Performance and Valuation of Family Controlled Firms in Sweden

ABSTRACT

This thesis examines the effects of family control on firm performance and valuation. The analysis is based on 1473 observations of firms listed at Nasdaq OMX Stockholm over the years 2001-2009. We find that, although family controlled companies often employ control-enhancing devices, which are associated with lower performance, the operating performance is still better among family-controlled firms given any combination of cash flow rights and voting rights. A family firm with a family member as a CEO has significantly higher performance than those with an external CEO. The reasons behind higher family firm performance compared to non-family firm could be longer investment horizons and lower costs linked to the principal-agent problem for family firms. Higher levels of cash flow ownership held by the largest shareholder also have a positive effect on firm performance. We find no statistically significant effect of family control on firm valuation. However, we find that a higher separation between voting rights and cash flow ownership is associated with lower valuation.

University of Gothenburg
Bachelor's thesis in Finance
NEG300 V15 – Project paper
Supervisor: Van Diem Nguyen

Jonathan Israelsson
BSc in Finance

André Holmström
BSc in Accounting

Table of Contents

1.Introduction

1.1 Background

Publicly traded firms around the world often tend to have large controlling owners (La Porta et al., 1999; Cronqvist and Nilsson, 2003). In Sweden, we have a history of having families as large controlling shareholders (La Porta et al, 1999). In our sample, 65% of the observations have a family as the largest shareholder[1]. Compared to other categories of owners in Sweden, families are also more likely to employ controlling minority shareholder structures (Cronqvist and Nilsson, 2003). The impact of such a control structure, and family control in general, has been studied in the U.S. and a few other European countries, but only to some extent in Sweden. For that reason we have chosen to study this topic on a sample of Swedish public companies.

Throughout our thesis and descriptive statistics, we consider a family with over 25% of the firm's voting rights as a controlling owner. Even though an owner with 25% of the votes doesn't have full control, it should be sufficient to exert main decisions in the firm (Cronqvist and Nilsson, 2003). We have also included a variable for family owners with over 50% of the voting rights as the strict definition of control in our regressions.

By the executions of actions that are non-value maximizing for other shareholders, family control is sometimes seen as a governing structure that impairs the value creation. These are known as the principal-agent and minority expropriation problem, which arise when the controlling families have different priorities than those of the outside shareholders. The family may engage in actions that are privately beneficial, disperse funds in a way that disadvantages the outside shareholders or employ family members in executive positions and management (Barontini and Caprio, 2006; Anderson and Reeb, 2003). On the other hand, it is also common to have a positive view of family control. Families are seen as long-term investors eager to increase the value of their investments and see their company prosper (Barontini and Caprio, 2006). These ambiguous theories make it interesting to examine the actual differences in performance and valuation between family and non-family firms.

Tobin's Q and return on assets are, from previous studies, the most commonly used metrics for measuring valuation and performance of firms, respectively. The results of family control in previous empirical studies have been mixed, showing both positive and negative effects on valuation and performance. Founder CEOs seems to enhance performance and valuation of the firm, whereas firms show a decline in valuation after the position move to an heir (Barontini and Caprio, 2006;

---

[1] 960 of 1473 observations from our adjusted dataset. In our unadjusted dataset, including outliers and financial companies, 1227 of 1842 observations have a family as largest shareholder.

Amit and Villanlonga, 2006). In this thesis, we examine whether the effect of a family CEO is positive or not, without taking the founder-descendant perspective into account.

We will continue this thesis by giving an overview of the previous research on this subject and the theories related to family control. We will then build our hypotheses based on those two sections. The methodology section describes the methods for analysis and an overview of the descriptive statistics of the dataset used in this thesis. In the following sections after that, we will present the results of our regression analysis and an analysis of the given results. We then end our thesis with suggestions of future research.

1.2 Purpose

Many previous studies only examine either the valuation or the performance among family controlled firms, while we study both of them. In this way we do not only obtain results on both aspects, we can also determine if there are any opposing effects or not between performance and valuation. The results from previous studies are mixed, with many of them showing better performance and valuation among family controlled firms and a decreasing valuation from the use of control-enhancing mechanisms.

There has not been much research done on this topic in Sweden. Barontini and Caprio (2005) include a sample of 39 Swedish firms in their research. However, these are only firms with assets worth more than €300 million between the years of 1999-2001. Of the previous research made on the Swedish market, Cronqvist and Nilsson (2003) analyze the effects of controlling minority shareholders between the years 1991-1997 and Oreland (2007) only analyze the relationship between family control and Tobin's Q alone. Thus, our study will provide results on another set of years on both performance and valuation on the Swedish market. We will also provide descriptive statistics of family ownership and control on Swedish publicly traded companies.

