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Founding Family Ownership and its Impact on Earnings Quality

A quantitative study on Swedish public firms

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Abstract

This study examines the relationship between founding family ownership and earnings quality, by using data on companies listed on the Stockholm Stock Exchange between 2009 and 2019. There are two opposing theories as to how family ownership and earnings quality are associated, the alignment effect and the entrenchment effect. We estimate this association with the help of two different proxies for earnings quality, discretionary accruals and timely loss recognition. We find that founding family firms on average are characterized by lower levels of discretionary accruals and timelier recognition of losses, indicating higher earnings quality in family firms than non-family firms. These results are in favor of the alignment effect. Our study contributes to and expands the existing literature on family ownership and earnings quality by applying earnings quality proxies to new geographical settings. Our results confirm the findings of previous research within the field.

Tutor: Katerina Hellström
Keywords: Family ownership, earnings quality, earnings management, discretionary accruals, timely loss recognition

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1. Introduction

This paper aims to study the effects of founding family ownership on the quality of earnings on Swedish listed firms. Founding family ownership represents a significant part of the Swedish economy. Around 25% of listed companies on the main market in Sweden are family firms (Andersson et al, 2018). Founding families also represent a unique type of investor as they have a low degree of diversification and a long-term perspective (Anderson & Reeb, 2003). Furthermore, family ownership has an impact on corporate governance as it can reduce the agency problem between owners and managers, also known as type I agency conflict (Shleifer and Vishny, 1997; Demsetz and Lehn, 1985). Thus, founding family ownership may act to reduce opportunistic managerial behavior at the expense of the owners. However, family firms are instead more exposed to a different agency problem, that between controlling owners and minority shareholders, known as type II agency conflict (Ali et al, 2007). This agency problem opens up for opportunistic behavior that can hurt the minority owners within the company.

An area that is particularly exposed to such opportunistic behavior from owners and management of all firms is financial reporting. Through altering, manipulating, or managing earnings private benefits may be extracted by owners and managers of a firm (Cheng and Warfield, 2005). This is a widespread phenomenon, for example Burgstahler and Dichev (1997) find that 30-44% of firms in the US with small pre-managed losses manipulate earnings to avoid reporting a loss and 8-12% of firms with small income decreases manipulate in order to avoid reporting an earnings decrease. Any altercation of financial reports that widens the gap between the actual underlying economic performance of a firm and the reported performance in the financial statements reduces earnings quality (Dechow, Ge & Schrand, 2010). Earnings quality in turn is of high importance to all investors and creditors as financial reports are fundamental to them in any decision-making process (Dichev et al, 2013).

Given the agency problems associated with various ownership structures and how common earnings management has proven to be, the effect of founding family ownership on earnings quality makes for an interesting topic. Furthermore, increasing the understanding of how earnings quality varies with ownership structure could be beneficial for investors given their dependence on financial reporting. The topic is also especially puzzling as there are two opposing effects with regards to the impact of concentrated ownership structures on

opportunistic behavior in general and the impact of family ownership in particular. The entrenchment effect predicts that founding family firms would be more inclined to manipulate earnings whereas the alignment effect predicts the opposite. Previous research find support for both effects indicating the need to further gather empirical evidence (e.g., Wang, 2006; Fan and Wong, 2002; Francis, Schipper & Vincent, 2005).

The entrenchment effect is based on the view that concentrated ownership incentivizes the controlling owners to expropriate wealth from minority shareholders (Shleifer & Vishny, 1997). Given their ownership stake family members tend to hold high managerial positions as well as seats on the board which may result in inferior corporate governance and internal control in family firms (Wang, 2006). Concentrated ownership is also associated with reduced transparency towards outside investors (Fan and Wong, 2002). The implication of this is that family-owned firms are incentivized and have the ability to engage in earnings manipulation and should, therefore, report lower quality earnings. The alignment effect, on the other hand, is based on the view that founding families have incentives to not pursue any private benefits at the expense of other shareholders. Their long-term presence in the firm is a major part of reducing the motives to pursue short-term private benefits. Furthermore, in the interest of preserving family name and legacy, founding families will be more cautious of opportunistic behavior that could result in public scandals (Anderson & Reeb, 2003). Implied in the alignment effect is also the argument presented by Demsetz & Lehn (1985) that concentrated ownership offers superior monitoring capabilities compared to dispersedly owned firms. Thus, the alignment effect suggests that founding family-owned firms should report higher quality earnings.

Family ownership and earnings quality are both widely studied topics, and there have been several prominent studies as to how they interact (e.g., Wang, 2006; Fan and Wong, 2002; Ali et al 2007). However, studies of this kind have been carried out mainly in American, East Asian as well as Italian settings, creating the need to further explore the topic in a northern European setting, in this case Sweden. Additionally, investor protection and legal settings can impact the level of earnings quality (Wang, 2006) which further indicates the importance of studying the topic in different countries and legal systems. Furthermore, there is not one established model or approach which constitutes the base for measuring earnings quality. Instead, there exists a wide array of proxies based on different properties of earnings used to estimate earnings quality. Two different proxies don't necessarily have to point in the same direction, for example

managerial ownership is associated with lower earnings quality using the proxy timely loss recognition, but with higher quality using the proxy discretionary accruals (Dechow, Ge and Schrand, 2010). This indicates that different proxies measure fundamentally different features of earnings and that further expanding the literature serves an important purpose.

With this in mind, we have formulated our research question to be:

Does founding family ownership affect the level of earnings quality?

To answer this question, we study the two aforementioned proxies for earnings quality, discretionary accruals and timely loss recognition. Discretionary accruals refer to non-necessary accruals made to alter earnings, while timely loss recognition captures the degree of accounting conservatism by looking at the realization of losses. By measuring two different proxies we hope to provide more nuanced results considering that any one proxy can't capture all aspects of earnings quality. Discretionary accruals are commonly used when estimating earnings quality whereas family-ownership and timely loss recognition to the best of our knowledge haven't previously been looked at in a Swedish setting. With this study we therefore wish to contribute to and expand the literature on family ownership and its impact on earnings quality.

Our results indicate that founding family ownership is associated with higher earnings quality. The analysis of discretionary accruals shows that family-owned firms have lower levels of discretionary accruals. The result is significant and in line with previous research such as Wang (2006), Ali et al (2007), and Cascino et al (2010). This result supports the alignment effect and suggests that the incentives of founding family owners are geared towards not engaging in earnings manipulation using accruals. Our timely loss recognition-analysis indicates higher earnings quality among family firms as they seem to recognize losses timelier than non-family firms. However, this result is only significant at the 10% level and should thus be interpreted with some caution. The result goes in line with previous research (Wang, 2006; Cascino et al, 2010).

The coming part of this study will be divided as follows. Section 2 will be dedicated to elaborating on theory and previous studies in the field as well as taking a closer look at the subject of earnings quality. Section 3 will go through the method for the study, which will constitute the base for the calculations on earnings quality. In section 4 there will be a presentation of the empirical findings, a description and discussion about the data, and robustness tests on the results received. A discussion of the results makes up section 5. Finally, section 6 summarizes the study.

2. Theory & Literature

The following section is dedicated to delving deeper into the theories surrounding ownership structure and earnings quality. There will also be a review of the previous studies within the field.

2.1 Agency theory

Jensen and Mecklin (1976) discuss the premises of agency costs and its consequences with an elaborate view on the tension that exists between the principal and the agent. Jensen and Mecklin mean that, if both parties within this relationship are trying to maximize their utility (with an assumption of utility maximization) several aspects are indicative of the fact that there will be various situations where the agent will not act in the best interest of the principal. Since agency conflicts are common, there are ways for the principal to increase the incentives for the agent to act in line with the principal's interests, such as investing in monitoring costs to limit the agent from acting aberrantly. In most cases, these costs will be paid to shift the incentives.

