audit committee on a firm’s financial reporting quality?**

The focus of this study is on the social ties between the audit committee and the CEO and the CFO and the influence that culture has on this relationship. This study is scientifically relevant because of the focus on the audit committee instead of the board of directors, the focus on both the CEO and the CFO, the focus on both ‘advice’ and ‘friendship’ networks, and because of its international approach. First, the current literature on social ties mostly focuses on the social ties between the board of directors and the CEO (e.g. Westphal, 1999, Hwang and Kim, 2009, Krishnan, Raman, Yang and Yu, 2011). The findings of research on board of director-CEO relations cannot be directly applied to research on the relationship between audit committees and the CEO (Brennan and Kirwan, 2015). By focusing on the audit committee this study fills this gap in the literature. Second, calls have been made to not just examine social ties related to the CEO but to also include the social ties related to the CFO (Feng, Ge, Luo and Shevlin, 2011, Bruynseels and Cardinaels, 2014). Since this study
examines the financial reporting quality of a firm it makes sense to focus on the audit committee and both the CEO and the CFO since they have the most influence on the financial reporting process. Third, when looking at the research on social ties most research focus on so called ‘advice networks’, which are social ties based on former employment and education (e.g. Hwang and Kim, 2009, Guan, Su, Wu and Yang, 2016). These ties are mostly professional ties. However, this approach leaves out the more personal ties that might exist between individuals. This study therefore also examines social ties based on ‘friendship networks’, which are social ties that originate outside of the organization on a more personal level such as leisure activities. Fourth, this study is also scientifically relevant because it takes an international approach. Most research on social ties focuses on one country and this is usually the US (e.g. Carcello, Neal, Palmrose and Scholz, 2011, Bruynseels and Cardinaels, 2014). This study examines multiple countries in Europe by examining the effects of culture, in the form of the level of individualism, on the relationship between social ties and financial reporting quality.

The findings of this study are also practically relevant. Firms can use the findings to improve their financial reporting quality. If the board of directors knows that social ties between the audit committee and the CEO and the CFO is harmful for the quality of the financial reports they might decide to intervene and make sure that the audit committee becomes fully independent. This study is further relevant for policy makers. Policy makers can use the insight of this study to adapt the current regulation to ensure that audit committees become fully independent. So the definition of what an independent audit committee is can be sharpened. This is especially relevant since regulation based on the earlier mentioned proposal regarding the audit reform made by the European Parliament goes into effect in 2016 (European Parliament and Council of the European Union, 2014b). This study is also relevant for shareholders since they can become more aware of these social ties and base their judgment on them. For example, if they know that the audit committee is not fully independent they can take the reporting of the committee with a grain of salt. Also, they might decide to become more involved in the selection of the committee members.
The structure of this paper is as follows. The second chapter contains the theoretical framework in which the effect of social ties on financial reporting quality is discussed, what the effect of different types of social ties is and whether cross-country differences exist. In the third chapter the research method is discussed. The results of the analyses and robustness checks are presented in chapter four. Chapter five contains the conclusions and a discussion of the results and the limitations of this study. After chapter 5 the appendices are presented.
Chapter 2

This chapter contains the theoretical framework. First the main subjects of this study - the audit committee, the CEO and the CFO- are discussed. After that, research on social ties between these subjects is discussed and the first set of hypotheses is provided. In the next paragraph different types of social ties are illustrated and the second set of hypotheses is provided. In the final paragraph the influence of culture, in the form of the level of individualism, is discussed and the third set of hypotheses is provided.

The Audit Committee, the CEO and the CFO

The research subjects of this study are the audit committee, the CEO and the CFO. The tasks these three fulfill in a company are related to each other. The main task of the audit committee is to oversee the firm’s financial reporting process (Brennan and Kirwan, 2015). The committee meets with the outside auditors and the managers to review the financial statements, the audit process and the internal controls of the firm (Klein, 2002) and therefore has an instrumental role in ensuring the financial reporting quality of the firm. The committee is not only in place to prevent fraudulent accounting statements but also to resolve conflicts between the auditor and management for instance about the application of the accounting standards (Antle and Nalebuff, 1991, Klein, 2002). The audit committee is a subcommittee of the board of directors. The main task of the board of directors is to provide advice and counsel to senior management, to serve as some sort of discipline and to act in crisis situations (Mace, 1971). The audit committee is supposed to be independent of senior management but is also supposed to cooperate with them.

Two of the most important members of senior management are the CEO and the CFO. The CEO of a firm is the highest ranked executive and is responsible for the development and implementation of the strategy, managing the operations and resources of the firm and he or she acts as the main point of communication between the board of directors and the firm’s operations. The CFO is responsible for the oversight and the management of the firm’s past, current and future finances. He or she is responsible for presenting and reporting the financial information of the firm, for the current financial condition of the firm and for the financial strategy of the firm. Both the CEO and the CFO are of high importance for the functioning of the firm.
The audit committee, CEO and CFO all have an influence on the financial reporting quality. The audit committee influences the financial reporting quality since its main task is to oversee the financial reporting quality. The CEO has in influence on the financial reporting quality in his or her role of managing the operation and resources of the firm. Furthermore, the CEO might have a hand in selection of the audit committee members (Carcello, Neal et al., 2011) so he or she also indirectly affects the reporting quality. Most research on financial reporting quality focuses on the influence that the CEO has (Habib and Hoissain, 2013) as opposed to the CFO or other managers. A CFO has a big influence on the financial reporting because of his or her oversight function of the firm’s finances and because he or she collaborates with the audit committee to ensure its quality (Beattie, Fearnley and Hines, 2012). Furthermore, both the CFO and the audit committee have an influence on the appointment of the external auditor and the audit fees (Beck and Mauldin, 2014) which influences financial reporting quality. Previous research has shown that CFOs have a significant influence over the firm’s financial reporting quality. For example, Geiger and North (2006) find a significant negative relationship between the appointment of a new CFO and the discretionary accruals, a widely used proxy of financial reporting quality, even when controlling for the influence of the CEO. In conclusion, to ensure the quality of the financial reporting, the audit committee has to collaborate with both the CEO and the CFO of the firm.

Social Ties

Social ties might have an influence on the collaboration between the audit committee, the CEO and the CFO. Social ties are shared qualities and experiences between two individuals (Hwang and Kim, 2009). These are not professional ties, but instead ties formed outside of the board room. An example of a social tie is a connection between two individuals because they attended the same university. Ties like this can influence the decision making process of the two parties that are involved. For example, Chen (2014) finds that supervisors are more willing to give a favorable evaluation of the performance of their subordinates regardless of their actual performance if strong social ties between the supervisor and subordinate exist. In the case of this study, the audit committee is supposed to be independent of senior management. If social ties exist between the committee members and the CEO or the CFO this independence can be impaired. If a member and a
CEOs/CFOs are tied on a social level, the member’s concern for the CEO/CFO might cloud his or her objectivity regarding the monitoring and the disciplining of the CEO/CFO. He or she might start favoring management over the interests of the auditor and the shareholders. The social ties therefore can have a negative influence on the effectiveness of the collaboration between the audit committee, the CEO and the CFO.

Research shows that social ties between audit committees and senior management exist. Using in-depth interviews of 42 individuals who actively serve on US public company audit committees Beasley, Carcello, Hermanson and Neal (2009) attempt to provide a detailed insight into the audit committee process. On the subject of the selection of the audit committee nominees they find that 40 percent of the committee members have significant previous contact with executive management before being approached to serve on the committee. Furthermore, 33 percent of the committee members has personal ties to management or other board members. These personal ties range from being a personal friend of the CEO to their kids going to the same school. Mace (1971) confirms these findings. In his qualitative field research on the selection of outside directors he finds that some executives choose their directors based on their friendship ties. Quoting one CEO: “They are really friends of mine, these guys, these outside directors. They are people I selected to be on the board” (Mace, 1971, p. 95). Thus, in some firms social ties between the audit committee and the CEO/CFO exist.

When looking at research on the effect of these social ties a gap in the literature is visible. Not that much research has been done on the social ties between the audit committee and the CEO or the CFO. Most research focuses on social ties between the board of directors and the CEO or the CFO. For example, Hwang and Kim (2009) study the social ties between the board of directors and the CEO of a sample of Fortune 100 firms. From an agency perspective, they argue that the audit committee should be independent from senior management to be able to act as a monitoring device for the shareholders (Jensen and Meckling, 1976). In this case independence means that the incentives of the members of the committee should be in line with the shareholders and not with senior management. Social ties between senior management and the members of the audit committee can influence this independence and therefore the functioning of the committee as a whole. Hwang and Kim (2009) find that socially dependent boards award a significantly higher level of
compensation to senior management, they exhibit weaker pay-performance sensitivity and they exhibit weaker turnover performance sensitivity compared to socially independent boards. So if social ties between the CEO or the CFO and the board of directors exist, the board is more likely to award a high compensation to the CEO and the CFO regardless of their actual performance. Rose, Rose, Strand and Mazza (2014) have similar findings when using an experimental design to examine the social ties between the CEO and the board of directors in a sample of US firms. They find that when friendship ties between the CEO and the board of directors exists, directors are more willing to approve reductions of research and development (R&D) expenses that CEO’s use to meet their bonus target. So the board of directors is more willing to let the CEO manage their earnings to meet a certain earnings objective. Krishnan, Raman, Yang and Yu (2011) examine the relation between the social ties between the CFO, CEO and the board of directors and the occurrence of earnings management between 2000 and 2007 to explore the impact of the Sarbanes-Oxley act. They find that CFOs and CEOs picked more directors that were socially connected with them after the SOX act was implemented. Furthermore, they find a positive relation between CFO/CEO-board social ties and the occurrence of earnings management. These studies show that social ties between senior management and the board of directors lead to unjust compensation and the managing of earnings. Thus, social ties negatively affect the functioning of the board of directors.

On the other hand, other studies have found that the social ties do not necessarily have a negative effect on the functioning of the board. Westphal (1999) examines the social ties between the board of directors and the CEO in a sample of US industrial and service industry firms. He finds that social ties increase board involvement by encouraging collaboration between top managers and outside directors in strategic decision making. The social ties actually improve the functioning of the board since collaboration and communication becomes easier. Hoitash (2011) has similar findings. Just like Hwang and Kim (2009) he finds that social ties between the board and the CEO increases the level of managerial compensation. However, he also finds that the financial reporting quality is higher for firms in which social ties between senior management and an independent director exist. These findings are contrary to the earlier mentioned study performed by Krishnan, Raman, Yang and Yu (2011), who found that social ties actually lowered the financial reporting quality. A
reason for this is that the studies measure financial reporting quality in a different way. Hoitash (2011) uses two proxies based on the likelihood of material weaknesses in internal control and the likelihood of financial restatements. Krishnan, Raman, Yang and Yu (2011) use a proxy for earnings management based on analysts’ forecasts and scaled earnings. Furthermore, the two studies also measure social ties differently. Hoitash (2011) measures a social tie by looking at the other boards the internal and external directors served on. If they served on the same board of at least one additional company a social tie between the two exists. Krishnan, Raman, Yang and Yu (2011) use a more elaborated method to measure social ties between the CEO/CFO and the board of directors. Besides looking at prior or current employment they also take into account the educational link between the directors and other activities such as membership to a golf club or a charity organization. These two differences might explain the differences findings between the two studies. In conclusion, some studies have found that social ties also have a positive effect on the quality of the functioning of the board of directors.