2. Previous research

Although family control is commonly perceived as negative in theory, many studies have found that performance and valuation is higher among family firms. Barontini and Caprio (2005) investigated the relation between family control and firm performance and valuation. With data of 675 firms in 11 European countries, they conclude that family control is positive for both performance and valuation measured in return on assets and Tobin's Q respectively. Anderson and Reeb (2003) reach the same conclusion for both firm performance and valuation in their studies of firms in the US. Amit and Villanlonga (2006) also investigate the relationship between firm valuation and ownership structure in the US market, but they found no statistical significance in their studies. The results of Oreland (2007), one of few studies made on the Swedish market, indicated that family controlled firms performed worse than those with dispersed ownership.

Family firms are more likely to use control-enhancing devices to increase their voting power (Barontini and Caprio, 2005; Cronqvist and Nilsson, 2003). Higher dispersion between cash flow ownership and voting rights has by most studies been found to have negative effects on firm valuation (Amit and Villanlonga, 2006; Barontini and Caprio, 2005; Cronqvist and Nilsson, 2003).

It is difficult to measure the effect of the share of cash flow ownership of the largest shareholder on firm performance and valuation. This is because firm performance, or other variables, might affect the ownership structure, e.g. cash flow ownership, so there is no way of knowing the direction of the causality. However, Amit and Villanlonga (2006) found a weak positive effect of cash flow ownership on valuation. Anderson and Reeb (2003) also pointed on a positive relationship between cash flow ownership of the largest shareholder and firm valuation.

Almost every study on the performance and valuation of firms with a founder CEO and management has found positive effects on both metrics. These effects, on the other hand, seem to be negative or non-distinguishable from non-family firms when a descendant is given one of these positions (Anderson and Reeb, 2003; Amit and Villanlonga, 2006; Barontini and Caprio, 2005). The decline is explained by the fact that the special competence added by the founder will not necessarily be transferred to a descendant. Zellweger (2006) also points at financial slack in the subsequent generations as a possible explanation for decreasing performance.

To summarize previous research, on average, there seem to be a positive relation between family control and performance and valuation. However, an extensive use of control enhancing devices decreases valuation. A large cash flow ownership stake of the largest shareholder has positive effect on the valuation. Founder CEOs have been found to have a positive impact on both metrics. A summary table of previous research and the results obtained can be found in appendix *table A1*.

3. Theory and hypotheses

This section describes the different theories revolving around the effects of family control, and the impact they can have on the performance and valuation of a firm. We will then form hypotheses based on these theories and the previous research outlined earlier in the text.

3.1 Theoretical framework

The effects of the largest shareholder controlling the firm, despite not owning the firm fully through cash flow rights, has for decades been a subject of much attention and is therefore a widely researched subject. There are many aspects and theories related to the control, ownership and management of a firm, and the impact those have on firm performance and valuation.

The principal-agent theory is one of the theories related to the effects of dispersed ownership and control. The theory states that in a firm with dispersed ownership, costs will arise because of the fact that the principal, the owner, and the agents, the management, might have different interests. Incomplete contract enables the agent to pursue objectives of his own that might not be in best interest of other shareholders. Costs will then arise when the principal take actions to monitor the agent or get him to act in line with shareholders interest through incentives. According to Dyer (2006), a family firm could benefit from reduced agency costs since the principal and agent to a higher degree share the same objectives. The agency cost could in fact completely vanish when the principal and agent are the same person, which is more common in family firms than other types of ownership structures (Dyer, 2006).

A disadvantage could on the other hand be that it is not always certain that family members share the same objective, and in these cases *altruism* can become a problem. *Altruism*, in this context, means that you treat people for what they are, not what they do (Dyer, 2006). In a family owned and controlled firm this could lead to that the firm abstains from monitoring the family member positioned as the CEO (agent), who does not act in the family's or the other shareholders' best interest and therefore neglects value-enhancing activities (Dyer, 2006). Another potential disadvantage of family ownership, according to *altruism,* is that family firms with a family member as CEO tend to wait longer before making change in the leadership when performance is unacceptable. A non-family firm is more likely to replace a CEO when performance is falling (Dyer, 2006). The fact that family firms often fill management positions with family members mean that there is a limited sphere to recruit from, which makes it harder for family firms to find qualified persons compared to non-family firms (Anderson and Reeb, 2003). *Altruism* could in these cases lead to free riders, which can be costly for family firms.