This type of agency problem is most often described in an owner to manager setting, where managers utilize information asymmetry to expropriate wealth from owners, referred to as type I agency problem. Family ownership may act to reduce this agency conflict due to the concentrated ownership (Demsetz & Lehn, 1985). There is, however, also a type II agency problem, which firms with concentrated ownership are more exposed to (Ali et, 2007), that between controlling and minority shareholders. Shleifer & Vishny (1997) recognize that controlling owners (in this case families) act in their own interests which aren’t necessarily the same as those of the smaller shareholders. Morck et al (1988) find that non-value maximizing behavior is greater in firms with large management ownership which isn’t uncommon in family

firms. Controlling owners may for example hold on to positions within a company for a longer period than optimal and may be less incentivized to perform because of the job security that comes with control (Morck et al, 1988). Furthermore, McConnell & Servaes (1990) find evidence that controlling owners' ability to block value-enhancing takeovers represent a significant cost to minority shareholders.

The type II agency problem is especially important in a dual share class setting such as Sweden since voting rights and cash flow rights can be separated. Dual class shares have a distinguishing characteristic as they deviate from the "one share one vote" principle. A consequence of this is that it enables founding families to increase control over the firm without necessarily increasing their cash-flow rights in the company (Ehrhardt and Nowak, 2003). Type II agency problems tend to increase when voting and cash flow rights are more separated (Fan and Wong, 2002). The reason for this is that the more cash flow rights that controlling owners have, the larger part of the cost they have to bear for any private benefits pursued. Thus, a large wedge between cash flow rights and voting rights enables and may incentivize opportunistic behavior. Dual class shares are especially common among family firms. Francis, Schipper and Vincent (2005), identified family firms as the foremost users of dual class shares in the US.

2.2 Entrenchment effect

The entrenchment effect states that concentrated ownership in a given firm will lead to the controlling owners expropriating wealth from smaller shareholders (Shleifer and Vishny, 1997). As the ownership concentration is high within a family-owned company, this implies that founding families have increased incentives to take advantage of other shareholders for their own gain (Wang, 2006). This entrenchment could have several reasons. One potential source is inferior corporate governance and monitoring due to nepotism in family firms (Wang, 2006). Another is increased information asymmetry between founding families and minority shareholders. Through concentrated ownership, decision-making can be allocated to persons with specific knowledge which may limit information flow to outsiders (Fan and Wong, 2002). Information asymmetry in firms has been suggested to lower the transparency of financial disclosures (Francis, Shipper, and Vincent, 2005). Furthermore, there may be a reduced willingness to supply high-quality earnings in founding family firms as the family members through their ownership stake tend to occupy board and management positions. Thus, they have access to inside information and aren't reliant on financial reporting. The entrenchment effect, therefore, predicts that family firms would report lower quality earnings than non-family firms.

However, as the entrenchment effect isn't unknown to users of a financial statement such as creditors, analysts, and outside investors they may demand better earnings quality from family firms than they do from non-family firms. This in turn could create an offsetting effect contributing to family firms instead reporting higher earnings quality. Ball and Shivakumar (2005) indicate that the market demand for high-quality earnings plays a big part in whether or not they are provided. Thus, Wang (2006) suggests that, if users of financial statements believe family firms have worse corporate governance than non-family firms, they might adjust contracting terms to better protect against poor earnings quality. The consequence of this would be that family firms are incentivized to deliver higher quality earnings to receive more favorable contracts and lower their cost of capital.

2.3 Alignment Effect

The alignment effect states, contrary to the entrenchment effect, that the interests of minority shareholders and controlling families are aligned because of the large amounts of stock owned by the families and their long-term presence in the firm (Wang, 2006). The implication of this is that founding families are less inclined to pursue private benefits at the expense of other shareholders through manipulating earnings. Anderson & Reeb (2003) suggest that founding families have incentives to not divert the cash flows for personal gain, due to the willingness to build upon a good reputation and preserve the family legacy. Gomes (2000) finds that this view has credibility since the controlling owners are major shareholders themselves and extracting private benefits will entail a great discount on their part. The wealth of founding families is closely tied to the value and welfare of their firm which means that founding families have strong incentives to monitor managers and employees (Anderson & Reeb, 2003). Further support for this comes from Anderson et al (2003) where evidence is presented that founding family-owned firms are associated with a lower cost of debt than non-family firms. This is indicative of effective corporate governance.

As earnings management is associated with a short-term perspective and may even prove very costly in the long run, founding families' inclination to preserve family reputation and wealth may prevent them from engaging in earnings management (Wang, 2006). At the same time, the alignment effect predicts that superior corporate governance also enables the owners to prevent opportunistic earnings management from high-level managers. However, as with the entrenchment effect, the demand for earnings quality will play a part in whether or not high-

quality earnings are delivered. If creditors and investors expect family firms to have superior corporate governance, they may devise contracting terms less protective against poor earnings quality. In turn, this could reduce incentives for family firms to report high-quality earnings as they may be able to report lower quality earnings without affecting the cost of capital (Wang, 2006).

2.4 Earnings Quality

The concept of earnings quality is fundamental in accounting and serves an important purpose, not least to equity investors and creditors, but also to managers running the company as they all rely on reported earnings in making decisions (Dichev et al, 2013). Still, earnings quality does not have a clear-cut definition and there are many different methods used for estimating it. With that said, Dechow, Ge, and Schrand (2010) define earnings quality as follows:

"*Higher quality earnings provide more information about the features of a firm's financial performance that are relevant to a specific decision made by a specific decision-maker.*"

Dechow, Ge, and Schrand (2010) further note three important things about this definition. First, the definition implies that earnings quality is dependent on its decision relevance. Second, the earnings quality depends on the reported numbers' informativeness of the firm's financial performance, much of which is unobservable. Finally, the quality is also determined by the accounting system's ability to measure financial performance.

Dichev et al (2013) surveyed 169 CFOs from public American companies about their view on earnings quality. They found that to the CFOs, the key aspect of high-quality earnings is that they are sustainable and repeatable. Specifically, they believe that important parts of this include consistent accounting choices, backed by actual cash-flows and absence of one-time items. Earnings lose these aforementioned qualities if they are managed. A frequently adopted definition of earnings management from Healy and Wahlen (1999) states that:

"Earnings management occurs when managers use judgement in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers."

The reasons for managers engaging in earnings management are many. Burgstahler and Dichev (1997) find evidence that firms manage earnings to avoid reporting earnings decreases and losses. Equity incentives for managers are also associated with increased earnings management. Manipulating earnings allows managers to generate bigger bonuses through stock options (Cheng and Warfield, 2005). Furthermore, income-increasing accounting procedures may be undertaken to avoid breaching debt covenants (Sweeney, 1994).

As alluded to earlier, there are many different properties of earnings that are studied to detect earnings management and estimate earnings quality. Dechow, Ge, and Schrand (2010) provide a review of the state of the literature. Earnings persistence is studied by looking at changes in earnings, if they deviate a lot year to year, it is indicative of lower quality. Similarly, earnings smoothness can be studied by comparing deviations in earnings to deviations in cash flows, a higher ratio indicates lower quality. Estimating discretionary accruals, or non-necessary subjective accruals, is a commonly used proxy, a higher value of the discretionary accruals indicates lower quality earnings. A desirable trait of accounting is conservatism and a way to estimate it is by studying timely loss recognition, more timely loss recognition suggests higher quality. Finally, many studies elect to estimate earnings quality through an earnings response coefficient which studies the relationship between stock price returns and reported earnings. This proxy is known as earnings informativeness, and a stronger correlation indicates higher quality. Further discussion of discretionary accruals and timely loss recognition follows below as these are the proxies used in this study.

2.4.1 Discretionary Accruals

The total amount of accruals made by a given firm in a year can be divided into discretionary and non-discretionary accruals. Managers running firms must use their judgement in making a heap of decisions that affect the financial reporting, for example accounting methods and timing of transactions. The accrual-based accounting system thus provides a lot of wiggle room and opportunities for managers to alter financial reports (Healy and Wahlen, 1999). This makes the usage of discretionary accruals a key feature of managing earnings and therefor earnings quality is considered to be higher when the level of discretionary accruals is lower.