This study goes beyond looking at just the board of directors, by specifically examining the audit committee. As mentioned, not much research has been done on the social ties between the audit committee and the CEO/CFO of the firm. Two studies are worth mentioning. Using a sample of US firms, Carcello, Neal et. al. (2011) find that when CEOs had a hand in the selection of the members of the audit committee, the number of financial restatements was higher than when the CEO did not have a hand in the selection. The audit committees in the sample fulfilled all regulatory requirements of independence. These findings do not automatically say that CEOs select their friends in order to create a passive audit committee, but they do show that the financial reporting quality is negatively affected when the CEO has a say in the selection process. Bruynseels and Cardinal (2014) examine the effect of social ties between the CEO and the members of the audit committee on the financial reporting quality of the firm. Using a sample of US publicly listed firms they find a negative relation between the independence of the audit committee and the quality of the financial reporting. The financial reporting quality is measured by looking at the occurrence of earnings management and the unexplained audit fees. These studies show that an audit committee member might be more passive in its oversight function if social ties exist between them and a member of senior management.
In conclusion, research on the social ties between the board and the CEO and CFO has shown that these social ties can both have a positive and a negative influence on the functioning of the board. The social ties can influence the independence of the board which is detrimental to its effectiveness. On the other hand, social ties might also have a positive effect since it increase board collaboration and communication. The research on the social ties between the audit committee and senior management points at a negative effect on the functioning of the committee. Since the audit committee directly influences the financial reporting quality, it is to be expected that the social ties have a negative effect on the financial reporting quality of the firm. Based on the previous literature, the first set of hypotheses is:

*H1a: If the proportion of social ties between the CEO and the audit committee increases then the financial reporting quality of the firm is negatively affected.*

*H1b: If the proportion of social ties between the CFO and the audit committee increases then the financial reporting quality of the firm is negatively affected.*

### Advice and Friendship Networks

In this paragraph the different types of social ties and their effects on financial reporting quality are discussed. As mentioned, social ties are shared qualities and experiences between two individuals (Hwang and Kim, 2009). Different types of social ties exist. A distinction can be made in between two types of social ties. There are ties based on advice networks and ties based on friendship networks. Social ties based on advice networks are based on current employment, but also through former employment and education. An advice network is an individual's network through which he or she obtains professional advice (Gibbons, 2004). Individuals exchange information, advice and opportunities through these networks. Information on work related issues is exchanged between current coworkers. Former coworkers can consult each other for their competence and expertise in matters related to work (Bruynseels and Cardinaels, 2014). Opportunities on, for example, new areas of interest or job opportunities can be exchanged between former classmates. Social ties based on friendship network originate outside of the organization on a more personal level. These social ties are formed through non-professional activities such as
leisure clubs or charity organizations. Two individuals can have social ties based on both advice and friendship networks, the two types are not mutually exclusive.

The two forms might have a different effect on financial reporting quality because of the type of trust they are based on (Saint-Charles and Mongeau, 2009). Advice networks are based on cognitive trust. When an individual and an advisor have a relationship based on cognitive trust the individual has confidence in the advisor because of his or her expertise and ability (Johnson and Grayson, 2005). Friendship networks are based on affective trust. The individual has confidence in a partner based on feelings for the partner as a person rather than an advisor (Johnson and Grayson, 2005). Affective trust is based on emotions towards the partner and not on the confidence of the partner’s expertise or ability. If the emotional band between two individuals deepens enough, the trust in each other might venture beyond what is justified in the situation. If an audit committee member and the CFO of a firm have an emotional bond, the audit committee member might be more forgiving to the CFO’s action than what is rationally justified. Since social ties based on advice networks is based on the expertise and ability of the partner, the individual is more likely to judge the partner on a rational level if they are connected through an advice network. Furthermore, controversial information is more often discussed in friendship networks since the affective trust between among friends facilitates discussion and acceptance of this information (Gibbons, 2004). For example, if the CFO wants to use aggressive accounting methods in order to manage earnings to achieve a certain earnings objective, the audit committee member that has ties to the CFO based on an advice network will likely disapprove of the decision unless the CFO has a valid (rational) explanation for the use of these methods. The audit committee member that has ties to the CFO based on friendship might be more willing to approve of the decision either because the member is less critical of the CFO and therefore does not notice the intentions of the CFO or because the member allows the CFO to manage their earnings because their loyalties are with the CFO and not with the firm at large. From a theoretical viewpoint, social ties based on advice and friendship networks are based on different types of trust which might have an effect on the financial reporting quality of the firm.

The effect of the types of social ties has been studied before. Bruynseels and Cardinaels (2014) examine the effect of advice and friendship ties between the members of the audit
committee and the CEO on the functioning of the audit committee. They define ties based on advice networks as a CEO-audit committee connection in the form of past or present employment and education. Ties based on friendship networks are defined as CEO connection in the form of present or past membership of the same charity, leisure club, country club, or other non-profit association. The researchers find that friendship ties between the CEO and the audit committee has a negative effect on the purchase of audit services by the firm and a positive effect on the occurrence of earnings management. On the other hand, these relations are not found for social ties that are formed through advice networks. Thus friendship ties are found to be damaging to the oversight quality of the board and social ties based on advice networks are not.

Following this research and reasoning it is expected that friendship ties between the CEO/CFO and the audit committee members have a larger negative effect on financial reporting quality compared to social ties based on advice networks. The second set of hypotheses is:

\[ H2a: \text{If social ties based on a friendship networks exists between the CEO and the audit committee then the financial reporting quality will be affected more negatively than if these social ties are based on advice networks.} \]

\[ H2b: \text{If social ties based on a friendship networks exists between the CFO and the audit committee then the financial reporting quality will be affected more negatively than if these social ties are based on advice networks.} \]

**Individualism vs. Collectivism**

In this paragraph the effects of culture, in the form of the level of individualism, on the relationship between social ties and financial reporting quality are discussed. The relation between CEO, CFO and the audit committee might differ among countries. Hofstede’s cultural dimensions theory (1980) can be used to explain these cross-country differences. Hofstede makes a distinction between societies based on cultural characteristics. These cultural characteristics affect the values of members of the societies which in turn affects their behavior. Six dimensions are distinguished, namely: power distance, uncertainty avoidance, masculinity vs. femininity, long vs. short term orientation, indulgence vs. restraint and individualism vs. collectivism. In this study, we focus on the latter dimension.
The distinction between individualism and collectivism is based on how the individual relates to the collectivity (Hofstede, Hofstede and Minkov, 2010). In individualistic societies individuals have loose ties with each other. They are expected to look after themselves and their immediate family and friends. The ‘I’ is emphasized over the ‘We’. In individualistic societies, members are less emotionally involved with the organization. The individual is more important than the collective. Members of the organization are expected to act in their own interest instead of that of the organization at large. It is the organization’s responsibility to align the interests of its members with the interest of the organization at large. For the members of the organization their task prevails over the relationship with the organization (Hofstede, 1991). They are committed to the relationship as long as this is in line with their goal. The relationship between member and organization is characterized by ‘calculative’ involvement in which the two parties see the relationships with each other as a means to an end (Etzioni, 1975).

In collectivist societies individuals have strong ties not only with their immediate family and friends but also with extended family and acquaintances. From birth onward, individuals are integrated into strong and cohesive in-groups which protect them in exchange for unquestioned loyalty (Hofstede, Hofstede et al., 2010). The ‘We’ is emphasized over the ‘I’. In organizations in collectivist societies, members are more emotionally dependent on their organizations and they expect the organization to take responsibility for their members. The workplace becomes the in-group of the members of the organization; everything outside of the workplace becomes the out-group. Members act in accordance to the interest of the in-group, which may or may not coincide with their own interests. For the members of the organization the relationship with the organization prevails over their task (Hofstede, 1991). The relationship between member and organization is characterized by ‘moral’ involvement in which both parties do not see the relationships with each other as a means but more as an end (Etzioni, 1975).

The distinctions between moral and calculative involvement can be applied to this study. In both individualistic and collectivist societies the CEO, CFO and the audit committee members occupy important positions in the organization. In individualistic societies they are more likely to form relationship with each other in a calculative manner which means that they will be committed to the relationship as long as it is in line with their personal goal. In
collectivistic societies these relations are more likely to be based on moral involvement which means that they see the relation as an end and not as a means. Furthermore, they are more emotionally dependent on the organization and they would consider it to be part of their in-group. In individualistic societies in-groups do not exist so the CEO, CFO and the audit committee members are expected to look out for themselves.

In collectivistic societies audit committee members consider the organization and its members to be part of their in-group. Therefore they will be loyal to its other members, such as the CEO and the CFO, compared to individuals or group outside of the in-group, such as the shareholders and the external auditor. On the other hand, audit members in individualistic societies are more likely to be loyal to shareholders and external auditors since this is more beneficial for their own position. If the shareholders are not happy with the performance of the audit member, he or she might lose their position. Social ties are therefore expected to have a bigger effect on the behavior of the members of the organization in collectivistic societies since individuals in these societies are expected to act in the best interest of the group and not of the individual. If the CEO or the CFO wants to make an opportunistic decision that influences the financial reporting quality negatively, an audit committee member might not immediately reject the decision if he or she considers the CEO or the CFO to be part of their in-group. The third set of hypotheses therefore is:

**H3a:** If a firm resides in a country that is characterized by collectivism then the social ties between the audit committee and the CEO are more likely to negatively affect the financial reporting quality compared to a firm that is from a country that is characterized by individualism.

**H3b:** If a firm resides in a country that is characterized by collectivism then the social ties between the audit committee and the CFO are more likely to negatively affect the financial reporting quality compared to a firm that is from a country that is characterized by individualism.
Chapter 3

In this chapter the research method is discussed. First the sample and data collection are elaborated on. After that the measures of the dependent, independent and control variables are discussed. Finally the models are presented.

Sample and Data Collection

This study takes a cross-country approach. The sample consists of a set of 733 publicly listed firms from 19 European countries in the year 2015. The choice for this sample is motivated by availability of accounting reports, cross-country financial regulation homogeneity, and availability of Hofstede’s division of countries. First, we select publicly listed firms because accounting data is available for them and therefore we have information about the social ties between directors, firm-specific factors and country-specific data. Second, financial reporting regulation within Europe is standardized through the adoption of the IFRS Standards as the single set of global accounting standards of all the member states of the European Union (EU) therefore allowing for cross-country firm comparisons. The sample contains companies from Switzerland and Russia, which currently are not part of the EU. However, Russia has made a public commitment in support of the use of IFRS Standards as the single set of accounting standards (IFRS Foundation, 2016a) and IFRS is also widely accepted in Switzerland (IFRS Foundation, 2016b). Last, since we want to account for whether the country a firm is based in is either individualistic or collectivistic, we limit our sample of countries to Hofstede’s (2010) division of countries.

Data on social ties is collected from the BoardEx database. Data on firm specific factors such as balance sheet related and auditor related variables is collected using the Thomson Reuters Eikon database. Country specific data on national wealth is collected using the Worldbank database. Data on the individualism scores is collected from Hofstede, et al. (2010). Data on a single year is examined since the BoardEx database did not allow more years to be taken into account. BoardEx contains information on current and past employment. So data on the current year is examined. It is not possible to examine previous years because for these years current and previous employment cannot be separated since both are seen as ‘previous employment’ in the database.
Measures

Dependent Variables

To measure financial reporting quality two proxies are used. The first proxy is discretionary accruals (DA) and the second proxy is the unexplained audit fees (UAF). The discretionary accruals proxy is a measure of the managing of earnings which actually affects the financial reporting quality of a firm. The unexplained audit fees proxy is a measure of the premium that auditors demand because of the financial reporting quality. It therefore is a measure of something that is affected by the financial reporting quality whereas the discretionary accruals proxy is a measure of something that affects the financial reporting quality. Both proxies are discussed further in this paragraph.

Discretionary accruals are widely used as an indicator of financial reporting quality (e.g. Klein, 2002, Bruynseels and Cardinaels, 2014). Klein (2002) uses abnormal accruals as a proxy for earnings management to examine the effect of audit committee characteristics on earnings management. Earnings management is the choice by a manager to adapt reported earning to achieve an earnings objective. Earnings management has a negative effect on the quality of the financial reporting since the managing of earnings distorts the picture of the actual performance of the firm. For example, the CFO might receive a bonus if the earnings of the firm are above a certain level. Managing earnings using discretionary accruals is not in the best interest of the shareholders because they can negatively affect shareholder value either in the short or in the long run.

Accruals arise when a discrepancy exists between the timing of the cash inflow of a transaction and the timing of the accounting recognition of the transaction (Ronen and Yaari, 2008). An example is the recognition of revenue is the situation in which a company sells certain goods to a customer. The revenue of a sales transaction is recognized when the goods are shipped to the customer but the inflow of the financial payment may happen after this shipment. Accruals can be placed in two categories. Non-discretionary accruals arise from transactions in the current period that are normal for the firm given its performance, business strategy, industry, macro-economic events, and so on. Discretionary accruals, on the other hand, are accruals that arise from accounting treatments chosen or from transactions made in order to manage earnings. These are abnormal accruals (Ronen and Yaari, 2008). Prior studies found that high discretionary accruals indicate earnings
manipulations (Healy, 1985, Jones, 1991), and they are therefore negatively related to the financial reporting quality. The two forms of accruals are difficult to separate since non-discretionary accruals vary with performance. In order to identify discretionary accruals the normal or expected accruals have to be identified first. To do so the modified Jones model (1991) as described in Dechow, Sloan et al. (1995) is used. This model is found to consistently be able to detect earnings management when performing cross-sectional research (Bartov, Gul and Tsui, 2000). In this model the discretionary accruals are measured using two steps. In the first step normal level of non-discretionary accruals is established per industry. In the second step the accruals per firm are calculated and compared to the ‘normal’ level of non-discretionary accruals in the industry the firm is affiliated with. The difference between these two is the total discretionary accruals of the firm. Nine industries are distinguished based on the Standard Industrial Classification (SIC) codes of the firms (SICCODE, 2016). These industries are the agriculture, forestry and fishing industry (SIC codes 01-09), mining industry (SIC codes 10-14), construction industry (SIC codes 15-17), manufacturing industry (SIC codes 20-39), transportation and public utilities industry (SIC codes 40-49), wholesale trade industry (SIC codes 50-51), retail industry (SIC codes 52-59), finance, insurance and real estate industry (SIC codes 60-67) and services industry (SIC codes 70-89). The public administration industry (SIC codes 91-99) is excluded from the analysis since only publicly listed firms are included in the sample.