Family ownership and control could also lead to *expropriation of the minority shareholders*. The problem derives from the fact that the controlling shareholder does not own hundred percent of the cash flow rights and therefore does not bear the full cost of actions taken. This could lead to conflict of interests between the controlling shareholder and the minority shareholders since the controlling shareholder might engage in non-maximizing wealth actions that are beneficial for him and disfavors the minority shareholders (Jensen and Meckling, 1976). Shleifer and Vishny (1997) also acknowledge this by stating that the observed premium on shares with greater voting rights is a proof of this minority expropriation. The potential benefit for the controlling shareholder from minority expropriation activities also gets larger the more concentrated the control rights are, meaning that minority expropriation could be a more common problem in family firms (Villanlonga and Amit, 2004). The wedge, defined as the percentage difference between voting rights and cash flow rights, in companies with dual-class shares gives the controlling shareholder incentive to expropriate the minority shareholders. The controlling shareholder have two opportunities; undertaking value-enhancing activities or extract for private benefits. Since the controlling shareholder does not bear the full cost of not making value-enhancing activities for the firm, the rational choice would be to extract private benefits (Cronqvist and Nilsson, 2003). A higher wedge should also give higher incentives for these behaviors.

To summarize the theories, the effects of family control could be both positive and negative on firm performance and valuation. On the one hand, costs arising because of the *principal-agent problem* through monitoring and incentives should be lower in family firms compared to non-family firms. On the other hand, *altruism* and the *minority expropriation problem* suggest that family control should have a negative effect on firm performance and valuation. All in all, the negative effects of family control on firm performance and valuation outweigh the positive effects in theories written on the subject.

3.2. Hypotheses

In this section, we will provide our hypotheses based on the theoretical framework and the previous research earlier outlined.

3.2.1. The effect of family control on performance and valuation

As earlier noted, family control in theory is associated with lower performance and valuation. However, results from previous studies seem to contradict these theories. Barontini and Caprio (2005) and Anderson and Reeb (2003) both reach the conclusion that family control has a positive effect on performance and valuation. Anderson and Reeb (2003) suggest that family ownership after all is an efficient ownership structure. One possible explanation to the result may be that the fear of

the controlling family using control-enhancing devices to expropriate the minority is exaggerated (Barontini and Caprio, 2005). Another possible explanation may be that families usually are more committed for the long haul than other investors, which is normally perceived as something positive. For that reason, family owners tend to have longer investment horizons, reducing the risk of myopic behavior when it comes to investments (James, 1999; Stein, 1988, 1989). This could be a benefit from family control in favor for firm performance and valuation.

On the other hand, previous studies have also found negative effects of family control. Cronqvist and Nilsson (2003) found results that firms with controlling minority shareholders had lower operational performance compared to other firms. Controlling minority shareholders controls the firms through dual-class shares or other controlling instruments. Families, associated with the largest decrease in value, are 1.5 to 2 times more likely to be involved in these types of corporate control structures (Cronqvist and Nilsson, 2003). Their conclusion was, that firms with control-enhancing devices had lower performance due to suboptimal investment decisions. They argue that in developed countries it is not likely that the controlling shareholder benefits himself through direct minority expropriation, instead they claim that families are more likely to try to maintain their power through empire-building activities, and therefore they are not fully focused on making the best investment decision from a cash flow generating perspective.

Family firms could also be less likely to be acquired and are therefore valued at a discounted price (Cronqvist and Nilsson, 2003). A firm seen as a prospect of potentially being acquired is usually rewarded with a higher valuation by the stock market since an acquirer normally has to pay a premium on the stock market valuation for the company. According to Cronqvist and Nilson (2003), family firms are 50% less likely to be taken over compared to non-family firms and therefore they are given a discount, ceteris paribus.

To sum it all up, the different theories and results from previous studies concerning firm performance and valuation are ambiguous. Based on this, we have chosen to make the assumption that family firms do not perform better or are higher valued than non-family firms and that there are no opposing effects between performance and valuation.

Hypothesis 1 – Family firms do not perform better than non-family firms

Hypothesis 2 – Family firms do not have higher valuation than non-family firms

3.2.2. The effect of the ownership structure on family firm performance and valuation

As mentioned in the theory section, the wedge between voting rights and cash flow rights is closely linked to the minority expropriation problem. The larger the wedge is, the more incentive the controlling shareholder has to expropriate minority for his own benefits (Cronqvist and Nilsson, 2003). Earlier studies have also confirmed the theory that the use of control enhancing devices, measured as the discrepancy between voting rights and cash flow rights, amounts to lower valuation (Barontini and Caprio, 2005; Cronqvist and Nilsson, 2003).