It is not clear from the outside what value of accruals belong to each category; hence several different models have been devised to attempt to capture the discretionary part of a firm's accruals. Since Jones' (1991) accruals model, standard practice has been to perform a

regression of total accruals on variables aimed at estimating the non-discretionary part. The standard deviation or absolute value of the error term of the regression then signifies the level of discretionary accruals. The absolute value is used since both negative- and positive manipulations are considered to decrease the earnings quality in corresponding manners. (Dechow, Ge and Schrand, 2010; Wang, 2006). In section 3.3, we provide an overview of the most commonly used models for estimating the discretionary part of a firm's accruals and present the model applied in this study.

2.4.2 Acounting Conservatism and Asymmetric Timeliness of Earnings

Basu (1997) defines accounting conservatism as "resulting in earnings reflecting 'bad news' more quickly than 'good news'". This conservatism causes there to be an asymmetry in financial reporting between how losses and gains are recognized. Basu (1997) finds evidence that negative changes in earnings are much less persistent than their positive counterpart. As an example, a firm should recognize write-downs of physical assets to better portray the impairment or obsolescence of the underlying asset, but in cases of an increase in value of the asset, there should not be a revaluation upwards. The implication of this is that the loss is recognized immediately and should thus reverse the following year, while the gain will be spread out over several years. Good news tends to require a higher degree of verification before it can be realized, which is regularly the reason that they become smoothed out over a longer period.

If transitory loss components such as the example above aren't recognized in a timelier manner that would indicate that accounting conservatism isn't practiced and/or that earnings are managed with the purpose of producing particular earnings numbers. Earnings quality research has mainly focused on the practice of timely loss recognition, rather than conservative gain recognition. This asymmetric focus stems from the higher value that insight into loss recognition provides to investors. For example, to obtain favorable loans firms are incentivized to disclose economic gains, but not economic losses. Thus, there is a demand from investors for timely loss recognition and for knowledge of the extent to which it is practiced (Ball & Shivakumar, 2005). Building on this, timely loss recognition is important because it increases the usefulness of financial statements to managers and creditors. It makes managers less likely to pursue and continue negative NPV-investments and it facilitates debt-pricing and contracting (Ball & Shivakumar, 2005). As for discretionary accruals we will, in section 3, present different

models used to estimate timely loss recognition, and provide the reasoning for our chosen model.

2.5. Prior studies

Previous research within the field of family ownership and earnings quality provide support for both the entrenchment and the alignment effect. Beginning with support for the entrenchment effect, Fan and Wong (2002) find evidence that concentrated ownership leads to lower earnings informativeness in a study conducted in seven East Asian economies. The study looked at 3752 observations between 1991 and 1995 and the authors provide two explanations for the results. Firstly, minority shareholders expect the controlling owners to entrench themselves and therefore the credibility of the earnings is lower. Secondly, rent-seeking firms, prevalent in the region, wish to conceal information from the public and competitors which is facilitated by concentrated ownership.

Further support for the entrenchment theory comes from Prencipe and Bar-Yosef (2011). Their study focuses on earnings management in family firms in Italy in relation to board independence, which is associated with lower earnings management. Through studying discretionary accruals, they find that the impact of board independence on earnings management is smaller in family firms than in non-family firms. The effect becomes stronger if the CEO is a family member. Further, Prencipe et al (2008) find support that family firms do engage in earnings management, by studying Italian listed firms. However, the earnings management that family-owned firms engage in is different to that of non-family firms. Non-family firms are more concerned with earnings smoothness whereas family firms are more concerned about avoiding debt-covenant breaches.

Studies finding results in line with the entrenchment effect have also been performed in the US. Bardhan et al (2015) study the relationship between family ownership and the quality of internal control over financial reporting. Their findings indicate that family firms have more material weakness in their internal control over financial reporting than non-family firms. The authors find that this result is driven by family firms that use dual class share structures. Francis, Schipper, and Vincent (2005) study the effect of dual class shares on earnings informativeness and find a negative correlation. This could be an indication in favor of the entrenchment effect as most dual class firms are family-owned.

Support for the alignment effect can be found in Wang (2006) which investigates the effect of founding family ownership on earnings quality by looking at S&P 500 firms between 1994 and 2002. In the study, Wang uses three proxies for earnings quality: abnormal accruals, earnings informativeness, and timely loss recognition. Wang finds significant evidence for all three proxies that founding family ownership is associated with higher earnings quality. The results are also robust for different definitions of family ownership: a binary variable, a continuous variable, and whether it is a founder-CEO, founding family descendant CEO, or hired outsider as CEO.

Wang's results are confirmed in an article by Ali et al (2007) which studies the impact of family ownership on corporate disclosures and earnings quality on S&P500 firms. They use discretionary accruals, predictability of future cash flows, earnings persistence, and earnings informativeness as proxies for earnings quality. The authors find that family firms report higher quality earnings and are more likely to warn about poor earnings compared to non-family firms.

Support for higher earnings quality in family firms compared to non-family firms is also given by Cascino et al (2010). The study looks at this relationship in the Italian setting and finds, through investigating a variety of proxies, significant evidence. Similarly, Boonlert-U-Thai and Sen (2019) investigate family ownership's impact on earnings quality in the Thai market, using persistence and discretionary accruals as proxies, and find that family firms are associated with higher quality financial reporting.

2.6. Hypothesis

The conflicting views given by the entrenchment and alignment effect suggest that the impact of founding family ownership on earnings quality is an empirical question. Although the previous studies that we have identified find support for both effects, they also provide some guidance with regards to our own study. Zooming in on the studies that directly look at the effect of concentrated or family ownership on earnings quality through the use of proxies, a trend emerges (Fan & Wong 2002; Wang, 2006; Ali et al, 2007; Cascino et al, 2010; Boonlert-U-Thai, 2019). Most of the studies find that concentrated or family ownership is associated with higher earnings quality. However, as previously mentioned, the institutional setting is of great importance to the supply of earnings quality. East Asia is an area with weak investor protection and a low degree of transparency in its financial reporting (Wang, 2006), thus the results of Fan and Wong (2002) won't necessarily apply to the Swedish setting. We would

expect our results to be more in line with those observed in the US and Italy. Therefore, our hypothesis is as follows:

H1: *Founding family ownership is associated with a higher level of earnings quality than non-family ownership.*

3. Method

In this section our methodological approach is presented. We look closer at our definition of family ownership, our data sampling as well as the models used to estimate earnings quality.

3.1 Definition of founding family ownership

To conduct a study on family-owned companies, a definition of family ownership must first be established. The definition used in this study is greatly influenced by Andersson and Reed (2003). The following must hold in order to be viewed as a family firm: the company must be founded by the family, simultaneously as the family owns more than 10 percent of the voting power within the firm and has at least one of its members on the board of directors.

To receive a value for family ownership, we construct a binary (dummy) variable undertaking the value one if the above-mentioned criteria are fulfilled and zero otherwise. Consistent with previous studies (Wang, 2006; Andersson & Reeb,2003), a binary variable creates a concise distinction between the family-owned and non-family-owned companies and their observed level of earnings quality.

3.2 Data collection and sampling

This study is based on listed companies on the main market in the Stockholm Stock Exchange between 2009 and 2019. The rationale behind the chosen time period lies in that it provides the study with enough data to receive sufficient information to generate distinctions between the company structures. All data regarding ownership structure and board involvement was collected through the database Holdings with some supplementary information gathered from company websites and reports. Since the data was collected manually through the database, there is a risk to miss important information or misinterpret the data, which would contribute to a misalignment from reality. To tackle this issue, all the data was looked at twice as well as interpreted by both authors contributing to a more precise measure.

From Holdings database, we extracted a list of all Swedish companies listed on the main market in Stockholm between 2009 and 2019 and arrived at 361 unique companies. With the help of ISIN-codes, we extracted financial data from S&P Compustat Global on these companies. Unfortunately, S&P Compustat was not able to provide data on all these companies, 52 of them were completely missing which meant we had 309 companies. Given the nature of our analysis (demonstrated in 3.3), we need the companies to have been listed on the main market for at least three years during this period. This resulted in the exclusion of 19 companies. Furthermore, in line with previous research, 51 banks, insurance, real estate, and other financial companies were excluded (sic code: 6000-6999). This gave us a total of 239 companies to study. Of these 239 companies, 49 were identified to be family companies, this amounts to 25,78%.