To estimate the normal level of discretionary accruals per industry the total amount of accruals are regressed on the change in sales and the gross level of property, plant and equipment. This can be expressed as follows:

\[
\frac{Accruals_{it}}{A_{it-1}} = \alpha_1 \left( \frac{1}{A_{it-1}} \right) + \beta_1 \left( \frac{\Delta REV_{it} - \Delta AR_{it}}{A_{it-1}} \right) + \beta_2 \left( \frac{PPE_{it}}{A_{it-1}} \right) + \varepsilon_{i,t} \quad (1)
\]

Where Accruals$_{it}$ are the earnings before extraordinary items and discontinued operations minus the change in cash and cash dividends. $A_{t-1}$ are the lagged assets. All the variables in the formula are scaled by the lagged assets to control for the beginning-of-the-period assets. The first term on the right is the intercept but it is also scaled using the lagged assets. $\Delta REV$ is the change in sales from the previous year to the most recent fiscal year, $\Delta AR$ is the change in accounts receivable from the previous year to the most recent fiscal year and PPE is the gross property, plant and equipment. Nondiscretionary accruals are driven by sales,
gross property, plant and equipment and sales growth, so that is why these variables are included. The change in accounts receivable is subtracted from the change in revenue to address the managing of credit sales.

In the second step, the coefficients that were estimated in equation 1 are used to estimate the firm-specific normal accruals (NA) using the following expression:

$$\frac{NA_{i,t}}{A_{i,t-1}} = a_1 \left( \frac{1}{A_{i,t-1}} \right) + B_1 \left( \frac{\Delta REV_{i,t}}{A_{i,t-1}} \right) + B_2 \left( \frac{PPE_{i,t}}{A_{i,t-1}} \right)$$  \hspace{1cm} (2)

Where NA refers to the firm-specific normal discretionary accruals, the accruals one would expect from a firm that is operating in a certain industry. The coefficients a, B1 and B2 are the OLS estimates of $\alpha_1$, $\beta_1$, $\beta_2$ from equation 1. The other variables are as in equation 1.

The discretionary accruals for the firms are the difference between the ‘normal’ level of accruals of the firm, calculated using equation 2, and the actual accruals of the firm calculated as the earnings before extraordinary items and discontinued operations minus the change in cash and cash dividends. So the actual accruals are compared to the accruals one would expect from a firm in a certain industry. The abnormal accruals (DA) are:

$$DA_{i,t} = Accruals_{i,t} - NA_{i,t}$$  \hspace{1cm} (3)

Earnings can be managed upwards and downwards. In the analysis these two might cancel each other out. To control for this, a distinction is made between positive and negative discretionary accruals (DA_POS and DA_NEG) as done by Cohen, Dey, et. al (2008).

The second proxy measures reporting quality using unexplained audit fees (Dehaan, Hodge and Shevlin, 2013, Hribar, Kravet and Wilson, 2014). Unexplained audit fees are indicative of lower reporting quality because the higher fees are caused (in part) by the increased effort of auditor to audit the lower quality reports. The unexplained audit fees are measured as the residual from the regression of audit fees on its known determinants. The idea behind this proxy is that the part of the audit fees that cannot be explained by its known determinants must be caused by the premium that the auditor includes in the fees due to the additional effort that the auditor has to make to deal with the quality of reporting. The lower the financial reporting quality, the higher the premium and the higher the unexplained audit fees are. This proxy can be expressed as follows:
\[ \text{Ln}(\text{AUDITFEE})_{i,t} = \]
\[ a_0 + \beta_1 \text{BIG4}_{i,t} + \beta_2 \text{Ln}(A)_{i,t} + \beta_3 \text{BUSSEG}_{i,t} + \beta_4 \text{GEOSEG}_{i,t} + \beta_5 \frac{\text{INV}_{i,t}}{A_{i,t}} + \]
\[ \beta_6 \frac{\text{REC}_{i,t}}{A_{i,t}} + \]
\[ \beta_7 \text{CR}_{i,t} + \beta_8 \text{BTM}_{i,t} + \beta_9 \frac{\text{DEBT}_{i,t}}{A_{i,t}} + \beta_{10} \text{EMPLS}_{i,t} + \beta_{11} \text{DEC}_Y{e}_{i,t} + \beta_{12} \text{ROA}_{i,t} + \]
\[ \beta_{13} \text{LOSS}_{i,t} + \beta_{14} \text{IPO}_{i,t} + \beta_{15} \text{SEO}_{i,t} + \beta_{16} \text{ISSUANCE}_{i,t} + \beta_{17} \text{LITRISK}_{i,t} + \epsilon_{i,t} \]  

Where the variable AUDITFEE stands for the annual audit fee of the firm. The first term on the right hand side is BIG4 which is a dummy which is 1 if the auditor of the firm is one of the big 4 auditors (Deloitte, KPMG, PricewaterhouseCoopers and Ernst & Young). The amount of the fee is dependent on the quality of the auditor. The big 4 auditors are assumed to provide higher quality audits compared to the other auditors and they charge higher fees. The second term on the right hand side is A, which are the assets of the firm in year t and is a measure of the size of the firm which is positively related to the fees a firm has to pay. BUSSEG and GEOSEG are the square root of the number of business and geographical segments of the firm, INV is the value of the inventory, REC is the receivables, CR is the current ratio calculated as the current assets divided by the current liabilities, BTM is the book value of equity divided by market value of equity, DEBT is the total debt, EMPLS, square root of the number of employees and DEC_YE, dummy variable equal to 1 if the fiscal year-end does not end in December and zero otherwise. Ln(A), BUSSEG, GEOSEG, INV, REC, CR, BTM, DEBT, EMPLS and DEC_YE are included in the model as a proxy for the complexity of the audit. ROA is the operating income after depreciation scaled by the assets and LOSS is a dummy variable which is one if the actual earnings per share (EPS) is less than 0. ROA and LOSS are included as a proxy for the inherent risk of the firm which likely leads to greater audit effort. IPO is a dummy variable that is 1 if the firm issued a public offering during the year, SEO is a dummy variable that is 1 if the firm issued a seasoned equity offering during the year and ISSUANCE is a dummy variable that is 1 if the firm issued debt during the year. IPO, SEO and ISSUANCE are included to capture specific corporate events that increase the risk of litigation which increase audit effort and therefore audit fees. LITRISK, a dummy variable that is 1 if the firm is affiliated with a high risk litigation industry as defined in Francis, Philbrick and Schipper (1994). The industry the firm is affiliated with is based on its SIC code (SICCODE, 2016). The high litigation risk industries are the biotechnology industry (SIC codes: 2833-2836 and 8731-8734), the computer industry (SIC codes: 3570-3577 and
7370-7374), the electronics industry (SIC codes: 3600-3674) and the retailing industry (Sic codes: 5200-5961). This variable is used as a proxy for litigation risk. Certain industries are more prone to litigation so auditors charge a premium for their audit services. The residual from this model is the measure of unexplained audit fees (UA). Measures of internal control quality and corporate governance are excluded from the model because internal control deficiencies or ineffective corporate governance do not only influence audit fees but also accounting quality. These measures are excluded to ensure that association between audit fees and accounting quality is what is captured in the unexplained audit fees (Hribar, Kravet et al., 2014).

**Independent Variables**

This study has two important independent variables, social ties and the level of individualism. Social tie is a firm-level variable (SOCIALCEO and SOCIALCFO) used to proxy the social links between a firm’s senior management -CEO and CFO- and the audit committee. Social ties consist of the collection of ties through previous employment, education, and non-professional activities. Past employment refers to whether the CEO/CFO and a committee member have served on boards or audit committees together or if they were employed by the same company at the same time in the past. Educational ties arise when the CEO/CFO and an audit committee member have attended the same university. Important to mention is that for this measure it is not necessary that they attended the university at the same time. Attending the same university can instill a similar attitude or belief system in the alumni. It is therefore not necessary for the research subjects in this study to have attended the school in the same period in time. Also, the attendance of the same school can create a bond between two people as it is a common denominator. Social ties based on non-professional activities are ties that are established because the CEO/CFO and the audit committee members have a past or present membership of the same charity, leisure club, armed forces, government or medical organization. The different effects that these social ties have are included in the second hypotheses. A distinction is made between social ties based on advice networks and on friendship networks. Social ties originating from employment or educational activities are based on advice networks. Social ties originating from non-professional activities are based on friendship networks.
The second independent variable is the level of individualism (IND). This variable is used to estimate the models of the third set of hypotheses in which the level of individualism is positively related to financial reporting quality through its mitigating effect on the social ties between the CEO/CFO and the audit committee. The level of individualism per country is measured using the study performed by Hofstede (1980, 1991, 2010). He uses a method based on surveys to distinguish several dimensions of culture. For the individualism dimension, questions surrounding working goals are used to determine the level of individualism. Certain working goals are associated with individualism, for example personal time, freedom and having challenging work. These goals stress the independence of the employee from the organization. Other working goals are associated with collectivism, for example training, physical conditions and the use of skills. These goals stress the dependence of the employee on the organization. An example of a question is: ‘How important is it to you to: have a job which leaves you sufficient time for your personal or family life?’ The questions are presented using a Likert scale design where the research subject has to indicate how important the working goal was to them on a scale of 1 to 5. Using these scores an index is created where a country with a score of 0 is indicated to be completely characterized by collectivism and a country with a score of 100 is indicated to be completely characterized by individualism. In the most updated version of his work (Hofstede, Hofstede et al., 2010), Hofstede indicates that the United States has the highest individualism score of 91 and Guatemala has the lowest score of 6. In this study the country with the highest individualism score is the United Kingdom with a score of 89, the country with the lowest individualism score is Portugal with a score of 27. So according to hypotheses 3, public companies from the United Kingdom publish financial reports of superior quality compared to public companies from Portugal. Two interaction variables are included in the models (SOCIALCEO_IND and SOCIALCFO_IND) to account for the assumed relationship between the effect of the social ties and the level of individualism.

**Control Variables**

The main control variables that are used are the size of the audit committee (SIZEAUDIT), the financial expertise within the board (FINEXP) and the social ties between the CFO and the CEO (CEOxCFO). The size of the audit committee and the financial expertise within the committee affect the functioning of the board. Research has shown that audit committee size is positively associated with earning management (Ghosh, Marra and Moon, 2010).
Furthermore, research has shown that financial expertise in the audit committee does not only have a positive effect on the market reaction to the firm (Engel, 2005) but it is also negatively associated with earnings management (Bédard, Chtourou and Courteau, 2004, Dhaliwal, Naiker and Navissi, 2010, Badolato, Donelson and Ege, 2014) and the occurrence of financial restatements (Abbott, Parker and Peters, 2004). The social ties between the CFO and the CEO can influence the power and the effect of the social ties between the CEO/CFO and the audit committee. Furthermore, Feng, Ge, Luo and Shevlin (2011) find that CFOs are not involved with material accounting manipulations for their personal benefits but because they succumb to pressure from the CEO of the firm. This shows that the influence of the CEO on the CFO needs to be taken into account.

Furthermore, a control variable for the size of the organizations is included by looking at the firm’s market capitalization (SIZE). Research has shown that members of smaller firms are more morally involved whereas members in larger firms are more involved in a calculative manner (Ingham, 1970, Hofstede, 1980). This relation suggests that a positive relation exists between the size of a firm and the degree of individualism. Other firm specific control variables that are used are the financial leverage (LEV), return on assets (ROA) and price-to-book ratio (PB) to control for the firm’s capital structure, financial performance and growth opportunities. Also a control variable is included to the control the quality of the auditor (BIG4), the big 4 auditors are assumed to perform higher quality audits which affects the quality of the financial reporting. Since the unexplained audit fee measure already includes measures for the quality and the financial performance of the firm, the BIG4 and ROA variables are not used as control variables in the models based on this measure. A control variable is included that controls for the country the firm resides in. National wealth is used as a proxy for the economic state of the countries in the sample. Research has shown that a country’s national wealth is positively related to the level of individualism (Hofstede, 1980) so this variable is also relevant for the models based on hypothesis three. To control for national wealth the Gross National Income (GNI) per capita at purchasing power parity of the countries in sample is included in the models to accounting for price differences between countries.