The same argument about taking advantage of minority shareholders can be used for cash flow ownership. The minority expropriation problem should be less of a problem the more cash flow rights the controlling shareholder owns, since the private benefits of expropriation decreases at higher levels of cash flow ownership. This theory is harder to examine with regression analysis since it is extra exposed to endogeneity through reverse causality. However, previous studies have found a positive relationship between cash flow ownership and valuation (Amit and Villanlonga, 2006; Anderson and Reeb, 2003).

As theory and previous research on the subject to a high degree are in agreement with each other, we expect the following results:

Hypothesis 3 – Family firms' valuation and performance increases with the cash flow ownership of the largest shareholder

Hypothesis 4 – Family firms' valuation and performance decreases in the wedge between voting rights and cash flow rights of the largest shareholder

3.2.3. The effect of a family CEO on performance and valuation

According to the theories outlined in the theoretical framework, having a family member as CEO can have double-sided effects on performance and valuation. First and foremost, the recruitment pool within a family is small, making it harder to find competent and great leaders. As earlier stated, a benefit could be that the CEO usually shares the same objectives as the owners, possibly resulting in lower agency costs. A disadvantage could on the other hand be if the CEO does not share objectives with the rest of the family. Since the family does not control the CEO through incentive and monitoring to the same degree as firms with an external CEO do, agency costs could then get higher. *Altruism* can also lead to that the controlling owner wait too long to make changes in management positions when the firm is underperforming.

Although theories tend to find more negative than positive effects with family CEO, previous research show slightly more positive results than the other way around. Barontini and Caprio (2005) and Amit and Villanlonga (2006) both find that founder CEO has a positive effect on firm performance and valuation. When the position of CEO instead goes to a descendant, the relation is negative or non-distinguishable with the measured metrics. With these theories and earlier studies in mind, we derive the following hypothesis:

Hypothesis 5 – Family firms with CEO appointed from within the family do not perform better or are valued higher than family firms with externally recruited CEO

4. Methodology

This section describes our method of analysis along with the different assumptions and definitions used throughout our thesis.

4.1 Dataset and collection of data

The sample data used in our study consist of firms listed on the Nasdaq OMX Stockholm between the years 2001 and 2009. It includes 199 firms and a total of 1473 observations[2]. The dataset contain observations from firms listed at the large, medium and small cap.

We received the family and ownership specific data from the center for finance at the School of Business, Economics and Law at University of Gothenburg. We have complemented the dataset with data used for control variables and dependent variables, all collected through Datastream. We have used *industry benchmark classification* from Nasdaq OMX to compose our industry dummy variables used for fixed effects. Unfortunately, some data related to both the family specific variables and control variables were missing in the given material and database used for collection. These years and firm observations are excluded from the study. Firms with less than three observations are excluded from the dataset to avoid possible biasedness.

4.2 Variables

In this section, we will define all variables used in our regressions. A summary of the variables can be found in *table A2* in the appendix.

4.2.1 Family and ownership specific variables

To test our hypotheses, the following family and ownership specific variables has been created:

Variable	Definition
Family firm > 25%	Dummy variable with value of 1 if the largest owner is a family and holds more than 25% of the voting rights. Otherwise the variable takes the value of 0.
Family firm > 50%	Dummy variable with value of 1 if the largest owner is a family and holds more than 50% of voting rights. Otherwise the variable takes the value of 0.
Capital largest	Variable that specifies how much cash flow rights the largest owner holds.

---

[2] After adjustments for outliers and financial companies

Wedge	Percentage difference between voting rights and cash flow rights of the largest shareholder
Family CEO	Dummy variable with the value of 1 if the firm is controlled by a family and has a family CEO. Otherwise the variable takes the value of 0.

4.2.2 Dependent variables

In this study two dependent variables are used; one to measure performance and another one to measure valuation. To begin with, we use return on assets to measure performance. The definition used for return on assets (ROA) is:

$$Return\ on\ Assets = \frac{Operating\ profit}{Total\ Assets}$$

The indicator captures the operational efficiency and the result generated by the assets each firm possess. Return on assets, defined as above, is the most common measure for performance in previous research and is therefore used in our thesis too (Barontini and Caprio, 2006).

The second dependent variable is Tobin's Q, used for measuring firm valuation. Tobin's Q is in its original form defined as:

$$Tobin's\ Q = \frac{Market\ value\ of\ total\ assets}{Replacement\ cost\ of\ total\ assets}$$

The replacement cost of total assets is unfortunately something that is hard to obtain. Therefore we instead calculate the ratio by using the most commonly used definition in the financial literature (Cronqvist and Nilsson, 2003).

$$Tobin's\ Q = \frac{Market\ Capitalization + Book\ value\ of\ debt}{Total\ assets}$$

Since market value of liabilities is data hard to obtain, we use the book value of liabilities in both the numerator and denominator. This is a fair assumption to make, as it is common practice to assume that market value and book value of liabilities are the same (Cronqvist and Nilsson, 2003).