In table 1 we provide further information on the data sampling process. Due to the nature of the models used, we are required to use two different datasets, one for each analysis. The discretionary accruals analysis is based on observations between 2010 and 2018, because all observations are dependent on data from t-1 as well as t+1. The dataset used to analyze timely loss recognition contains observations from 2011-2019 since these observations are dependent upon data from t-1 and t-2.

With regards to the observations in each dataset, they will differ as well due to the different variables used in each regression. In line with previous research (Wang, 2006; Cascino et al, 2010) revenue growth is controlled for in the discretionary accrual analysis but not in the timely loss recognition analysis. For observations where firms have reported revenue of zero it is not possible to receive a number for revenue growth. This results in 27 observations being excluded from the discretionary accruals analysis that are included in the timely loss recognition analysis.

Table 1: Sample Description

Panel A: Number of Companies

Observed companies listed on the main market in Sweden (2009-2019)	361
Less firms without any financial data available in compustat	52
Less financial firms (sic code: 6000-6999)	51
Less firms listed less than 3 years	19
Total number of companies after exclusions	239
Observed non-family companies	190
Observed family-owned companies	49
Percentage of family-owned companies	25,78%

Panel B: Observations, Discretionary Accruals analysis (2010-2018)

Total firm-year observations	1 614
Less observations with missing revenue growth	27
Firm-year observations in test	1 587

Panel C: Observations per year, Discreationary Accruals analysis

Year	Non-family firms	Family firms	Total	Percentage of family firms
2010	113	36	149	24,16%
2011	115	36	151	23,84%
2012	129	40	169	23,67%
2013	129	40	169	23,67%
2014	131	39	170	22,94%
2015	136	40	176	22,73%
2016	152	39	191	20,42%
2017	161	43	204	21,08%
2018	166	42	208	20,19%
Sum	1232	355	1587	22,37%

Panel D: Observations, Timely Loss Recognition analysis (2011-2019)

Firm-year observations in test	**1614**

By year:

Year	Non-family firms	Family firms	Total	Percentage of family firms
2011	116	36	152	23,68%
2012	118	36	154	23,38%
2013	132	40	172	23,26%
2014	133	40	173	23,12%
2015	134	39	173	22,54%
2016	138	40	178	22,47%
2017	155	39	194	20,10%
2018	164	43	207	20,77%
2019	169	42	211	19,91%
Sum	1259	355	1614	22,00%

3.3 Empirical Models

In the coming subsections, we will describe in detail the models that we use to estimate earnings quality and to evaluate the impact of founding family ownership. Each model is designed to estimate a certain proxy of earnings quality. As previously alluded to, the two proxies that we have elected to study can be estimated with the help of several different models. Dechow, Ge & Schrand (2010) provide an overview of the most commonly used models to estimate discretionary accruals. For all these three models, the residual (ε_t) is used as a measurement tool to detect the level of discretionary accruals:

- Jones (1991) explains accruals by using a function of revenue growth and amount of plant property and equipment. All the variables which are presented below are scaled by total assets.

$$Acc_t = \propto + \beta_1 \Delta Revenue + \beta_2 PPE_t + \varepsilon_t$$

- Modified Jones model (Dechow et al, 1995) is an adjustment to the Jones model. Dechow et al (1995) excludes growth in credit sales for those years that are observed to be manipulation years. All variables are scaled by total assets.

$$Acc_t = \propto + \beta_1 (\Delta Revenue - \Delta REC_t) + \beta_2 PPE_t + \varepsilon_t$$

- Dechow and Dichev (2002) use a cash flow-based approach and model accruals as a function of past, present and future cash flows. Change in working capital is the dependent variable used to estimate accruals. All variables are scaled by total assets.

$$\Delta WC = \propto + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \varepsilon_t$$

With regards to timely loss recognition there are mainly two models used to estimate this proxy (Dechow, Ge & Schrand, 2010). Both these models are provided by Basu (1997) but are constructed in different ways:

- The first model, known as the reverse earnings returns-regression, assumes that stock returns reflect earnings losses. RET_t are the stock returns at time t and D is a dummy variable that assumes the value one if $RET_t < 0$. A higher β_1 is interpreted as more timely loss recognition.

$$Earnings = \propto_0 + \propto_1 * D_t + \beta_0 * RET + \beta_1 * D_t * RET_t + \varepsilon_t$$

- The second model is based on changes in net income (ΔNI_t) where $D\Delta NI_{t-1}$ is a dummy variable that assumes the value one if $\Delta NI_{t-1} < 0$. If losses are recognized in a timelier manner than gains, Basu expects $\beta_3 < 0$. This is because losses that are fully recognized as they occur tend to reverse in the following period (Basu, 1997).

$$\Delta NI_t = \beta_0 + \beta_1 * \Delta NI_{t-1} + \beta_2 * D\Delta NI_{t-1} + \beta_3 * D\Delta NI_{t-1} * \Delta NI_{t-1} + \varepsilon_t$$

3.3.1 Discretionary Accruals Analysis

For our analysis, we adopt Dechow and Dichev's (2002) accruals model adjusted by Ball and Shivakumar (2006). The reason for this is that we want to incorporate the loss recognition aspect associated with accruals and its impact on earnings, which is the adjustment made in the latter model. Ball and Shivakumar (2006) mean that the original linear discretionary accruals model misses a fundamental part when analyzing the essence of accruals, and that is the asymmetrical sensitivity of news regarding earnings - that is, "bad news" regarding future earnings oftentimes has a bigger effect on current accruals in comparison to "good news". Due

to the above described neglection of the asymmetry in sensitivity in the model introduced by Dechow and Dichev, we have decided to use the adjusted model by Ball and Shivakumar. The model used in this study to estimate discretionary accruals is therefore:

$$ACC_t = \alpha_0 + \alpha_1 CFO_t + \alpha_2 CFO_{t-1} + \alpha_3 CFO_{t+1} + \alpha_4 DCF_t + \alpha_5 DCF_t CFO_t + \varepsilon_t$$

Where:

$ACC_t =$ Total amount of accruals at time t, scaled by average total assets. Defined as net income before extraordinary expenses minus operating cash flow at time t.

$CFO_t =$ Operating cash flow at time t, scaled by average total assets.

$CFO_{t+1} =$ Operating cash flow at time t+1, scaled by average total assets.

$CFO_{t-1} =$ Operating cash flow at time t-1, scaled by average total assets.

$DCF_t =$ Has a value of 1 if the change in cash flows at time t is negative, otherwise zero.

$\varepsilon_t =$ Error term.

The term $\alpha_5 DCF_t CF_t$ has the role of capturing if the firm made economic losses during the year, and this is the added dummy from Ball and Shivakumar's formula contributing to the nonlinearity discussed above. The error term (ε_t) has the purpose of capturing the value of accruals that aren't necessary but made to alter the reported earnings. This error term is what is considered to be the discretionary accruals which constitutes the base for estimating earnings quality. The value of this error term is measured by its absolute value since there is no distinction between earnings management generating higher or lower earnings. A high absolute value on the error term will indicate a higher level of earnings management and, thus, lower quality of earnings. To estimate the impact of founding family ownership the following regression is performed:

$$DA_t = \delta_0 + \delta_1 * FamOwn_t + \delta_2 * Size_t + \delta_3 * Lev_t + \delta_4 * ROA_t + \delta_5 * Growth_t + \delta_6 Loss_t + \delta_7 * LargeOwner_t + \delta_8 * Dual + industry\ fixed\ effects + \varepsilon_t$$

$DA_t =$ Absolute value of discretionary accruals at time t. Scaled by average total assets at time t.

$FamOwn =$ Binary variable assuming the value of one if it's a family firm, zero otherwise.

$Size_t =$ Natural log of total assets at time t.

$Lev_t =$ Total liabilities divided by total assets at time t.

$ROA_t =$ Net income at time t divided by average total assets at time t.

$Growth_t =$ Revenue growth rate at time t.

$Loss_t =$ Assumes the value one if the firm has made a loss.

$LargeOwner_t =$ Assumes the value one if the largest owner of votes at time t is not a family member and has over 10% of the votes.

$Dual_t =$ Assumes the value one if there are different share classes, otherwise zero.