A list of all important variables is provided below. A more extensive list can be found in the appendix in table 20.
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Measure</th>
<th>Type of variable*</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIALCEO</td>
<td>proportion of audit committee members with social ties with the CEO</td>
<td>IV</td>
</tr>
<tr>
<td>SOCIALCFO</td>
<td>proportion of audit committee members with social ties with the CEO</td>
<td>IV</td>
</tr>
<tr>
<td>ADVICECEO</td>
<td>proportion of audit committee members with social ties based on education and past employment with the CEO</td>
<td>IV</td>
</tr>
<tr>
<td>ADVICECFO</td>
<td>proportion of audit committee members with social ties based on education and past employment with the CFO</td>
<td>IV</td>
</tr>
<tr>
<td>FRIENDCEO</td>
<td>proportion of audit committee members with social ties based on non-professional activities with the CEO</td>
<td>IV</td>
</tr>
<tr>
<td>FRIENDCFO</td>
<td>proportion of audit committee members with social ties based on non-professional activities with the CFO</td>
<td>IV</td>
</tr>
<tr>
<td>IND</td>
<td>individualism score based in Hofstede's (1991) index</td>
<td>IV</td>
</tr>
<tr>
<td>SOCIALCEO_IND</td>
<td>proportion of audit committee members with social ties based on non-professional activities with the CEO</td>
<td>IV</td>
</tr>
<tr>
<td>SOCIALCFO_IND</td>
<td>proportion of audit committee members with social ties based on non-professional activities with the CFO</td>
<td>IV</td>
</tr>
<tr>
<td>DA</td>
<td>discretionary accruals, calculated using formula 4 (page 21)</td>
<td>DV</td>
</tr>
<tr>
<td>DA_NEG</td>
<td>negative discretionary accruals</td>
<td>DV</td>
</tr>
<tr>
<td>DA_POS</td>
<td>positive discretionary accruals</td>
<td>DV</td>
</tr>
<tr>
<td>UAF</td>
<td>unexplained audit fees, calculated as the residual of formula 4 (page 21)</td>
<td>DV</td>
</tr>
<tr>
<td>SIZEAUDIT</td>
<td>the amount of members the audit committee contains</td>
<td>CV</td>
</tr>
<tr>
<td>FINEXP</td>
<td>a dummy variable that is 1 if at least one member of the audit committee has financial expertise</td>
<td>CV</td>
</tr>
<tr>
<td>CEOxCFO</td>
<td>a dummy variable that is 1 if social ties exist between the CEO and the CFO of the same firm</td>
<td>CV</td>
</tr>
<tr>
<td>SIZE</td>
<td>the amount of outstanding shares multiplied by the current market price of one share</td>
<td>CV</td>
</tr>
<tr>
<td>LEV</td>
<td>the amount of debt to equity</td>
<td>CV</td>
</tr>
<tr>
<td>ROA</td>
<td>the log of the return of assets</td>
<td>CV</td>
</tr>
<tr>
<td>PB</td>
<td>the stock price divided by the total assets minus the intangible assets and liabilities</td>
<td>CV</td>
</tr>
<tr>
<td>BIG4</td>
<td>a dummy variable that is 1 if the external auditor of the firm is one of the big 4 auditors</td>
<td>CV</td>
</tr>
<tr>
<td>COUNTRY</td>
<td>a dummy variable based on the country in which the firm resides</td>
<td>CV</td>
</tr>
<tr>
<td>GNI</td>
<td>the Gross National Income of the country in which the firm resides per capita at purchasing power parity</td>
<td>CV</td>
</tr>
</tbody>
</table>

* IV = Independent Variable, DV = Dependent Variable, CV = Control Variable

Table 1: List of Independent, Dependent and Control Variables
Models

In order to test the hypotheses four sets of models are used, one for each proxy of financial reporting quality. Since each set of hypotheses contains both the social ties with the CEO and the CFO, a total of eight models per set of hypotheses are required. OLS regressions are used on these models since the dependent and independent variables are continuous variables and this is a cross sectional study.

The first eight models are for the first set of hypotheses. These hypotheses predict that the amount of social ties between the CEO/CFO and the audit committee is negatively related to the financial reporting quality of the firm. The models and the expected effects are depicted in table 2. For all proxies the coefficients of the SOCIALCEO variable and the SOCIALCFO variable are expected to be significantly positive. The higher the proportion of social ties, the lower the financial reporting quality so the bigger these proxies for financial reporting quality are. For the DA_NEG proxy the SOCIALCEO variable and SOCIALCFO variable would be expected to be significantly negative since more negative discretionary accruals are a sign of lower financial reporting quality but since the DA_NEG and the DA_POS variables are skewed, the natural logarithm of these variables is taken. Thus the DA_NEG variable has become positive; the more negative the negative discretionary accruals are, the more positive the natural logarithm of the DA_NEG variable is. The expected effect of this variable therefore is positive; the higher the proportion of social ties, the higher the natural logarithm of the DA_NEG variable.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Expected Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a/1b</td>
<td>1/5</td>
<td>DA</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td>1a/1b</td>
<td>2/6</td>
<td>DA_POS</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td>1a/1b</td>
<td>3/7</td>
<td>DA_NEG</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td>1a/1b</td>
<td>4/8</td>
<td>UAF</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
</tbody>
</table>

Table 2: Models Hypothesis 1 and Expected Effects
The second set of models is for the second set of hypotheses. These hypotheses predict that the social ties based on friendship ties affected financial reporting quality more negatively compared to social ties based on advice networks. The different types of social ties are measured separately to examine their different effects. The models and the expected effects are depicted in table 3. For all the proxies the coefficients of the FRIENDCEO, FRIENDCFO, ADVICECEO and ADVICECFO variables are expected to be significantly positive. The coefficients of FRIENDCEO and FRIENDCFO variables are expected to be significantly more positive compared to the ADVICECEO and ADVICECFO coefficients. As mentioned, because the natural logarithm is taken from the negative discretionary accruals proxy the expected effects are similar to the other proxies even though intuitively one would expect that the social ties are negatively correlated with the negative discretionary accruals.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Expected Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a/2b</td>
<td>9/13</td>
<td>DA</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
</tr>
<tr>
<td>2a/2b</td>
<td>10/14</td>
<td>DA_POS</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
</tr>
<tr>
<td>2a/2b</td>
<td>11/15</td>
<td>DA_NEG</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
</tr>
<tr>
<td>2a/2b</td>
<td>12/16</td>
<td>UAF</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
</tr>
</tbody>
</table>

*Table 3: Models Hypothesis 2 and Expected Effects*

The third set of models is for the third set of hypotheses. These hypotheses predict that the financial reporting quality of firms is affected more negatively by social ties if the firm is from a country that is characterized by collectivism as opposed to individualism. To control for this an interaction effect between the country and the level of individualism and individualism dummy is included in the model. The models and the expected effects are depicted in table 4. For all proxies the coefficients of the SOCIALCEO variable and the
SOCIALCFO variable are expected to be significantly positive. The coefficient of the IND variable is expected to be significantly negative since the level of individualism is expected to be positively correlated with the financial reporting quality and therefore negatively correlated with the proxies. The coefficients of the SOCIALCEO_IND variable and the SOCIALCFO_IND variables are expected to be negative since the effect of social ties in firms in countries characterized by individualism is expected to be weaker compared to the effect of these ties in firms in countries characterized by collectivism.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Expected Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a/3b</td>
<td>17/21</td>
<td>DA</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IND</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
</tr>
<tr>
<td>3a/3b</td>
<td>18/22</td>
<td>DA_POS</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IND</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
</tr>
<tr>
<td>3a/3b</td>
<td>19/23</td>
<td>DA_NEG</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IND</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
</tr>
<tr>
<td>3a/3b</td>
<td>20/24</td>
<td>UAF</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IND</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
</tr>
</tbody>
</table>

Table 4: Models Hypothesis 3 and Expected Effects
Chapter 4

In this chapter the results of the study are discussed. First the descriptive statistics of the dependent and independent variables are presented. After that the results on the different sets of hypotheses are discussed. Finally the robustness checks are discussed. To avoid the inclusion of a lot of tables, only the most important results are presented in this chapter. The tables with all the results are available in the appendix. They are referred to throughout this chapter.

Descriptive statistics

First the descriptive statistics of the dependent and independent variables are presented in table 5. The proxies for financial reporting quality (DA, DA_POS, DA_NEG and UAF) are measured in Euros. The DA variable has fewer observations than the UAF variable because some outliers are removed from the dataset. The variable DA is divided in positive and negative discretionary accruals to examine the different effects of positive and negative earnings management. Most firms have positive discretionary accruals. As mentioned, the natural logarithm of the positive and negative discretionary accruals proxies are taken because of the distributions of the variables is highly skewed. Because of this transformation the DA_NEG variable is positive. The distribution of the DA variable is not skewed so the variable is not transformed in that respect. The variable is divided by 10,000,000 to make comparisons with the other variables easier.

The social ties variables are measured in percentages. The average friendship ties vary between two and sixteen percent. This is lower than in the earlier mentioned study by Beasley, Carcello, Hermanson and Neal (2009), who found that the average percentage of committee members with personal ties to management is 33 percent. A reason for this difference can be that the aforementioned study was conducted for US firms and this study examines firms based in Europe. In the sample, no social relation exists between top management and the audit committee for most firms. When they do exist they are more likely to be based on advice networks compared to friendship networks. The minimum amount of ties is zero percent for all types of social ties. The maximum amount of social ties varies between 200 and 350 percent. It is possible for these amounts to be over 100 percent since in some firms multiple social ties based on advice networks and/or friendship networks existed. For example, in some firms the CEO and an audit committee member are alumni
from the same university and they used to be employed at the same company or the CFO and an audit committee member are members of the same charity organization and sports club. The individualism variable (IND) is measured on a scale from 0 to 100. The variable has a mean of almost 80 which means that the sample is, on average, characterized more by individualism as opposed to collectivism. The reason for this is that a large part of the firms in the sample is from the UK which is the country with the highest individualism score of 89.

At the end of the chapter the robustness checks are presented in which the UK firms are excluded from the sample to examine whether this UK bias has an effect on the findings.

<table>
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<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
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</tbody>
</table>

*Table 5: Descriptive Statistics*

A Pearson’s product moment correlation is run to assess the relationship between the proxies of financial reporting quality, the different types of social ties and the individualism score. The results are presented in table 6. The unexplained audit fees and the discretionary accruals are positively correlated, $r = .1362, p < .05$. Furthermore, the positive discretionary accruals and negative discretionary are positively correlated with the unexplained audit fees, $r = 0.7453, p < 0.05$ and $r = 6741, p < 0.05$. These correlations are to be expected since all variables are proxies for financial reporting quality.
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<tr>
<th></th>
<th>UAF</th>
<th>DA</th>
<th>DA_POS</th>
<th>DA_NEG</th>
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<th>ADVICECEO</th>
<th>FRIENDCEO</th>
<th>SOCIALCFO</th>
<th>ADVICECFO</th>
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<td>0.2578*</td>
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</table>

Table 6: Pearson’s product moment correlation
The SOCIALCEO and SOCIALCFO variables positively correlated, \( r = 0.4733, p < 0.05 \). All the other social ties variables are also correlated with each other. The SOCIALCEO variable is negatively correlated with the individualism variable, \( r = -0.1151, p < 0.05 \), as expected in hypothesis 3a. The SOCIALCFO variable is not correlated with the individualism variable; this was expected in hypothesis 3b. The ADVICECFO variable, on the other hand, is (negatively) correlated with the individualism scores, \( r = -0.0757, p < 0.05 \).

**Hypothesis 1**

Hypothesis 1 predicts that an increase in the proportion of social ties between the CEO/CFO and the members of the audit committee has a negative effect on the financial reporting quality. In this case that means that this increase will result in higher/more negative discretionary accruals and higher unexpected audit fees. Hypothesis 1a looks at the social ties between the CEO and the audit committee and hypothesis 1b looks at the social ties between the CFO and the audit committee.