4.2.3 Control variables

To control for effects that can influence the result the family specific variables have on the dependent variables, we use control variables. These are variables that potentially can have an impact on performance or valuation and it is therefore important to control for these effects. We have included the most commonly used control variables from previous studies. The control variables used in the regression analysis are:

Variable	Definition
Ln Age	Firm age (as a logarithm)
Ln Size	Defined as total assets (as a logarithm)
Growth in Sales	The difference between this year sales and last year sales, in percent.
Leverage	Defined as debt to equity
Dividend yield	Dividends divided by the market value of equity

Since there is often a relationship between age and performance, it is commonly used as a control variable in previous studies (Oreland, 2007). As seen below in *figure II,* there seems to be a relationship between age and performance in our sample. It is also customary to control for size in these types of studies. The size of the firm and its effects on the dependent variables are controlled by the book value of total assets. The natural logarithm is used to get a more normal distribution for both age and size (Oreland. 2007). In line with previous studies, we also control for leverage in the form of debt to equity, as it affects both performance and valuation in theory.

An assumption that growth in sales also can affect the result is not too far-fetched due to the fact that investors are likely to pay a premium for firms that have shown an ability to create fast growing profits. The same can be said about dividend yields effect on valuation, since it is one of the key drivers of market valuation.

4.3 Method of analysis

4.3.1 Analysis models

To analyze our panel data, we use regression analysis along with an analysis of our descriptive statistics to test our hypotheses. Our primary regression analysis will be made with the OLS model.

We adjust t-statistics for heteroscedasticity by using White's robust standard errors. We also run regressions with clustered standard errors.

The primary regression model used in this study with the variables defined above have the following appearance:

$$Y = a + \beta_1(family\ firm) + \beta_2(wedge) + \beta_3(capital\ largest) + \beta_4(control\ variables) + \beta_5(industry\ dummy\ variables) + \beta_6(year\ dummy\ variables) + \varepsilon$$

4.3.2 Adjustments for fixed effects and outliers

To avoid fixed effects affecting our result, we adjust for industry and time in our regression model. Changes in the set of companies included from year to year could otherwise result in fixed effects.

In line with previous studies, our sample has also been adjusted for outliers to make our result more reliable (Barontini and Caprio, 2005; Cronqvist and Nilsson, 2003). We have made the assessment that a Tobin's Q higher than 10 and lower than 0.1 is extraordinary and therefore we exclude these observations[3]. Observations with a return on assets at 1st and 99th percentile are also excluded from the adjusted dataset. We have also excluded firms in the financial sector and utilities in our regression analysis, since it has been common practice in previous studies on the subject[4]. Financial firms are often affected by government regulations that may affect performance and, because the balance sheet of financial firms differ a lot from other companies, it is also harder to calculate Tobin's Q (Anderson and Reeb, 2003).

4.3.3 Endogeneity

A problem when estimating the effect of family control on firm valuation and performance is the prevalence of endogeneity. If any of the variables are correlated with the error term in our regression, the problem with endogeneity will arise. Reverse causality can be another cause of endogeneity. It is impossible to know the direction of the causality, i.e. if the valuation or performance of the firm affects the ownership structure, and not the other way around. Controlling shareholders, with large ownership stakes and managerial positions, have large information advantage and can more readily invest in companies with good outlooks (Anderson and Reeb, 2003). However, compared to studies made in the U.S, where the management often is granted shares as compensation, the problem with reverse causality should not be as severe in our sample of Swedish firms (Cronqvist and Nilsson, 2003).

---

[3] Our dataset did not include any observations with Tobin's Q lower than 0.1
[4] Our dataset did not include any utility companies

Omitted variables affecting both the dependent variables and the ownership structure could also be a cause of endogeneity in our regressions. We have included control variables to handle some of the omitted variable bias, but we may still have endogeneity from omitted variables. A negative shock causing cash flow and value to fall can, for example, force the controlling owner to invest more. A spurious correlation between Tobin's Q and ownership stake will arise in that case (Cronqvist and Nilsson, 2003).

One of the most common ways to handle unobserved endogeneity is the use of instrumental variables. An instrumental variable is correlated to the suspected endogenous variable but exogenous with respect to the regression-equation and can thus be used as an estimate for the endogenous variable. Due to the difficulties of finding good variables, we find that the instrumental variable approach is beyond the scope of a bachelor thesis. In order to handle some of the endogeneity, we use control variables and control for industry and year effects in the OLS regressions (Oreland, 2007). The use of control variables may lead to multicollinearity, i.e. the control variables may be correlated with each other, not just the dependent variable. However, we have controlled our data for multicollineairty. The correlation coefficients are displayed in *table A3* in the appendix.