$industry\ fixed\ effects =$ Dummy variables based on two digit SIC-codes.

If the coefficient on FamOwn (δ_1) is positive, it would imply that family firms are associated with higher levels of discretionary accruals and a lower level of earnings quality and vice versa. In line with our hypothesis, we expect to receive a negative coefficient on family ownership. As per previous literature (Wang, 2006; Ali et, 2007) we include control variables for firm size (*Size*), bankruptcy risk (*Loss, Lev*), growth (*Growth*), and profitability (*ROA*). Furthermore, concentrated ownership impacts corporate governance which can affect earnings quality as per the entrenchment and alignment effect, thus we have included a control variable for concentrated ownership (*LargeOwner*). Dual share classes (*Dual*) are also considered as they have been associated with lower earnings quality (Francis et al, 2005). Lastly, we include dummy variables based on two-digit SIC-codes to control for industry fixed effects. The amount of accruals made and how earnings management is performed can differ across industries (Dechow, Ge & Schrand, 2010). Below there is a presentation of the signs that we are expecting to receive for the respective variables. A negative sign would indicate that the variable contributes to a decreased level of discretionary accruals, and vice versa for a positive sign.

We expect the coefficient on *Size* to be negative as market demand for high earnings quality impacts the supply (Ball & Shivakumar, 2005), and we expect this demand to be greater for firms with more assets that affect a larger part of the economy. The coefficient on *Lev* is expected to be positive as firms use earnings management to fulfill debt covenants (Prencipe

et al, 2008). Burgstahler and Dichev (1997) find that earnings management is used to avoid reporting poor results, and thus we expect *Loss* to increase the level of discretionary accruals in the firm and, therefore, have a negative coefficient. Following Demsetz and Lehn (1985) who argue that concentrated ownership can improve corporate governance as well empirics from Wang (2006), *Largeowner* is expected to decrease the level of discretionary accruals in the firm and, thus, have a negative coefficient. Considering the findings of Francis et al (2005) mentioned above, we expect the coefficient on *Dual* to be positive.

Discretionary Accruals	**Exp. sign on the coefficient**
Famown	-
Size	-
Lev	+
ROA	?
Growth	?
Loss	+
Largeowner	-
Dual	+
_cons	?

3.3.2 Timely Loss Recognition

To estimate the impact of founding family ownership on timely loss recognition we apply Ball and Shivakumar's (2005) adaptation of Basu's (1997) second model. We choose this model because Basu's (1997) first model has been criticized over its ability to capture timely loss recognition (Dietrich et al, 2007) and requires making the strong assumption that the market efficiently reflects earnings losses in stock returns. Basu's second model doesn't require any such assumption as it is based solely on accounting numbers. The model looks at changes in net income at different points in time to see whether a decrease at time t-1 reverts back at time t, as this would indicate timely recognition of losses. The lower the reversal of income decreases for a given firm are, the less timely their loss recognitions are, which indicates a lower level of earnings quality.

$$\Delta NI_t = \beta_0 + \beta_1 * \Delta NI_{t-1} + \beta_2 * D\Delta NI_{t-1} + \beta_3 * D\Delta NI_{t-1} * \Delta NI_{t-1} + \beta_4 * FamOwn_t + \beta_5 * \Delta NI_{t-1} * FamOwn_t + \beta_6 * D\Delta NI_{t-1} * FamOwn_t + \beta_7 * D\Delta NI_{t-1} * \Delta NI_{t-1} * FamOwn_t + \beta_8 * Size_t + \beta_9 * \Delta NI_{t-1} * Size_t + \beta_{10} * D\Delta NI_{t-1} * Size_t + \beta_{11} * D\Delta NI_{t-1} * \Delta NI_{t-1} * Size_t + \beta_{12} * Leverage_t + \beta_{13} * \Delta NI_{t-1} * Leverage_t + \beta_{14} * D\Delta NI_{t-1} * Leverage_t + \beta_{15} * D\Delta NI_{t-1} * \Delta NI_{t-1} * Leverage_t + \beta_{16} * LargeOwner_t + \beta_{17} * \Delta NI_{t-1} * LargeOwner_t + \beta_{18} * D\Delta NI_{t-1} * LargeOwner_t + \beta_{19} * D\Delta NI_{t-1} * \Delta NI_{t-1} * LargeOwner_t + \beta_{20} * Dual_t + \beta_{21} * \Delta NI_{t-1} * Dual_t + \beta_{22} * D\Delta NI_{t-1} * Dual_t + \beta_{23} * D\Delta NI_{t-1} * \Delta NI_{t-1} * dual_t + industry\ fixed\ effects + \varepsilon_t$$

Where (the other variables are previously defined):

ΔNI_t = Change in net income before extraordinary items at time t, scaled by average total assets.

ΔNI_{t-1} = Change in net income before extraordinary items at time t-1, scaled by average total assets.

$D\Delta NI_{t-1}$ = Dummy variable, one if $\Delta NI_{t-1} < 0$.

If accounting conservativism is practiced and economic gains are recognized in an untimely manner, then the economic gains are viewed as persistent and will, therefore, reverse to a lesser extent. This would result in the coefficient on ΔNI_{t-1}, (β_1), to be equal to zero since the change in net income should persist. As we expect loss components to be recognized in a timelier fashion than gains, we thus expect the coefficient on $D\Delta NI_{t-1} * \Delta NI_{t-1}$, (β_3), to be negative. To investigate the incremental effect of family ownership relative to non-family firms on the timeliness of loss recognition, the coefficient $D\Delta NI_{t-1} * \Delta NI_{t-1} * FamOwn_t$, (β_7), is used. If β_7 assumes a negative value, that indicates that family firms have a timelier recognition of losses than non-family firms and thus higher earnings quality. Similarly, if β_7 assumes a positive value it would indicate that family firms have lower earnings quality than non-family firms. The reason for looking specifically at the coefficient on $D\Delta NI_{t-1} * \Delta NI_{t-1} * FamOwn_t$ is that the variable isolates the cases in which family firms have had a negative income change at t-1 and gives us the value of that change. The model attempts to explain income changes at time t, thus, a negative coefficient on $D\Delta NI_{t-1} * \Delta NI_{t-1} * FamOwn_t$ indicates that negative income changes are less persistent for founding family firms.

As for the discretionary accruals model, we will below present the expected signs for the TLR-model as well. Due to the nature and complexity of the model, as well as lack of theoretical guidance as to how the variables interact with timely loss recognition, we cannot make any predictions other than those mentioned above.

Timely Loss Recognition	**Exp Sign on the coefficient**
ΔNI_(t-1)	0
DΔNI_(t-1)	?
DΔNI_(t-1)*ΔNI_(t-1)	-
FamOwn	?
FamOwn*ΔNI_(t-1)	?
FamOwn*DΔNI_(t-1)	?
FamOwn*DΔNI_(t-1)*ΔNI_(t-1)	**-**
Size	?
Size*ΔNI_(t-1)	?
Size*DΔNI_(t-1)	?
Size*DΔNI_(t-1)*ΔNI_(t-1)	?
Lev	?
Lev*ΔNI_(t-1)	?
Lev*DΔNI_(t-1)	?
Lev*DΔNI_(t-1)*ΔNI_(t-1)	?
Large	?
Large*ΔNI_(t-1)	?
Large*DΔNI_(t-1)	?
Large*DΔNI_(t-1)*ΔNI_(t-1)	?
_cons	?

4. Results

This section will be dedicated to presenting our empirical findings as well as descriptive statistics, correlation analyses, and robustness tests.

4.1. Statistical Considerations

To take outliers into account, all comparable variables of both datasets are winsorized at a 5% level. This means that we have taken all values that are considered outliers below the 5^{th} percentile and recalculated them to the 5^{th} percentile, and equivalently for the values above 95^{th} percentile. The winsorizing will, therefore, not exclude the values considered to be extreme, but instead recalculate them to the instructed percentile. This practice goes in line with previous

studies in the field (Cascino et al, 2010). Additional tests are carried out in section 5, with no outlier treatment and more aggressive winsorization, to check the robustness of our results.