Table 7 reports the most important results of the regressions of the models on the effect of the proportion of social ties between CEO/CFO and the audit committee members on the discretionary accruals proxies and on the unexplained audit proxy. Model 2, 3 and 4 are the results for the DA_POS, DA_NEG and the UAF proxies for the regressions of hypothesis 1a. Model 6, 7 and 8 are the results for the DA_POS, DA_NEG and the UAF proxies for the regressions of hypothesis 1b. In the appendix in table 21 and 22 the full set of results for the regressions of the hypothesis 1a and 1b are presented. Table 7 shows that the SOCIALCEO variable adds statistically significantly to the prediction of the DA_POS, DA_NEG and UAF proxies. The coefficient is negative, respectively coef = -.005, -.005 and -.003. These findings are not consistent with hypothesis 1a. In this case as the proportion of social ties increases, the positive discretionary accruals and the unexplained audit fees decrease and the negative discretionary accruals increase. This means that the financial reporting quality actually improves. These same results are found for the SOCIALCFO variable. The variable is significantly negatively correlated with the DA_POS, DA_NEG and UAF variables. The coefficients are respectively, -.005, -.002 and -.004. These findings are not consistent with hypothesis 1b. A significant positive effect is expected. Neither the SOCIALCEO variable nor the SOCIALCFO variables adds statistically significantly to the prediction of the DA proxy. This finding is also not consistent with hypothesis 1a or 1b.
The variance inflation factor (VIF) scores of all the variables in the regressions are below 2.5 which means that multicollinearity is not a problem. For hypothesis 1a, the average VIF scores for the DA, DA_POS, DA_NEG and UAF variables are respectively 1.10, 1.12, 1.13 and 1.10. For hypothesis 1b, the average VIF scores for the DA, DA_POS, DA_NEG and UAF variables are respectively 1.09, 1.12, 1.13 and 1.10.

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 6</th>
<th>Model 7</th>
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<td>DA_NEG</td>
<td>UAF</td>
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</tr>
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</table>

Observations 400 250 733 400 250 733
R-squared 0.434 0.328 0.508 0.433 0.319 0.514

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

Table 7: Regression Hypothesis 1a and 1b
variables are respectively 1.10, 1.10, 1.13 and 1.09. The other assumptions of an OLS regression (linearity between the dependent and independent variables, homoscedasticity and normal distribution of residuals) also have not been violated.

In conclusion, the social ties between the CEO or the CFO and the members of audit committee have a significant effect on the positive and negative discretionary accruals and on the unexplained audit fees. However, this effect works in the opposite direction as predicted in hypothesis 1. An increase in the proportion of social ties actually has a positive effect on the financial reporting quality. A reason for this can be that social ties between senior management and the audit committee actually encourage cooperation and therefore have a positive effect on the collaboration and the communication. This is beneficial for the functioning of the audit committee and therefore the financial reporting quality. For example, it might become easier for member of the audit committee and the CEO to question the behavior of a CFO when he or she is managing earnings. Or it might become easier for the CFO to collaborate with the audit committee to work with the auditor which can explain the lower unexplained audit fees. Social ties are found not to have a significant effect on the discretionary accruals. A reason for this can be that this variable measures both positive and negative discretionary accruals. The analysis shows that social ties have different effects on these two proxies. It is negatively correlated with the positive discretionary accruals and positively correlated with the negative discretionary accruals. These two effects apparently have cancelled each other out. Based on these findings, hypothesis 1a and 1b are both rejected. A comparison between the expected effects and the actual effects is presented in table 8.

<table>
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<tr>
<th>Hypothesis</th>
<th>Model</th>
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<th>Independent variable</th>
<th>Expected Effect</th>
<th>Actual Effect</th>
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</thead>
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<td>- / -</td>
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<td>+ / +</td>
<td>- / -</td>
</tr>
</tbody>
</table>

*Table 8: Models Hypothesis 1 and Actual Effects*
Hypothesis 2

In this paragraph the results of the regressions of the models of the second set of hypotheses are outlined. Hypothesis 2 predicts that social ties based on friendship networks have a more negative effect on the financial reporting quality compared to social ties based on advice networks. In this study that means that friendship ties will result in higher/more negative discretionary accruals and higher unexpected audit fees compared to advice ties. Hypothesis 2a looks at the social ties between the CEO and the audit committee and hypothesis 2b looks at the social ties between the CFO and the audit committee.

Table 9 reports the most important results of the regressions of the models on effect of the proportion of friendship and advice ties between CEO/CFO and the audit committee members on the discretionary accruals proxies and on the unexplained audit proxy. Model 10, 11 and 12 are the results for the DA_POS, DA_NEG and the UAF proxies for the regressions of hypothesis 2a. Model 14 and 16 are the results for the DA_POS and the UAF proxies for the regressions of hypothesis 2b. In the appendix in table 23 and 24 the full set of results for the regressions of the hypothesis 2a and 2b are presented. Table 9 shows that the FRIENDCEO variable adds statistically significantly to the prediction of the DA_POS, DA_NEG and UAF proxies. The coefficient is negative, respectively coef = -.014, -.014 and -.014. The ADVICECEO variable is only significant for the unexplained audit fee proxy. The coefficient is positive, coef = 0.002. Apparently the significant effect of social ties between the CEO and the audit committee works mainly through the friendship ties as opposed to advice ties. These findings are not consistent with hypothesis 2a. In this case as the proportion of friendship ties increases, the positive and discretionary accruals and the unexplained audit fees decrease and the negative discretionary accruals increase. This means that the financial reporting quality actually is improves. Overall the friendship ties have a bigger effect than the advice ties but the effect is in the opposite direction as expected in hypothesis 2a. The FRIENDCFO adds statistically significantly to the prediction of the UAF proxy. The coefficient is negative, coef = -0.014. The ADVICECFO variable adds statistically significantly to the prediction of the DA_POS variable. The coefficient is negative, coef = -0.006. These findings are not consistent with hypothesis 2b because the friendship and advice ties have a negative effect on some of the proxies and therefore a positive effect on the financial reporting quality. The FRIENDCEO, ADVICECEO, FRIENDCFO and the ADVICECFO do not add statistically
significantly to the prediction of the DA proxy. This finding is not consistent with hypothesis 2a or 2b.

<table>
<thead>
<tr>
<th></th>
<th>Model 10</th>
<th>Model 11</th>
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<tr>
<td>CEOxCFO</td>
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<td>PB</td>
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<td>-0.193***</td>
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<td>-0.186***</td>
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<td>[0.034]</td>
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<td>[0.319]</td>
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<td>LEV</td>
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<td>0.053***</td>
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<td>[0.030]</td>
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<td>[0.167]</td>
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</tr>
<tr>
<td>GNI</td>
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<td>0.000***</td>
<td>0.000***</td>
<td>0.000</td>
<td>0.000***</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
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<td>[0.000]</td>
<td>[0.000]</td>
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<td>[0.489]</td>
<td>[0.279]</td>
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<td>400</td>
<td>733</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.447</td>
<td>0.338</td>
<td>0.528</td>
<td>0.434</td>
<td>0.529</td>
</tr>
</tbody>
</table>

Table 9: Regression Hypothesis 2a and 2b

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010
The variance inflation factor (VIF) scores of all the variables in the regressions are below 2.5 which means that multicollinearity is not a problem. For hypothesis 2a, the average VIF scores for the DA, DA_POS, DA_NEG and UAF variables are respectively 1.14, 1.16, 1.16 and 1.13. For hypothesis 2b, the average VIF scores for the DA, DA_POS, DA_NEG and UAF variables are respectively 1.13, 1.15, 1.15 and 1.12. The other assumptions of an OLS regression also have not been violated.

In conclusion, friendship ties between the CEO or the CFO and the members of the audit committee have significant bigger effect on the positive and negative discretionary accruals and on the unexplained audit fees. This effect, however, works in the opposite direction as predicted in hypothesis 2. As with the social ties in hypothesis 1, an increase in the proportion of friendship ties improves the financial reporting quality. On the other hand, advice ties between the CEO and the audit committee have a negative effect on the financial reporting quality, when looking at the unexplained audit fees. This is not completely in line with hypothesis 2. Hypothesis 2 does predict that advice ties have a negative effect but it is predicted that the friendship ties have a bigger negative effect on the financial reporting quality compared to the advice ties and this is not the case. A reason for these findings can be that friendship ties enhance the aforementioned collaboration and the communication more than advice ties. Friendship ties might make it possible to discuss matters in a more informal manner which makes discussing sensitive issues, such as the managing of earnings, easier. Important to mention is that the effect of the friendship ties is mostly visible when looking at the ties between the CEO and audit committee since these have an effect on both the positive and negative discretionary accruals and the unexplained audit fees. Friendship and advice ties do not have a significant effect on the discretionary accruals. As mentioned before a reason for this is that this variable measures both positive and negative accruals and the effects of these proxies cancel each other out. Based on these findings, hypothesis 2a and 2b are both rejected. A comparison between the expected effects and the actual effects is presented in table 10.
Hypothesis 3

In this paragraph the results of the regressions of the models of the third set of hypotheses are outlined. Hypothesis 3 predicts that social ties have a more negative effect on the financial reporting quality if the firm is located in a country that is characterized by collectivism. In this study that means that social ties and a lower individualism score will result in higher (more negative) discretionary accruals and higher unexpected audit fees. The effect of the interaction between the two is expected to be negative since the effect of social ties in firms in countries characterized by individualism is expected to be weaker compared to the effect of these ties in firms in countries characterized by collectivism. Hypothesis 3a looks at the social ties between the CEO and the audit committee and hypothesis 3b looks at the social ties between the CFO and the audit committee.

Table 11 reports the most important results of the regressions of the models on effect of the social ties between CEO or CFO and the audit committee members, the individualism score and the interaction variable on the discretionary accruals proxies and on the unexplained audit proxy. Model 18 and 20 are the results for the DA_POS and the UAF proxies for the regressions of hypothesis 3a. Model 22 and 24 are the results for the DA_POS and the UAF proxies for the regressions of hypothesis 3b. In the appendix in table 25 and 26 the full set of results for the regressions of the hypothesis 3a and 3b are presented. Table 11 shows that the effect of the SOCIALCEO variable that was found in the regressions of hypothesis 1a has disappeared now that the individualism score and the interaction variable

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Expected Effect</th>
<th>Actual effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a/2b</td>
<td>9/13</td>
<td>DA</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
<td>No / No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
<td>No / No</td>
</tr>
<tr>
<td>2a/2b</td>
<td>10/14</td>
<td>DA_POS</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
<td>- / No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
<td>No / -</td>
</tr>
<tr>
<td>2a/2b</td>
<td>11/15</td>
<td>DA_NEG</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
<td>- / No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
<td>No / No</td>
</tr>
<tr>
<td>2a/2b</td>
<td>12/16</td>
<td>UAF</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>+ / +</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / +</td>
<td>+ / No</td>
</tr>
</tbody>
</table>

Table 10: Models Hypothesis 2 and Actual Effects

Hypothesis 3
<table>
<thead>
<tr>
<th></th>
<th>Model 18</th>
<th>Model 20</th>
<th>Model 22</th>
<th>Model 24</th>
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</thead>
<tbody>
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<td>DA_POS</td>
<td>UAF</td>
<td>DA_POS</td>
<td>UAF</td>
</tr>
<tr>
<td>SOCIALCEO</td>
<td>0.004</td>
<td>0.000</td>
<td>0.002</td>
<td>0.005</td>
</tr>
<tr>
<td>IND</td>
<td>-0.012**</td>
<td>-0.021***</td>
<td>-0.015***</td>
<td>-0.019***</td>
</tr>
<tr>
<td>SOCIALCEO_IND</td>
<td>-0.012</td>
<td>-0.004</td>
<td>0.012</td>
<td>0.007</td>
</tr>
<tr>
<td>SOCIALCFO</td>
<td>0.032*</td>
<td>-0.013</td>
<td>0.014</td>
<td>0.007</td>
</tr>
<tr>
<td>SOCIALCFO_IND</td>
<td>0.404***</td>
<td>0.406***</td>
<td>0.419***</td>
<td>0.402***</td>
</tr>
<tr>
<td>SIZEAUDIT</td>
<td>-0.004</td>
<td>0.137</td>
<td>-0.011</td>
<td>0.158</td>
</tr>
<tr>
<td>FINEXP</td>
<td>0.402</td>
<td>0.208</td>
<td>0.118</td>
<td>0.208</td>
</tr>
<tr>
<td>CEOxCFO</td>
<td>0.735*</td>
<td>0.795***</td>
<td>0.639</td>
<td>0.768***</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
<tr>
<td>PB</td>
<td>0.013</td>
<td>-0.181***</td>
<td>0.008</td>
<td>-0.179***</td>
</tr>
<tr>
<td>ROA</td>
<td>0.920***</td>
<td>0.910***</td>
<td>0.315</td>
<td>0.315</td>
</tr>
<tr>
<td>LEV</td>
<td>0.27</td>
<td>0.045***</td>
<td>0.027</td>
<td>0.044***</td>
</tr>
<tr>
<td>BIG4</td>
<td>0.756***</td>
<td>0.808***</td>
<td>0.166</td>
<td>0.166</td>
</tr>
<tr>
<td>GNI</td>
<td>0.000</td>
<td>0.000***</td>
<td>0.000</td>
<td>0.000***</td>
</tr>
<tr>
<td>Constant</td>
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<td>12.190***</td>
<td>15.996***</td>
<td>12.083***</td>
</tr>
<tr>
<td>Observations</td>
<td>400</td>
<td>733</td>
<td>400</td>
<td>733</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.448</td>
<td>0.545</td>
<td>0.446</td>
<td>0.550</td>
</tr>
</tbody>
</table>