4.4 Descriptive statistics

To get an overview of our dataset, consisting of 1473 observations, we will in this section present our descriptive statistics. We have adjusted our dataset by excluding observations with a Tobin's Q over 10 and ROA at percentile 1% and 99%. Financial companies and utility companies have also been excluded. *Table I* contains a summary of the most important variables used in our regressions.

Table I

Return on Assets and Tobin's Q have the same definitions as outlined earlier in the text. Cash flow rights is the cash flow ownership by the largest shareholder. Voting rights is the voting rights of the largest shareholder. Wedge is the percentage difference between voting rights and cash flow rights.

Variables	Mean	Median	Std.dev	Min	Max	N
Return on Assets	1.80%	5.22%	15.08%	-44.22%	49.09%	1473
Tobin's Q	1.83	1.48	1.19	0.3	9.0	1473
Size (msek)	17 156	992	87 618	7	361 239	1473
Leverage	1.57	1.11	3.19	0.01	94.97	1473
Growth in sales	29.32%	6.86%	543.40%	-96.24'%	20 713.13%	1473
Dividend Yield	2.19%	1.25%	3.68%	0%	51.02%	1473
Wedge	9.7%	2.0%	12.5%	-30.20%	50.00%	1473
Cash Flow Rights	22.9%	19.0%	14.93%	2.2%	84.3%	1473
Voting Rights	32.6%	27.8%	20.33%	4.2%	89.5%	1473
Age	35	21	28	4	112	1473

As seen in *table I*, the difference between median values and mean values of many of the variables tend to be very high. The huge differences in size are largely due to the enormous amounts of assets of a few large cap firms. Another interesting statistic is that half of the companies in our sample have a shareholder with more than 27.8% voting rights, which strengthens our view that Swedish firms have a concentrated ownership pattern.

Our sample includes the years of the financial crisis that began to hit the stock market in late 2007. Between September in 2007 and December 2008, the Swedish stock market fell approximately 50%, affecting the values of Tobin's Q in our sample[5]. *Figure I* displays the great fall in Tobin's Q caused by the financial crisis. Thus, our regression analysis will include possible differences in the impact on valuation from the financial crisis between family and non-family firms.

<div align="center">

***Figure* I**

Average and median Tobin's Q

</div>
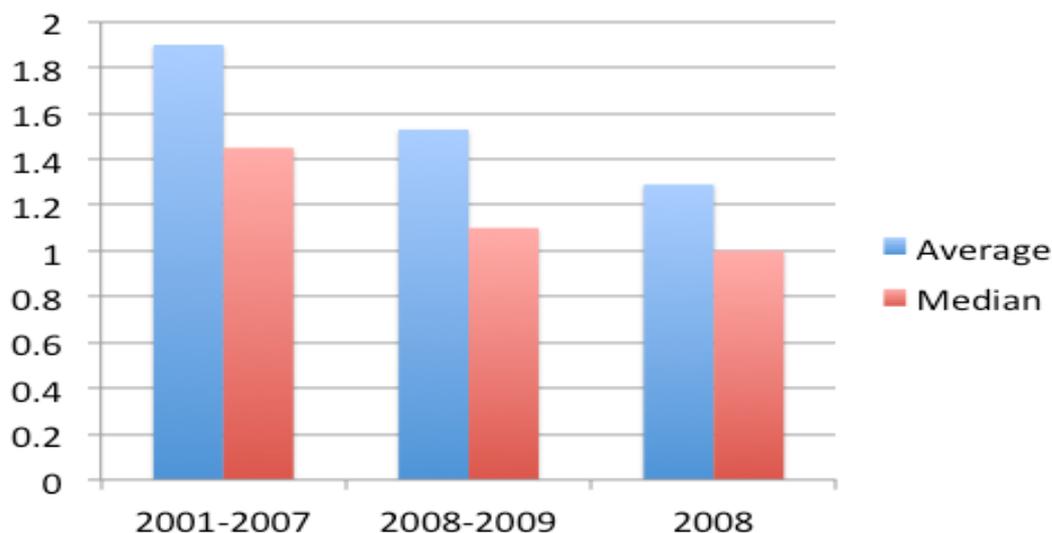
The non-adjusted dataset with mean values of the dependent variables in different industries are displayed in *table A4* in the appendix[6]. The table also displays the percentage of firms in each industry according to the industry benchmark classification. As we can see, most firms in our sample are either technology or industrial companies. Health care companies often have great disparities in ROA and Tobin's Q, possibly because they rely on R&D, immaterial assets, and hopes of future revenue. We can also see that financial companies and telecommunication companies have greater amounts of assets on average.