Throughout the study robust standard errors are used to avoid problems with heteroscedasticity. This is because we have reason to believe that our datasets may be heteroscedastic. Scatter plots are provided in the appendix. Correcting for heteroscedasticity is common practice in previous studies within the field (Wang, 2006; Cascino et al, 2010; Fan and Wong, 2002).

4.2. Descriptive statistics

In table 2 below, the descriptive statistics for the variables included in each of our two analyses are presented. Evident from the descriptive statistics is that family firms have on average slightly lower discretionary accruals and are also a bit smaller. A difference can be seen in return on assets, where family firms on average have 3,8% higher ROA. Unsurprisingly then, family firms seem to have reported losses to a lesser extent than non-family firms during our observed time period. Major differences between family and non-family firms are observed in *Largeowner* and *Dual.* The difference in *Largeowner* is due to the nature of the variable in that founding families cannot be classified as *Largeowners* and therefore few family firms have any. Our observed difference in *Dual* is in line with Francis, Schipper, and Vincent (2005) who find that family firms are the main users of dual class share structures.

Table 2: Descriptive Statistics

Panel A: Discretionary Accruals analysis

	Family firms (N=355)		Non-family firms (N=1232)		Total Sample (N=1587)	
Variable	**Mean**	**Sd**	**Mean**	**Sd**	**Mean**	**Sd**
Discretionary Accruals	0,044	0,041	0,046	0,046	0,046	0,045
Size	7,066	1,660	7,497	1,832	7,401	1,803
Leverage	0,520	0,170	0,488	0,181	0,495	0,179
ROA	0,058	0,093	0,020	0,130	0,028	0,123
Growth	0,110	0,195	0,105	0,230	0,106	0,223
Loss	0,132	0,339	0,234	0,423	0,211	0,408
Largeowner	0,211	0,409	0,824	0,381	0,687	0,464
Dual	0,617	0,487	0,309	0,462	0,378	0,485

Panel B: Timely Loss Recognition analysis

	Family firms (N = 355)		Non-family firms (N=1259)		Total Sample (N=1614)	
Variable	**Mean**	**Sd**	**Mean**	**Sd**	**Mean**	**Sd**
ΔNI	-0,001	0,057	-0,005	0,076	-0,004	0,073
ΔNI_(t-1)	0,003	0,060	0,002	0,077	0,002	0,074
DΔNI_(t-1)	-0,022	0,061	-0,036	0,094	-0,033	0,088
Size	7,160	1,666	7,537	1,832	7,454	1,803
Lev	0,531	0,169	0,489	0,185	0,498	0,182
Largeowner	0,223	0,417	0,817	0,387	0,686	0,464
Dual	0,617	0,487	0,306	0,461	0,374	0,484

4.3. Correlation

In table 3 the correlations of the variables used in the respective analysis are shown. This section is dedicated to providing us with a view of the extent of multicollinearity that may exist between the variables. From the analysis, we see that *Famown* and *discretionary accruals* are negatively correlated, although not at a significant level. This goes in line with the data presented in table 2, panel A, where founding family firms have slightly lower discretionary accruals on average than non-family firms.

The values presented below are for the most part low, implying that the variables are providing the measures with unique value. Two correlations in the discretionary accruals analysis panel below (*ROA* and *Loss*, *Famown* and *Largeowner*) have negative correlations greater than 0,5 which warrants further analysis. The correlation between *ROA* and *Loss* is especially large (-0,79). However, both these correlations are expected. *ROA* and *Loss* are both based on net income and losses will result in negative *ROA*. Furthermore, most family companies do not have a non-family member that is a *Largeowner*, whereas this is very common in non-family companies. Regardless, a VIF-test has been performed which indicates values of 3,06 and 3,05 for *ROA* and *Loss* respectively and 2,0 and 1,7 for *Famown* and *Largeowner* respectively. These values are below the recommended ceiling of 5 (Hair et al., 1995). In the timely loss recognition correlation analysis, *Famown* and *Largeowner* once again exhibit the same correlation. Furthermore, Δ*NI_(t-1),* and *DΔNI_(t-1)* are negatively correlated by -0,67. VIF-tests between the variables do not indicate any collinearity, the values are 2,89 and 1,58 for Δ*NI_(t-1),* and *DΔNI_(t-1)* respectively.

Looking at the tables, we can see that family ownership is negatively correlated with *discretionary accruals*, *size*, *loss*, and *largeowner*. Of those, *size*, *loss*, and *largeowner* are statistically significant with a p-value < 0.01. Family ownership has a positive correlation with leverage (*Lev*), *ROA*, *growth*, *dual*, *ΔNI*, *ΔNI_(t-1)*, and *DΔNI_(t-1)*. Of those, leverage *(lev)*, *ROA*, and dual-class shares (*dual*) are statistically significant at the 1% level. Included in the timely loss recognition correlation analysis is *Famown*DΔNI_(t-1)*ΔNI_(t-1)* which is the variable of interest in our regression. All of its pairwise correlations are low.

Table 3: Correlation Analysis

(Numbers in bold signifies significant correlations, p<0,01)

Panel A: Discretionary Accruals

	DA	Famown	Size	Lev	ROA	Growth	Loss	Largeowner	Dual
DA	1,000								
famown	-0,024	1,000							
size	**-0,261**	**-0,100**	1,000						
lev	**-0,068**	**0,075**	**0,385**	1,000					
ROA	**-0,252**	**0,129**	**0,274**	0,041	1,000				
Growth	0,033	0,008	**-0,119**	-0,051	**0,215**	1,000			
Loss	**0,278**	**-0,104**	**-0,333**	**-0,129**	**-0,790**	**-0,170**	1,000		
Largeowner	**-0,072**	**-0,550**	**0,101**	0,033	**-0,078**	-0,025	0,056	1,000	
Dual	-0,008	**0,264**	0,166	0,007	**0,077**	-0,054	**-0,104**	**-0,090**	1,000

Panel B: Timely Loss Recognition

	ΔNI	ΔNI_(t-1)	DΔNI_(t-1)	Famown	Size	Lev	Largeowner	Dual	FamOwn*DΔNI_(t-1)*ΔNI_(t-1)
ΔNI	1,000								
ΔNI_(t-1)	**-0,250**	1,000							
DΔNI_(t-1)	**0,165**	**-0,670**	1,000						
Famown	0,024	0,005	0,024	1,000					
Size	0,010	0,000	-0,037	**-0,090**	1,000				
Lev	0,011	-0,024	0,041	**0,101**	**0,359**	1,000			
Largeowner	-0,027	-0,041	0,038	**-0,531**	**0,112**	0,030	1,000		
Dual	-0,009	-0,023	-0,011	**0,266**	**0,162**	0,015	**-0,090**	1,000	
FamOwn*DΔNI_(t-1)*ΔNI_(t-1)	-0,124	**0,2607**	0,2363	**-0,427**	**0,117**	-0,002	**0,238**	-0,083	1,000

4.3 Empirical Findings

In this subsection the results for both regressions are presented in tables 4 and 5 respectively.

4.3.1 Discretionary Accruals

The results from the discretionary accruals model indicate that family firms tend to use discretionary accruals to a lesser extent than non-family firms. The coefficient on *Famown* is -0,011 and it is significant at the 0,1% level. Thus, the findings confirm our hypothesis that founding family ownership is associated with a higher level of earnings quality compared to non-family ownership. The adjusted R-squared of the model is 0,1822.

The control variables used in the model seem to follow the same pattern as in previous literature as well as our predictions. Looking at the below table we can see that *Size* and *Largeowner* have negative significant coefficients. Further, we can also see that *Loss* and *Dual* have positive coefficients with p-values < 0.05. *Leverage* and *ROA* have insignificant positive and negative coefficients respectively. Lastly, *Growth* has a positive coefficient which is significant at the 10% level.