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

Table 11: Regression Hypothesis 3a and 3b
have been included in the regressions. The SOCIALCFO does still add statistically significantly to the prediction of the DA_POS proxy. The coefficient is still negative, coef = -.031. The interaction variable SOCIALCEO_IND does not add statistically significantly to the prediction of any of the proxies. The SOCIALCFO_IND variables only adds statistically significantly to the prediction of the DA_POS proxy. These findings are not consistent with hypothesis 3a or 3b. These hypotheses predict that social ties have a more negative effect on the financial reporting quality if the firm is located in a country that is characterized by collectivism. In this case either the social ties do not have an effect or the social ties have a more positive effect on the financial reporting quality if the firm is located in a country that is characterized by collectivism. The IND variable adds statistically significantly to the prediction of the DA_POS, DA_NEG and UAF proxies. The coefficient is negative in all cases. This finding is consistent with hypothesis 1a and 1b. The IND variable does not add statistically significantly to the prediction of the DA proxy.

In the regression the SOCIALCEO and SOCIALCFO are highly correlated with the SOCIALCEO_IND and SOCIALCFO_IND variables. This is to be expected since the latter two are interaction variables that include the first two variables. This also explains why the effect of the social ties that was found in the regressions of hypothesis 1 has disappeared in these regressions. The interaction variables have cancelled out some of these effects. The variance inflation factor (VIF) scores of all the other variables in the regressions are below 2.5 which means that multicollinearity is not a problem. The other assumptions of an OLS regression also have not been violated.

In conclusion, the interaction variable between the level of individualism and the social ties does not have an effect on most of the proxies of financial reporting quality. The only exception is the negative effect of the SOCIALCFO_IND variable on the positive discretionary accruals. These findings are not consistent with hypothesis 3. The level of individualism does have a significant effect on the positive and negative discretionary accruals and on the unexplained audit fees. This finding is consistent with hypothesis 3. In firms located in countries characterized by individualism there are lower positive discretionary accruals, higher negative discretionary accruals and lower unexplained audit fees and therefore the financial reporting quality is better. However, this effect is not caused by the social ties that come to existence in these countries. Another reason has to exist that explains this
phenomenon. A reason could be that the enforcement of the accounting standards in countries characterized by individualism is stricter. More research is necessary to examine this effect. Overall these findings are not consistent with hypothesis 3 and therefore both hypothesis 3a and 3b are rejected. The results are illustrated in table 12.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Expected Effect</th>
<th>Actual Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a/3b</td>
<td>17/21</td>
<td>DA</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
<td>No / No</td>
</tr>
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<td></td>
<td>IND</td>
<td>- / -</td>
<td>No / No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
<td>No / No</td>
</tr>
<tr>
<td>3a/3b</td>
<td>18/22</td>
<td>DA_POS</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
<td>No / -</td>
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<td></td>
<td>IND</td>
<td>- / -</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
<td>No / +</td>
</tr>
<tr>
<td>3a/3b</td>
<td>19/23</td>
<td>DA_NEG</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>+ / +</td>
<td>No / No</td>
</tr>
<tr>
<td></td>
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<td>IND</td>
<td>- / -</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
<td>No / No</td>
</tr>
<tr>
<td>3a/3b</td>
<td>20/24</td>
<td>UAF</td>
<td>SOCIALCEO/ SOCIALCFO</td>
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<td>No / No</td>
</tr>
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<td></td>
<td></td>
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<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCEO_IND/ SOCIALCFO_IND</td>
<td>- / -</td>
<td>No / No</td>
</tr>
</tbody>
</table>

Table 12: Models Hypothesis 3 and Actual Effects
Robustness checks

In this paragraph robustness checks are performed to test the structural validity of the results from the previous paragraphs. As mentioned, a large part of the sample consists of UK firms. 401 firms out of 733 are based in the United Kingdom to be exact. Excluding the UK firms from the dataset has a clear effect on the individualism score of the sample. In table 13 a summary of the sample without the UK firms is displayed. The new mean of the individualism score is around 66. This is 13 points lower than the original score. To examine the influence and whether a ‘UK-effect’ exists in the previous regression, the regressions are run again but this time the UK firms are excluded. The results of the regressions are displayed in tables 14, 16 and 18.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
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<td>DA_POS</td>
<td>156</td>
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</tr>
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<td>18.20116</td>
<td>1.602934</td>
<td>10.52744</td>
<td>20.62326</td>
</tr>
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<td>332</td>
<td>13.60108</td>
<td>1.247364</td>
<td>10.23952</td>
<td>17.40139</td>
</tr>
<tr>
<td>SOCIALCEO</td>
<td>332</td>
<td>21.43825</td>
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<td>300</td>
</tr>
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<td>39.97818</td>
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<td>300</td>
</tr>
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<td>35.96237</td>
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<td>300</td>
</tr>
<tr>
<td>ADVICECFO</td>
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<td>300</td>
</tr>
<tr>
<td>FRIENDCFO</td>
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<td>65.90964</td>
<td>11.88913</td>
<td>27</td>
<td>80</td>
</tr>
</tbody>
</table>

Table 13: Descriptive statistics of sample excluding UK firms

The most important results of the regressions of hypothesis 1 are displayed in table 14. In the appendix in table 27 and 28 the full set of results for the robustness checks of the hypothesis 1a and 1b are presented. The models 25, 26, 27 and 28 correspond to model 1, 2,
3 and 4 of hypothesis 1a. The original regressions for hypothesis 1a show that the social ties between the CEO and the members of the audit committee have a significant effect on the positive and negative discretionary accruals and on the unexplained audit fees but this effect

<table>
<thead>
<tr>
<th>Model 26</th>
<th>Model 27</th>
<th>Model 28</th>
<th>Model 30</th>
<th>Model 31</th>
<th>Model 32</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA_POS</td>
<td>DA_NEG</td>
<td>UAF</td>
<td>DA_POS</td>
<td>DA_NEG</td>
<td>UAF</td>
</tr>
<tr>
<td>SOCIALCEO</td>
<td>-0.007***</td>
<td>-0.006**</td>
<td>-0.003***</td>
<td>0.002</td>
<td>[0.003]</td>
</tr>
<tr>
<td>SOCIALCFO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZEAUDIT</td>
<td>0.311***</td>
<td>0.157</td>
<td>0.306***</td>
<td>0.310***</td>
<td>0.125</td>
</tr>
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<td>FINEXP</td>
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<td>0.254</td>
<td>0.018</td>
<td>0.264</td>
<td>0.291</td>
</tr>
<tr>
<td>CEOxCFO</td>
<td>2.289***</td>
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<td>0.950***</td>
<td>1.917***</td>
<td>0.076</td>
</tr>
<tr>
<td>SIZE</td>
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<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
<tr>
<td>PB</td>
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<td>-0.158***</td>
<td>0.032</td>
<td>-0.155**</td>
</tr>
<tr>
<td>ROA</td>
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<td>1.192</td>
<td>1.063**</td>
<td>0.982**</td>
<td>1.369</td>
</tr>
<tr>
<td>LEV</td>
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<td>0.060</td>
<td>0.040***</td>
<td>0.030</td>
<td>0.072</td>
</tr>
<tr>
<td>BIG4</td>
<td>0.074</td>
<td>0.925**</td>
<td>0.193</td>
<td>0.997**</td>
<td></td>
</tr>
<tr>
<td>GNI</td>
<td>-0.000</td>
<td>0.000*</td>
<td>-0.000</td>
<td>0.000</td>
<td>0.000**</td>
</tr>
<tr>
<td>Observations</td>
<td>156</td>
<td>119</td>
<td>332</td>
<td>156</td>
<td>119</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.408</td>
<td>0.277</td>
<td>0.495</td>
<td>0.416</td>
<td>0.248</td>
</tr>
</tbody>
</table>

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

Table 14: Robustness Checks Hypothesis 1
works in the opposite direction as predicted in the hypothesis. The models 26, 27 and 28 show similar results. The SOCIALCEO variable is significantly correlated with the DA_POS, DA_NEG and UAF proxies and in the same direction as in the original regressions. The variable is not correlated with the DA proxy. The models 29, 30, 31 and 32 correspond to model 5, 6, 7 and 8 of hypothesis 1b. The original regressions for hypothesis 1b show that the social ties between the CFO and the members of audit committee have a significant effect on the positive and negative discretionary accruals and on the unexplained audit fees but this effect works in the opposite direction as predicted in the hypothesis. The models 30, 31 and 32 show different results. The SOCIALCEO variable is significantly negatively correlated with the DA_POS proxy but is not significantly correlated with the DA_NEG and UAF proxies. The variable is also not correlated with the DA proxy. A comparison of the original results and the robustness checks is provided in table 15.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Actual Effect</th>
<th>Robustness Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a/1b</td>
<td>1/5</td>
<td>DA</td>
<td>SOCIALCEO/ SOCIALCFO</td>
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<td>No / No</td>
</tr>
<tr>
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<td>2/6</td>
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<td>- / -</td>
</tr>
<tr>
<td>1a/1b</td>
<td>3/7</td>
<td>DA_NEG</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>- / -</td>
<td>- / No</td>
</tr>
<tr>
<td>1a/1b</td>
<td>4/8</td>
<td>UAF</td>
<td>SOCIALCEO/ SOCIALCFO</td>
<td>- / -</td>
<td>- / No</td>
</tr>
</tbody>
</table>

Table 15: Models Hypothesis 3, Actual Effects and Robustness Checks

The most important results of the regressions of hypothesis 2 are displayed in table 16. In the appendix in table 29 and 30 the full set of results for the robustness checks of the hypothesis 2a and 2b are presented. The models 33, 34, 35 and 36 correspond to model 9, 10, 11 and 12 of hypothesis 2a. The original regressions for hypothesis 2a show that friendship ties between the CEO and the members of the audit committee have a significant negative effect on the positive and negative discretionary accruals and on the unexplained audit fees. Furthermore the advice ties are found to have a positive effect on the unexplained audit fees. The models 34, 35 and 36 show similar results the FRIENDCEO variable adds statistically significantly to the prediction of the DA_POS, DA_NEG and UAF proxies. However, the ADVICECEO variable does not add statistically significantly to the
<table>
<thead>
<tr>
<th>Model 34</th>
<th>Model 35</th>
<th>Model 36</th>
<th>Model 39</th>
<th>Model 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA_POS</td>
<td>DA_NEG</td>
<td>UAF</td>
<td>DA_POS</td>
<td>UAF</td>
</tr>
<tr>
<td>FRIENDCEO</td>
<td>-0.025***</td>
<td>-0.039**</td>
<td>-0.017***</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>[0.009]</td>
<td>[0.004]</td>
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<tr>
<td>ADVICECEO</td>
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<td>0.000</td>
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</tr>
<tr>
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<td>[0.003]</td>
<td>[0.001]</td>
<td></td>
</tr>
<tr>
<td>FRIENDCFO</td>
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<td>-0.016***</td>
</tr>
<tr>
<td></td>
<td>[0.010]</td>
<td>[0.006]</td>
<td>[0.004]</td>
<td></td>
</tr>
<tr>
<td>ADVICECFO</td>
<td></td>
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<td>0.001</td>
</tr>
<tr>
<td></td>
<td>[0.003]</td>
<td>[0.003]</td>
<td>[0.001]</td>
<td></td>
</tr>
<tr>
<td>SIZEAUDIT</td>
<td>0.299***</td>
<td>0.142</td>
<td>0.296***</td>
<td>0.309***</td>
</tr>
<tr>
<td></td>
<td>[0.072]</td>
<td>[0.108]</td>
<td>[0.037]</td>
<td>[0.073]</td>
</tr>
<tr>
<td>FINEXP</td>
<td>0.226</td>
<td>0.234</td>
<td>0.009</td>
<td>0.269</td>
</tr>
<tr>
<td></td>
<td>[0.252]</td>
<td>[0.303]</td>
<td>[0.121]</td>
<td>[0.256]</td>
</tr>
<tr>
<td>CEOxCFO</td>
<td>1.963***</td>
<td>0.232</td>
<td>0.827***</td>
<td>1.916***</td>
</tr>
<tr>
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<td>[0.605]</td>
<td>[0.577]</td>
<td>[0.250]</td>
<td>[0.574]</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.000***</td>
<td>0.000**</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
<td>[0.000]</td>
<td>[0.000]</td>
<td>[0.000]</td>
</tr>
<tr>
<td>PB</td>
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<td>-0.172**</td>
<td>-0.161***</td>
<td>0.034</td>
</tr>
<tr>
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<td>[0.042]</td>
<td>[0.067]</td>
<td>[0.023]</td>
<td>[0.043]</td>
</tr>
<tr>
<td>ROA</td>
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<td>0.965</td>
<td>0.994**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.430]</td>
<td>[1.013]</td>
<td>[0.437]</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.025</td>
<td>0.045</td>
<td>0.039***</td>
<td>0.027</td>
</tr>
<tr>
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<td>[0.035]</td>
<td>[0.062]</td>
<td>[0.014]</td>
<td>[0.035]</td>
</tr>
<tr>
<td>BIG4</td>
<td>-0.058</td>
<td>0.642</td>
<td>0.184</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[0.309]</td>
<td>[0.435]</td>
<td>[0.311]</td>
<td></td>
</tr>
<tr>
<td>GNI</td>
<td>0.000</td>
<td>0.000***</td>
<td>-0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
<td>[0.000]</td>
<td>[0.000]</td>
<td>[0.000]</td>
</tr>
<tr>
<td></td>
<td>[0.677]</td>
<td>[0.926]</td>
<td>[0.308]</td>
<td>[0.672]</td>
</tr>
</tbody>
</table>