Figure II displays ROA and Tobin's Q of firms sorted by there age. There seems to be a positive relationship between firm age and performance and a weak negative relationship between

---

[5] Nasdaq OMXSPI

[6] The table includes statistics of all 1842 observations in our unadjusted data to see the initial needs of the adjustments made in the adjusted dataset used in the regression analysis.

firm age and valuation. One could expect that firms tend to perform better as they mature. Since age seem to have a positive effect on performance and a weak negative relationship with Tobin's Q, it is important to include it as a control variable (Oreland, 2007).

All firms are divided into groups by their ages and average ROA within each group. The range of ages in the groups is outlined on the x-axis.

Tobin's Q & ROA dependent on firm age
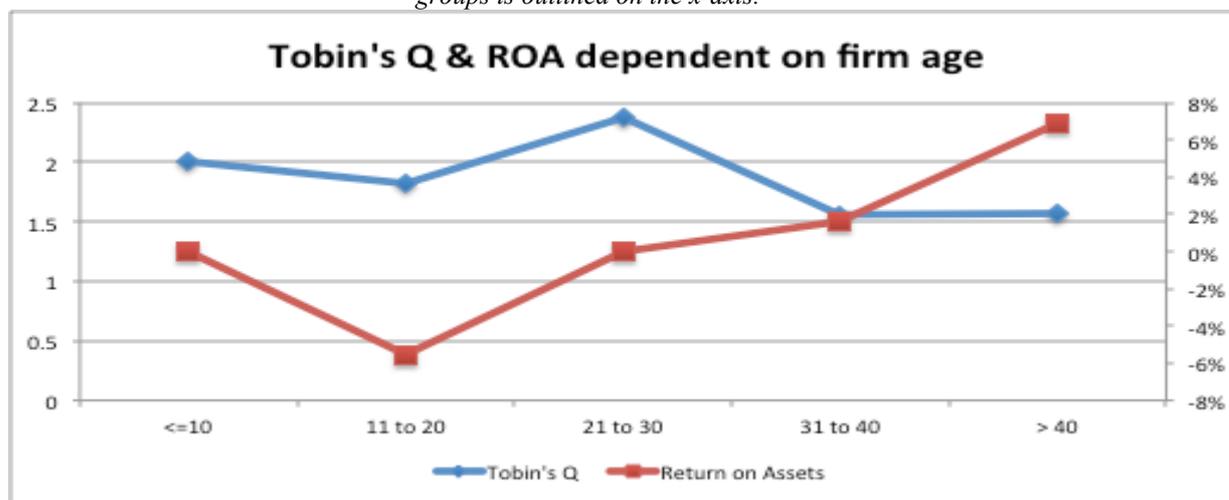
Table II contains descriptive statistics over family and non-family firms. A firm has to have a family with at least 25% of the voting rights as the largest shareholder to be classified as a family firm. 640 of a total 1473 firm observations are from family firms. There is a significant difference in performance between family firms and in non-family firms. The data shows higher ROA among family firms, which is in line with the evidence from Barontini and Caprio (2006). As expected, and also in line with the descriptive statistics of Barontini and Caprio (2006), the percentage difference in cash flow ownership and voting rights of the largest shareholder is higher among family firms. Even though family firms have higher wedge, it doesn't seem to give rise to lower valuation. However, the negative effect from the wedge is maybe compensated the higher ROA among family firms.

Table II

The data sample consists of 1473 firm observations between 2001 and 2009. Return on Assets and Tobin's Q has the same definition as outlined earlier in the text. Wedge is the percentage difference between voting rights and cash flow rights.

	Number of firms	Tobin's Q		Return on Assets		Wedge	
		Average	*Median*	*Average*	*Median*	*Average*	*Median*
Family firms	640	1.84	1.48	3.99%	5.78%	16.3%	18.4%
Non-family firms	833	1.82	1.48	0.12%	4.50%	4.6%	0.0%
Total	**1473**	**1.83**	**1.48**	**1.80%**	**5.22%**	**9.7%**	**2.0%**

In nearly 17% of the family firm observations, the CEO is a member of the controlling family. Firms with a family CEO seem to have a weaker performance but similar valuation to firms with a non-family CEO. When looking at *table III*, we can also see that the average wedge is higher in family firms with a family CEO.