Table 4: Discretionary Accruals

DA	Exp. sign	Coef.	Robust Std. Err.	t	P>|t|
Famown	-	**-0,011**	**0,003**	**-3,32**	**0,001**
Size	-	-0,006	0,001	-7,01	0,000
Lev	+	0,012	0,008	1,47	0,141
ROA	?	-0,025	0,020	-1,29	0,196
Growth	+	0,011	0,006	1,68	0,092
Loss	+	0,015	0,005	3,11	0,002
Largeowner	-	-0,007	0,003	-2,17	0,030
Dual	+	0,006	0,003	2,14	0,033
_cons	?	-0,011	0,003	-3,32	0,001
Observations		**1587**			
Adjusted R-squared		**0,1822**			

4.3.2 Timely Loss Recognition

Financial reporting is considered to be of higher quality if transitory losses are recognized in a timelier fashion than transitory gains (Ball & Shivakumar, 2005; Basu 1997). The results, presented in table 5, show that founding family ownership is associated with more timely loss recognition than non-family ownership. The coefficient on *Famown*DΔNI_(t-1)*ΔNI_(t-1)* is -0,477 and it is significant at the 10% level, which indicates higher earnings quality in family-owned firms. The adjusted R-squared of our test is 0,0567. Given the high significance level and rather low explanatory power, the result should be interpreted with caution. Generally, for all the variables in the TLR-model, we have observed rather high p-values.

For the control variables, we can first observe that *Lev*DΔNI_(t-1)*ΔNI_(t-1)* has an insignificant negative coefficient (p-value<0,6), which goes in line with previous studies in the field (Wang, 2006). Furthermore, *Size*DΔNI_(t-1)*ΔNI_(t-1)* is also negative, but this does not go in line with previous studies (Wang, 2006). The variable *Dual*DΔNI_(t-1)*ΔNI_(t-1)* has a positive coefficient and is the only variable in the TLR-model that is significant at the 5% level.

Additionally, when looking at the variable *DΔNI_(t-1)*ΔNI_(t-1)*, we could see that the coefficient is slightly positive with a p-value just below 0.7. This means that we cannot find support for the asymmetric timeliness of earnings in our dataset on the Swedish market.

Table 5: Timely Loss Recognition

ΔNI	Exp Sign	Coef.	Robust Std. Err	t	P>|t|
ΔNI_(t-1)	0	-0,326	0,304	-1,07	0,284
DΔNI_(t-1)	?	0,008	0,029	0,28	0,781
DΔNI_(t-1)*ΔNI_(t-1)	-	0,180	0,466	0,39	0,699
FamOwn	?	0,001	0,009	0,16	0,872
FamOwn*ΔNI_(t-1)	?	0,164	0,196	0,84	0,403
FamOwn*DΔNI_(t-1)	?	-0,016	0,011	-1,39	0,163
FamOwn*DΔNI_(t-1)*ΔNI_(t-1)	**-**	**-0,477**	**0,287**	**-1,66**	**0,097**
Size	?	0,003	0,002	1,27	0,205
Size*ΔNI_(t-1)	?	0,015	0,042	0,36	0,715
Size*DΔNI_(t-1)	?	-0,005	0,003	-1,67	0,095
Size*DΔNI_(t-1)*ΔNI_(t-1)	?	-0,042	0,067	-0,62	0,538
Lev	?	-0,038	0,024	-1,58	0,114
Lev*ΔNI_(t-1)	?	0,134	0,314	0,42	0,671
Lev*DΔNI_(t-1)	?	0,067	0,034	1,98	0,048
Lev*DΔNI_(t-1)*ΔNI_(t-1)	?	-0,296	0,492	-0,60	0,548
Large	?	-0,002	0,008	-0,29	0,772
Large*ΔNI_(t-1)	?	0,047	0,171	0,27	0,784
Large*DΔNI_(t-1)	?	-0,012	0,011	-1,16	0,247
Large*DΔNI_(t-1)*ΔNI_(t-1)	?	-0,033	0,249	-0,13	0,895
Dual	?	0,002	0,007	0,27	0,784
Dual*ΔNI_(t-1)	?	-0,259	0,149	-1,74	0,083
Dual*DΔNI_(t-1)	?	0,014	0,009	1,55	0,120
Dual*DΔNI_(t-1)*ΔNI_(t-1)	?	0,509	0,227	2,24	0,025
_cons	?	-0,033	0,039	-0,85	0,397
Observations		**1614**			
Adjusted R-squared		**0.0567**			

4.4 Robustness test

The results that are presented above have been obtained by using a regression where the continuous variables have been winsorized at a 5% level. What this does is that it limits the effect from the extreme values in our sample. Below, we will do additional tests where one of the tests is winsorized at a 10% level, and the other has not taken any consideration to outliers.

These tests show that our discretionary accruals analysis is robust to varying degrees of outlier treatment as well as no outlier treatment. Thus, these tests strengthen the results obtained in the original discretionary accruals analysis. The explanatory power of these tests is about the same as that of our original regression.

Table 6: Test with outlier treatment

Panel A: Discretionary Accruals

	Winsorized at 10%		Without any treatment of outliers	
DA	**Coef.**	**P>|t|**	**Coef.**	**P>|t|**
Famown	**-0,009**	**0,001**	**-0,019**	**0,000**
Size	-0,005	0,000	-0,007	0,000
Lev	0,008	0,258	0,031	0,038
ROA	0,019	0,384	-0,090	0,035
Growth	0,011	0,100	0,001	0,570
Loss	0,018	0,000	0,011	0,213
Largeowner	-0,005	0,019	-0,007	0,100
Dual	0,004	0,041	0,014	0,004
_cons	0,097	0,000	0,193	0,000
Observations		**1587**		
Adjusted R-squared	**0.1776**		**0.1764**	

Panel B: Timely Loss Recognition

	Winsorized at 10%		Without any treatment of outliers	
ΔNI	**Coef.**	**P>|t|**	**Coef.**	**P>|t|**
ΔNI_(t-1)	-0,344	0,290	-0,628	0,151
DΔNI_(t-1)	0,019	0,375	-0,055	0,196
DΔNI_(t-1)*ΔNI_(t-1)	0,722	0,139	-0,445	0,475
FamOwn	-0,002	0,721	0,031	0,031
FamOwn*ΔNI_(t-1)	0,156	0,422	-0,135	0,618
FamOwn*DΔNI_(t-1)	-0,008	0,372	-0,026	0,174
FamOwn*DΔNI_(t-1)*ΔNI_(t-1)	**-0,397**	**0,179**	**0,130**	**0,730**
Size	0,001	0,569	0,006	0,093
Size*ΔNI_(t-1)	0,013	0,776	0,034	0,600
Size*DΔNI_(t-1)	-0,005	0,031	0,000	0,951
Size*DΔNI_(t-1)*ΔNI_(t-1)	-0,081	0,214	0,037	0,674
Lev	-0,028	0,123	-0,126	0,002
Lev*ΔNI_(t-1)	0,162	0,678	0,805	0,033
Lev*DΔNI_(t-1)	0,044	0,096	0,091	0,079
Lev*DΔNI_(t-1)*ΔNI_(t-1)	-0,336	0,560	-1,511	0,004
LargeOwner	-0,003	0,567	0,015	0,227
LargeOwner*ΔNI_(t-1)	0,066	0,678	-0,060	0,760
LargeOwner*DΔNI_(t-1)	-0,006	0,416	-0,006	0,742
LargeOwner*DΔNI_(t-1)*ΔNI_(t-1)	-0,111	0,649	0,489	0,087
Dual	0,002	0,651	-0,015	0,197
Dual*ΔNI_(t-1)	-0,194	0,153	-0,087	0,691
Dual*DΔNI_(t-1)	0,011	0,072	0,031	0,036
Dual*DΔNI_(t-1)*ΔNI_(t-1)	0,429	0,038	0,343	0,221
_cons	-0,010	0,703	-0,043	0,553
Observations		**1614**		
Adjusted R-squared	**0,0258**		**0,1719**	

The timely loss recognition model does not show the same robustness. Winsorizing at 10% confirms the insignificant correlation between family ownership and timely loss recognition with the negative coefficient on *FamOwn*DΔNI_(t-1)*ΔNI_(t-1)*. However, this more aggressive winsorization increases the p-value. Further, we could also see that, without any treatment of outliers, the coefficient is insignificantly positive. Evident from these tests is that more aggressive winsorization leads to lower explanatory power as the variance in our data is reduced. The adjusted R-squared with winsorization at the 10^{th} and 90^{th} percentile is 0,0258 in comparison to 0,1719 received from the test with no consideration of outliers.