| Observations | 156 | 119 | 332 | 156 | 332 |
| R-squared    | 0.443 | 0.354 | 0.521 | 0.421 | 0.501 |

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

Table 16: Robustness Checks Hypothesis 2
prediction of the DA_POS proxy anymore. The models 37, 38, 39 and 40 correspond to model 13, 14, 15 and 16 of hypothesis 2b. The original regressions for hypothesis 2b show that CFO-audit committee friendship ties have a significant negative effect on the unexplained audit fees and that the CFO-audit committee advice ties have positive effect on the positive discretionary accruals. The ties do not have an effect on the other proxies. The models 30, 31 and 32 show similar results. The FRIENDCFO variable still has a significant negative effect on the UAF proxy. What changed is that the ADVICECFO variable does not add statistically significantly to the prediction of DA_POS anymore, instead the FRIENDCFO variable does. The ties do not have an effect on the other proxies. A comparison of the original results and the robustness checks is provided in table 17.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Actual effect</th>
<th>Robustness Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a/2b</td>
<td>9/13</td>
<td>DA</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>No / No</td>
<td>No / No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>No / No</td>
<td>No / No</td>
</tr>
<tr>
<td>2a/2b</td>
<td>10/14</td>
<td>DA_POS</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>- / No</td>
<td>- / -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>No / -</td>
<td>No / No</td>
</tr>
<tr>
<td>2a/2b</td>
<td>11/15</td>
<td>DA_NEG</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>- / No</td>
<td>- / No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>No / No</td>
<td>No / No</td>
</tr>
<tr>
<td>2a/2b</td>
<td>12/16</td>
<td>UAF</td>
<td>FRIENDCEO/ FRIENDCFO</td>
<td>- / -</td>
<td>- / -</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>ADVICECEO/ADVICECFO</td>
<td>+ / No</td>
<td>No / No</td>
</tr>
</tbody>
</table>

*Table 17: Models Hypothesis 2, Actual Effects and Robustness Checks*

The most important results of the regressions of hypothesis 3 are displayed in table 18. In the appendix in table 31 and 32 the full set of results for the robustness checks of the hypothesis 3a and 3b are presented. The models 41, 42, 43 and 44 correspond to model 17, 18, 19 and 20 of hypothesis 3a. The original regressions for hypothesis 3a show that the interaction variable between the level of individualism and the social ties with the CEO does not have an effect on the proxies of financial reporting quality. Also the social ties between the CEO and the audit committee do not add statistically significantly to the prediction of any of the proxies. The level of individualism has a significant negative effect on the positive
<table>
<thead>
<tr>
<th></th>
<th>Model 42</th>
<th>Model 44</th>
<th>Model 46</th>
<th>Model 48</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA_POS</td>
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<td>0.004</td>
<td>DA_POS</td>
<td>0.004</td>
</tr>
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<td></td>
<td>[0.009]</td>
</tr>
<tr>
<td>IND</td>
<td>0.002</td>
<td>-0.018***</td>
<td>0.004</td>
<td>-0.016***</td>
</tr>
<tr>
<td></td>
<td>[0.011]</td>
<td>[0.006]</td>
<td></td>
<td>[0.009]</td>
</tr>
<tr>
<td>SOCIALCEO_IND</td>
<td>-0.027</td>
<td>-0.011</td>
<td>0.025</td>
<td>0.001</td>
</tr>
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<td></td>
<td>[0.018]</td>
<td>[0.010]</td>
<td></td>
<td>[0.035]</td>
</tr>
<tr>
<td>SOCIALCFO</td>
<td>0.032*</td>
<td>-0.013</td>
<td>0.300***</td>
<td>0.318***</td>
</tr>
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<td>[0.017]</td>
<td>[0.009]</td>
<td></td>
<td>[0.075]</td>
</tr>
<tr>
<td>SIZEAUDIT</td>
<td>0.300***</td>
<td>0.318***</td>
<td>0.300***</td>
<td>0.315***</td>
</tr>
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<td>[0.075]</td>
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<td></td>
<td>[0.074]</td>
</tr>
<tr>
<td>FINEXP</td>
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<td>0.293</td>
<td>0.057</td>
</tr>
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<td>[0.258]</td>
</tr>
<tr>
<td>CEOxCFO</td>
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<td>0.917***</td>
<td>1.946***</td>
<td>0.856***</td>
</tr>
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<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
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<td>[0.000]</td>
<td></td>
<td>[0.000]</td>
</tr>
<tr>
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<td>-0.164***</td>
<td>0.038</td>
<td>-0.165***</td>
</tr>
<tr>
<td></td>
<td>[0.043]</td>
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<td></td>
<td>[0.043]</td>
</tr>
<tr>
<td>ROA</td>
<td>1.046**</td>
<td>0.963**</td>
<td>0.442</td>
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</tr>
<tr>
<td>LEV</td>
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<td>0.031</td>
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</tr>
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<td>[0.015]</td>
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<td>[0.035]</td>
</tr>
<tr>
<td>BIG4</td>
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<td>0.198</td>
<td>0.314</td>
<td>0.312</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
<td>[0.000]</td>
<td></td>
<td>[0.000]</td>
</tr>
<tr>
<td>GNI</td>
<td>0.000</td>
<td>-0.000**</td>
<td>0.000</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>[0.000]</td>
<td>[0.000]</td>
<td></td>
<td>[0.000]</td>
</tr>
<tr>
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<td>11.900***</td>
<td>16.283***</td>
<td>11.976***</td>
</tr>
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<td></td>
<td>[0.809]</td>
<td>[0.801]</td>
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<td>[0.776]</td>
</tr>
</tbody>
</table>

Observations 156 332 156 332
R-squared 0.420 0.512 0.421 0.507

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

Table 18: Robustness Checks Hypothesis 3
and negative discretionary accruals and the unexplained audit fees. The models 42, 43 and 44 show similar results. The SOCIALCEO_IND and SOCIALCEO do not have a significant effect on any of the proxies. On the other hand, the IND variable only adds statistically significantly to the prediction of the UAF proxy. The models 45, 46, 47 and 48 correspond to model 21, 22, 23 and 24 of hypothesis 3b. The original regressions for hypothesis 3b show that the interaction variable adds statistically significantly to the prediction of the positive discretionary accruals. Furthermore, the individualism variable adds statistically significantly to the prediction of the positive and negative discretionary accruals and the unexplained audit fees. The models 46, 47 and 48 show different results. The SOCIALCFO_IND did not add significantly to any proxy. Furthermore, the IND variable only adds statistically significantly to the prediction of the unexplained audit fee proxy. A comparison of the original results and the robustness checks is provided in table 19.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Model</th>
<th>Proxy</th>
<th>Independent variable</th>
<th>Actual Effect</th>
<th>Robustness Check</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>IND</td>
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<td>No / No</td>
</tr>
<tr>
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<td></td>
<td></td>
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</tr>
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<td>No / No</td>
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<td></td>
<td></td>
<td>IND</td>
<td>- / -</td>
<td>No / No</td>
</tr>
<tr>
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<td></td>
<td></td>
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<td>No / +</td>
<td>No / No</td>
</tr>
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<td>No / No</td>
</tr>
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<td>No / No</td>
</tr>
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<td></td>
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</tr>
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<td>20/24</td>
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<td>No / No</td>
</tr>
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<td></td>
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<td>No / No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SOCIALCFO_IND</td>
<td>No / No</td>
<td>No / No</td>
</tr>
</tbody>
</table>

*Table 19: Models Hypothesis 3, Actual Effects and Robustness Checks*
In conclusion, a small ‘UK effect’ is visible when looking at the robustness checks. In all cases that the ‘UK effect’ is visible the significant effects that were found either were still significant or the effect disappeared. In no case did the ‘UK effect’ change the direction of the effects. The effect is mostly visible when looking at the social between the CFO and the audit committee. A reason for this can be that in general, in UK firms CFO’s have a bigger influence on the financial reporting quality compared to CFO’s in other countries. Furthermore, the ‘UK effect’ is also visible in particular in the regressions of hypothesis 3 when looking at the effect of the level of individualism. The results show that the effect of the individualism score is mostly caused by UK firms, since the effect disappears for most proxies when UK firms are removed from the sample. A reason for this is that the UK has the highest individualism score in the sample. The effect of the level of individualism therefore should have a bigger on the financial reporting proxies. This effect is also visible when looking at the interaction variables that were used in this study.
Chapter 5

In this chapter a recap will be given of the most important results and the research question will be answered. After that the most important limitations are discussed.

The goal of this paper is to provide more insight in the relation between social ties between senior management and the audit committee and the financial reporting quality and what the effect of culture is on this relationship, in order to strengthen or weaken the argument for the regulation surrounding the independence of the audit committee. The research question therefore is: What is the effect of social ties between the CEO, the CFO and the audit committee on a firm’s financial reporting quality?

This question is answered by examining the effect of social ties on financial reporting quality, the effect of the different types of social ties and the culture of the country in which the firm resides. Using the insights of previous research it is hypothesized that social ties have a negative effect on the financial reporting quality. Since social ties can influence the independence of the audit committee and therefore has a negative influence on the financial reporting quality. The findings of this study show that in general social ties actually have a positive effect on the financial reporting quality. It lowers the positive discretionary accruals and the unexplained audit fees while also increasing the negative discretionary accruals. A reason for this can be that social ties between senior management and the audit committee actually encourage cooperation and therefore have a positive effect on the collaboration and the communication between the two. Since the audit committee has to collaborate with the CEO and the CFO to ensure the quality, social ties can have a positive effect on the financial reporting quality. The difference with this study and the studies that find a negative effect of social ties between senior management and the audit committee on the financial reporting quality is that those studies examine firms in the US. This study focuses on European firms. This difference in focus might influence the findings.

Furthermore, social ties can be divided into ties based on friendship and ties based on advice. Using the insights of previous research it is hypothesized that social ties based on friendship have a bigger negative effect on financial reporting quality compared to advice ties. The reasoning behind this is that friendship ties are based on affective trust and advice ties are based on cognitive trust. Affective trust is based on emotions towards the partner
and not on the confidence of the partner’s expertise or ability. The trust might venture beyond what is justified in the situation. An audit member therefore might be more forgiving to controversial decision making by a CEO or CFO if a social tie based on friendship exists between them. The findings of this study show that in general friendship ties between the CEO or the CFO and the members of the audit committee have significant bigger effect on the financial reporting quality compared to advice ties. This effect, however, works in the opposite direction as predicted. An increase in the proportion of friendship ties improves the financial reporting quality. A reason for these findings can be that friendship ties enhance the aforementioned collaboration and the communication more than advice ties which, for example, make discussing sensitive issues easier.

The culture of a country is also predicted to have an effect. Hypothesized is that the level of individualism has a negative effect on the effect that social ties have on the financial reporting quality. In collectivistic societies the audit committee member might see the organization as a part of his or her in-group and therefore he are she will protect the interests of the individuals of this in-group regardless of the consequences for the financial reporting quality. In individualistic societies the individual is more concerned with themselves and protecting the financial reporting quality (and therefore the interests of the organization as a whole) is more beneficial for the individual. The findings of this study show that the more individualistic the country in which the firm resides in is, the better the financial reporting quality. Though, there is a ‘UK effect’ which diminishes this effect. Also, it is found that the level of individualism does not affect the effect that social ties have on the financial reporting quality. More research is needed to examine the reason for this effect.

This study contains some limitations and there are some directions for further research. The first limitation is that a limited number of social ties is used. The ties used in this study are based on employment, education and membership of the same charity, leisure club, armed forces, government or medical organization. Next to these ties there are a number of other ways in which people can be socially connected. For example, through the place of birth, place of residence, family ties and so on. Also, individuals can be tied through the ties they have with another individual. Someone can be an old college friend of someone and also be a member of the same charity organization as another individual. The college friend and the charity member are indirectly socially connected. Due to the lack of data
availability it is not possible to include all of these ties in this study. In the future, when this does become possible, this study can be redone to examine the effects of these other ties.

The use of the individualism score is not without flaws. The score measures the level of individualism in a country. The problem is that a firm can be situated in a country because of tax reasons or other reasons. So it is not a typical domestic company and therefore it might not have the same characteristics as domestic companies. The culture of the firm might not coincide with the culture of the country. Furthermore, the place of residence of the firms is taken from the database BoardEx which looks at the residence of the headquarters of the firm. Certain departments can be located in other countries. These countries can have a different culture and level of individualism. These differences are not taken into account in this study and can be used as a direction for further research.

As mentioned, Hofstede developed multiple cultural dimensions which differed per country. In this study one cultural dimension is examined, individualism vs collectivism. Other studies might examine the influence of other cultural dimensions such as power distance, or uncertainty avoidance. For example, in countries with a smaller power distance lower level personnel is more willing to address certain behavior displayed by senior management that has a negative effect on financial reporting quality. Since no other research has been done on this particular topic these studies can add to the current literature. Other shortcomings are that the due to data unavailability only data for one year is used and no control variable for the enforcement of the standards is included.

Overall this study shows that social ties have a positive effect on the financial reporting quality. Friendship ties have a bigger positive effect on the reporting quality than advice ties. Furthermore, in countries characterized more by individualism the financial reporting quality is better than in other countries. Thus, this study does not provide an argument for the inclusion of requirements against the social ties that audit committee members might have with senior management in the accounting standards. If anything, these ties should be encouraged. Also, the enforcement of the accounting standards in general should be more stringent in countries characterized by collectivism since their financial reporting quality seems to be lacking. But the most important point that should be taken from this study is that no matter where you live, friends matter.
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Measure</th>
<th>Type of variable*</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>total assets</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>A_{t-1}</td>
<td>lagged assets</td>
<td>CDV</td>
<td></td>
</tr>
<tr>
<td>Accruals</td>
<td>the earnings before extraordinary items and discontinued operations minus operating cash flows</td>
<td>DV</td>
<td>Eikon</td>
</tr>
<tr>
<td>ADVICECEO</td>
<td>proportion of audit committee members with social ties based on education and past employment with the CEO</td>
<td>IV</td>
<td>BoardEx</td>
</tr>
<tr>
<td>ADVICECFO</td>
<td>proportion of audit committee members with social ties based on education and past employment with the CFO</td>
<td>IV</td>
<td>BoardEx</td>
</tr>
<tr>
<td>AR</td>
<td>Accounts receivable</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>AUDITFEE</td>
<td>the annual audit fee of the firm</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>BIG4</td>
<td>a dummy variable that is 1 if the external auditor of the firm is one of the big 4 auditors</td>
<td>CV</td>
<td>Eikon</td>
</tr>
<tr>
<td>BTM</td>
<td>the book value of equity divided by market value of equity</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>BUSSEG</td>
<td>square root of the amount of business segments of the firm</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>CEOxCFO</td>
<td>a dummy variable that is 1 if social ties exist between the CEO and the CFO of the same firm</td>
<td>CV</td>
<td>BoardEx</td>
</tr>
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<td>COUNTRY</td>
<td>a dummy variable based on the country in which the firm resides</td>
<td>CV</td>
<td>BoardEx</td>
</tr>
<tr>
<td>CR</td>
<td>the current ratio calculated as the current assets divided by the current liabilities</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>DA</td>
<td>discretionary accruals, calculated using formula 3 (page21)</td>
<td>DV</td>
<td>Eikon</td>
</tr>
<tr>
<td>DA_NEG</td>
<td>negative discretionary accruals</td>
<td>DV</td>
<td>Eikon</td>
</tr>
<tr>
<td>DA_POS</td>
<td>positive discretionary accruals</td>
<td>DV</td>
<td>Eikon</td>
</tr>
<tr>
<td>DEBT</td>
<td>the total debt</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>DEC_YE</td>
<td>a dummy variable equal to 1 if the fiscal year does not end in December</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>EMPLS</td>
<td>the square root of the number of employees</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>FINEXP</td>
<td>a dummy variable that is 1 if at least one member of the audit committee has financial expertise</td>
<td>CV</td>
<td>BoardEx</td>
</tr>
<tr>
<td>FRIENDCEO</td>
<td>proportion of audit committee members with social ties based on non-professional activities with the CEO</td>
<td>IV</td>
<td>BoardEx</td>
</tr>
<tr>
<td>FRIENDCFO</td>
<td>proportion of audit committee members with social ties based on non-professional activities with the CFO</td>
<td>IV</td>
<td>BoardEx</td>
</tr>
<tr>
<td>GEOSEG</td>
<td>square root of the amount of geographical segments of the firm</td>
<td>CDV</td>
<td>Eikon</td>
</tr>
<tr>
<td>GNI</td>
<td>the Gross National Income per capita at purchasing power parity of the country in which the firm resides</td>
<td>CV</td>
<td>World Bank</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
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<tr>
<td>----------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INV</td>
<td>the value of the inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IND</td>
<td>individualism score based in Hofstede’s (1991) index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPO</td>
<td>a dummy variable that is 1 if the firm issued an initial public offering during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISSUANCE</td>
<td>a dummy variable that is 1 if the firm issued debt during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>the amount of debt to equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LITRISK</td>
<td>a dummy variable that is 1 if the firm is affiliated with a high risk litigation industry as defined in Francis, Philbrick et al. (1994)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOSS</td>
<td>a dummy variable equal to 1 if the actual earnings per share (EPS) is less than 0</td>
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<td></td>
</tr>
<tr>
<td>PB</td>
<td>the stock price divided by the book value per share where the book value per share is the total assets minus the intangible assets and liabilities divided by the amount of shares outstanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPE</td>
<td>gross property, plant and equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REC</td>
<td>total receivables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REV</td>
<td>revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>the log of the return of assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>the operating income after depreciation scaled by the assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEO</td>
<td>is a dummy variable that is 1 if the firm issued a seasoned equity offering during the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIC</td>
<td>a dummy variable based on the firm’s SIC code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>the amount of outstanding shares multiplied by the current market price of one share</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZEAUDIT</td>
<td>the amount of members the audit committee contains</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIALCEO</td>
<td>proportion of audit committee members with social ties with the CEO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIALCEO_IND</td>
<td>interaction variable between SOCIALCEO and IND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIALCFO</td>
<td>proportion of audit committee members with social ties with the CFO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIALCFO_IND</td>
<td>interaction variable between SOCIALCEO and IND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAF</td>
<td>unexplained audit fees, calculated as the residual of formula 4 (page 21)</td>
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</tr>
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</table>

* IV = Independent Variable, DV = Dependent Variable, CV = Control Variable, CDV = Variable used to calculate Dependent Variable

Table 20: List of all Variables
<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DA</strong></td>
<td>0.014</td>
<td>-0.005***</td>
<td>-0.005*</td>
<td>-0.003***</td>
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<td><strong>DA_POS</strong></td>
<td>[0.021]</td>
<td>[0.002]</td>
<td>[0.002]</td>
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<tr>
<td><strong>Model 1</strong></td>
<td><strong>Model 2</strong></td>
<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DA</strong></td>
<td>0.316</td>
<td>0.415***</td>
<td>0.228**</td>
<td>0.431***</td>
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<td><strong>DA_NEG</strong></td>
<td>[0.760]</td>
<td>[0.057]</td>
<td>[0.100]</td>
<td>[0.033]</td>
</tr>
<tr>
<td><strong>Model 1</strong></td>
<td><strong>Model 2</strong></td>
<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
<td></td>
</tr>
<tr>
<td><strong>FINEXP</strong></td>
<td>-2.264</td>
<td>0.064</td>
<td>0.233</td>
<td>0.326***</td>
</tr>
<tr>
<td></td>
<td>[2.677]</td>
<td>[0.208]</td>
<td>[0.320]</td>
<td>[0.119]</td>
</tr>
<tr>
<td><strong>Model 1</strong></td>
<td><strong>Model 2</strong></td>
<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
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</tr>
<tr>
<td><strong>CEOxCFO</strong></td>
<td>1.314</td>
<td>0.873**</td>
<td>0.907*</td>
<td>1.017***</td>
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<td><strong>Model 1</strong></td>
<td><strong>Model 2</strong></td>
<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SIZE</strong></td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
<td>0.000***</td>
</tr>
<tr>
<td></td>
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<td>[0.000]</td>
<td>[0.000]</td>
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<tr>
<td><strong>Model 1</strong></td>
<td><strong>Model 2</strong></td>
<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
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<tr>
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<td>0.981**</td>
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<td>[0.061]</td>
<td>[0.021]</td>
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<td><strong>Model 2</strong></td>
<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
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<tr>
<td><strong>ROA</strong></td>
<td>6.033**</td>
<td>0.920***</td>
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<tr>
<td></td>
<td>[2.635]</td>
<td>[0.317]</td>
<td>[0.244]</td>
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<td><strong>Model 3</strong></td>
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<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
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<td><strong>BIG4</strong></td>
<td>-1.846</td>
<td>0.835***</td>
<td>1.262***</td>
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</tr>
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<td>[2.171]</td>
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<td>[0.274]</td>
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<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
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<tr>
<td><strong>GNI</strong></td>
<td>-0.000</td>
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<tr>
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<td><strong>Model 2</strong></td>
<td><strong>Model 3</strong></td>
<td><strong>Model 4</strong></td>
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<tr>
<td><strong>Constant</strong></td>
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<td>14.567***</td>
<td>13.580***</td>
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<td>[6.342]</td>
<td>[0.487]</td>
<td>[0.777]</td>
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<table>
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<tr>
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<th>Observations</th>
<th>R-squared</th>
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<td>650</td>
<td>0.077</td>
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<td><strong>Model 2</strong></td>
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<td><strong>Model 3</strong></td>
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<td><strong>Model 4</strong></td>
<td>733</td>
<td>0.508</td>
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Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

*Table 21: Regressions Hypothesis 1a*
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<tr>
<th></th>
<th>Model 5</th>
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<td>DA_POS</td>
<td>DA_NEG</td>
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<td>[0.001]</td>
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Standard Errors in brackets
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Standard Errors in brackets
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Standard Errors in brackets
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Standard Errors in brackets
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Table 25: Regressions Hypothesis 3a
### Table 26: Regressions Hypothesis 3b

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Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

Table 27: Regressions Robustness Checks Hypothesis 1a
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Observations 275  156  119  332
R-squared  0.179  0.416  0.248  0.491

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.01

Table 28: Regressions Robustness Checks Hypothesis 1b
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Observations 275  156  119  332  
R-squared 0.178  0.443  0.354  0.521  

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

*Table 29: Regressions Robustness Checks Hypothesis 2a*
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|                | 275       | 156        | 119        | 332        |
| Observations   |           |            |            |            |
| R-squared      | 0.180     | 0.421      | 0.248      | 0.501      |

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

Table 30: Regressions Robustness Checks Hypothesis 2b
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Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.010

*Table 31: Regressions Robustness Checks Hypothesis 3a*
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Observations: 275  156  119  332
R-squared: 0.180  0.421  0.253  0.507

Standard Errors in brackets
* p<0.10, ** p<0.05, *** p<0.01

Table 32: Regressions Robustness Checks Hypothesis 3b
Sources