5. Discussion

The results from our discretionary accruals analysis show support for our hypothesis that founding family ownership is associated with higher earnings quality and it is significant at the 0,1% level. This is in line with previous studies (Wang, 2006; Ali et al, 2007; Cascino et al, 2010). Furthermore, the robustness tests strengthen this result and indicate that discretionary accruals is a reliable proxy for estimating earnings quality. Our result supports the alignment effect that family-firms are incentivized to not engage in opportunistic earnings management and have superior monitoring capabilities. However, the result could also be attributed to increased demand for high-quality earnings from investors through the entrenchment effect as investors might believe that founding families will become entrenched. The model makes no distinction between these effects.

Generally, the outcome of the control variables in our discretionary accruals analysis is very much consistent with our expectations presented in section 3.3.1. as well as previous literature (Wang, 2006; Ali et al, 2007; Cascino et al). The negative coefficient on *ROA* differs from Wang (2006) and Cascino et al (2010) but could potentially be explained by better return on assets generating a lesser need for altering financial reports. Poor results are associated with using earnings management (Burgstahler & Dichev, 1997). The positive correlation between *Growth* and discretionary accruals could find its explanation in that smaller firms exhibit higher growth and thus have less demand for high quality earnings, Wang (2006), Ali et al (2010) and Cascino et al (2010) find the same tendency. *Dual* in our tests, exhibit the same tendency as Francis, Schipper & Vincent (2005) find in that it contributes to lower earnings quality.

In our timely loss recognition-analysis, we find a significant positive association at the 10% level between founding family ownership and earnings quality. This supports our hypothesis but given the high p-value and low explanatory power, the result has to be interpreted carefully. From the robustness tests, we can also see that the model is sensitive to how you treat the data as coefficients change direction at various winsorization levels. However, the higher explanatory power and significant coefficients observed in the test without any winsorization, compared to the winsorized tests, indicate that these results might be driven by outliers.

Our findings in the timely loss recognition analysis are in line with Wang (2006) and Cascino et al (2010) who find the relationship between family ownership and more timely loss recognition to be statistically significant. However, it should be noted that Cascino et al (2010) who study the Italian market using a different model, similarly to us only observe significance at the 10% level. Both our study and Cascino et al (2010) are carried out in code law countries which have been associated with less timely loss recognition than common law countries such as the US which Wang (2006) studied (Ball et al, 2000). Ball et al (2008) also associate more timely loss recognition to firms in countries where debt markets play a greater role compared to equity markets. This indicates less timely loss recognition in Sweden compared to the US (Ball et al, 2008). These institutional differences could imply that timely loss recognition is associated with earnings quality to a lower degree in Sweden than in the US. Thus, even if the alignment effect holds it could be that the incentive for family firms in Sweden to practice timely loss recognition isn't particularly strong.

The institutional differences could also potentially explain the unexpected positive coefficient on $D\Delta NI_{(t-1)}*\Delta NI_{(t-1)}$ in our analysis. This result suggests, although not significant, that losses aren't recognized in a timelier manner than gains which contradicts Basu (1997) and Wang (2006). If timely loss recognition isn't equally important as other aspects of earnings quality to investors in Sweden, then it is expected that it isn't practiced to the same extent as in other countries. The only result from the TLR-model that is significant at the 5% level is the positive coefficient on $Dual*D\Delta NI_{(t-1)}*\Delta NI_{(t-1}$). This outcome suggests, similarly to the discretionary accruals analysis, that the usage of dual share classes is associated with lower earnings quality. Arguably this stems from the increased type II agency problem that wedges between voting and cash flow rights cause (Fan and Wong, 2002).

6. Summary

This study has the purpose of investigating founding family ownership and its influence on the level of earnings quality reported by companies listed on the Stockholm Stock Exchange. We use two different proxies for earnings quality, discretionary accruals and timely loss recognition. Two opposing theories predict different outcomes. The entrenchment effect suggests that founding families will opportunistically manipulate earnings at the expense of other shareholders while the alignment effect suggests that founding families are incentivized to not engage in such short-term opportunistic behavior. Prior research finds support for both these effects. However, by looking at studies similar in nature to our own and when considering the institutional setting we arrive at the following hypothesis: *Founding family ownership is associated with a higher level of earnings quality than non-family ownership.*

Through studying 49 family firms and 190 non-family firms listed on the Stockholm Stock Exchange in the period between 2009-2019, we find support for our hypothesis. Strong support comes from our discretionary accruals analysis which significantly associates founding family firms with lower levels of discretionary accruals than non-family firms. Our results confirm previous studies within the field (Wang, 2006; ali et al, 2007; Cascino, 2010). This could be due to the incentives for founding families to preserve legacy and wealth as well as the reduced type I agency conflicts associated with concentrated ownership. Our timely loss recognition-analysis finds a significant association at the 10% level between founding family ownership and timelier loss recognition which is in line with our hypothesis as well as previous studies (Wang, 2006; Cascino et al, 2010). However, the weak significance prompts cautious interpretation. These findings contribute to and expand the literature on family ownership and earnings quality by applying earnings quality proxies to new geographical settings and by providing new empirics.

There are limitations to this study. Firstly, the results from the timely loss recognition model had generally high p-values, a low adjusted R-squared, and low robustness implying that the meaningfulness of the results is limited. Further, as for Francis, Schipper, and Vincent (2005), and Fan and Wong (2002), it is relatively difficult to empirically study the consequences from ownership structure, where foremost the endogeneity could be a possible problem. There is a risk that founding families may leave the company and sell their shares in cases where the firm has problems and thus the selection of family companies may be skewed. Because of the

potential prevalence of this problem, the main purpose of the study is to provide a depiction of the correlation that exists between founding family ownership and earnings quality, and not a causal relationship.

New research within the field could explore a different timely loss recognition model in the Swedish setting to further explore this relationship between family ownership and accounting conservativeness. Furthermore, there are several more proxies to examine earnings quality such as persistence, informativeness, and target beating (Dechow, Ge & Schrand, 2010). It would also be interesting to study other European regions since much of the previous literature has been in eastern Asia, southern Europe, and the US. Finally, delving deeper into how the practice of earnings management differ between family and non-family firms would be very interesting.

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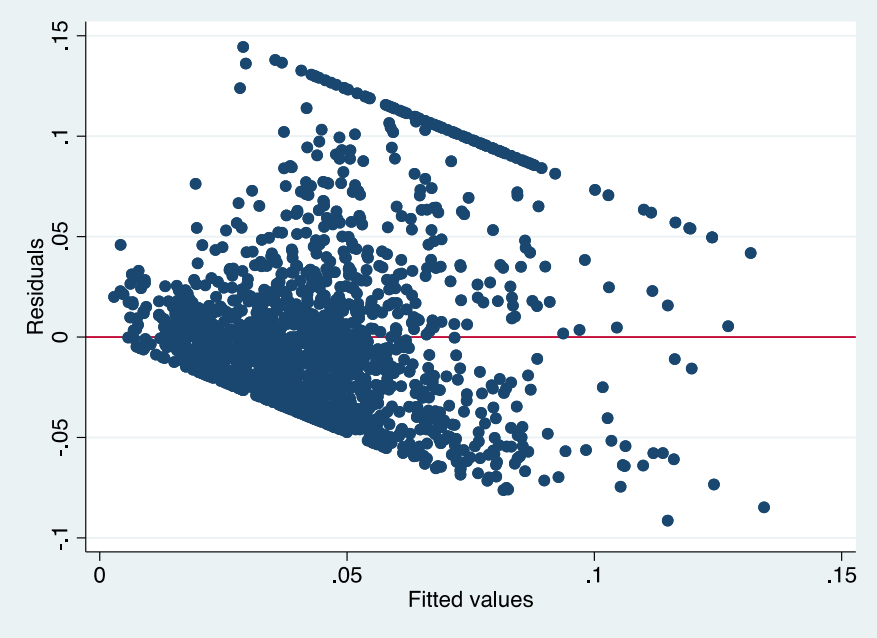
Appendix

1: Scatter residuals, DA-analysis



2: Scattered Residuals TLR-analysis