Table III
Type of CEO in family firms

	Number of firms	Tobin's Q		Return on Assets		Wedge	
		Average	Median	Average	Median	Average	Median
Family firm with family CEO	107	2.05	1.61	2.64%	5.69%	23.7%	24.1%
Family firm with external CEO	533	1.80	1.44	4.26%	5.78%	6.8%	0.0%
Total	640	1.84	1.48	3.99%	5.78%	16.3%	18.4%

The wedge between cash flow ownership and voting rights has been a subject to a lot of attention in previous studies. A majority of the firm observations in our sample actually have some control-enhancing device in place. Many studies have found that the wedge seems to affect the valuation of the firm. We refer to *table IV*, were we have divided all observations into wedge classes by the size of their wedge. In this table, we can see a negative relationship between valuation and wedge size, which was also found by Barontini and Caprio (2006). The wedge size also seems to have a possible weak negative impact on performance, although no linear relationship can be found.

Table IV
The statistics in this table includes companies of our whole dataset before any exclusion of companies or outliers grouped by their wedge.

Wedge class	Number of firms	Tobin's Q		Return on Assets		Size (msek)	
		Average	Median	Average	Median	Average	Median
<0	49	1.83	1.29	2.51%	5.69%	33 697	577
No wedge	659	1.94	1.59	0.32%	4.35%	20 492	801
>0 - 9.99%	203	1.88	1.43	0.27%	5.16%	9 679	755
10 - 19.99%	191	1.51	1.34	2.36%	5.26%	15 728	1 141
20 - 29.99%	269	1.78	1.37	6.17%	6.11%	13 655	1 407
30 - 39.99%	69	1.70	1.39	-0.38%	5.49%	16 975	1 226
> 39.99%	33	1.70	1.48	6.61%	5.83%	10 121	5 806
Total	1473	1.83	1.48	1.80%	5.22%	17 156	992

4.4.1 Summary of descriptive statistics

• To reduce differences in mean and median values, observations at 1st and 99th percentile for ROA are excluded and firm observations with a Tobin's Q over 10 are excluded before running the regressions.

• Family firms have a higher average ROA

• The financial crisis led to significantly lower values of Tobin's Q in 2008.

• Mature firms seem to have higher performance

• Family firms tend to have higher separation between voting rights and cash flow ownership.

• Higher wedge seems to have a negative impact on valuation

5. Results

In this section, we will present the results from our OLS regressions with White's robust standards errors.

5.1 Performance

In this section, we will provide the results of our OLS regression on family control for performance.

Table V

This table shows the result from the OLS regressions made with return on assets as the dependent variable. The two first variables are dummies taking the value of 1 if the largest owner is a family and holds more than 25 or 50 percent of voting rights respectively. If not, they take the value of 0. Capital largest is the cash flow rights held by the largest shareholder. Wedge is the discrepancy between voting rights and cash flow rights of the largest shareholders. The rest are control variables for age, size, leverage and growth.

VARIABLES	(1) ROA	(2) ROA	(3) ROA	(4) ROA	(5) ROA
Family firm > 25%		0.0478***	0.0353***		
		(0.00710)	(0.00772)		
Family firm > 50%				0.0461***	0.0232**
				(0.00796)	(0.00978)
Capital largest	0.0016***		0.0010***		0.0013***
	(0.00026)		(0.0001)		(0.00031)
Wedge	-0.0018		-0.0059		-0.0041
	(0.00388)		(0.00385)		(0.00408)
Ln Age	0.0053	0.0032	0.0043	0.0043	0.0049
	(0.00413)	(0.00399)	(0.00431)	(0.00431)	(0.00413)
Ln Size	0.0249***	0.0246***	0.0255***	0.0246***	0.0255***
	(0.00241)	(0.00239)	(0.00240)	(0.00245)	(0.00244)
Leverage	-0.0060**	-0.0057**	-0.0060**	-0.0055**	-0.0059**
	(0.00247)	(0.00223)	(0.00238)	(0.00239)	(0.00249)
Growth in Sales	-0.0020***	-0.0020***	-0.0021***	-0.0019***	-0.0020***
	(0.00027)	(0.00028)	(0.00027)	(0.0003)	(0.00027)
Observations	1 473	1 473	1 473	1 473	1 473
R-squared	0.2312	0.2294	0.2403	0.2183	0.2333

White's robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

In *table V* we display the results of the OLS regressions over the relation between corporate performance and family control. We have used two different dummies for family control. One where the family owns more than 50% of the voting rights, and the other where they own more than 25% of the voting rights. Our first definition, a family holding more than 25% of the voting rights, is assumed to be a sufficient amount of voting power to be in control of the firm and is the most commonly used definition for family control from previous research. (Oreland, 2007; Cronqvist and

Nilsson, 2003). Our second definition, a family holding a majority of the voting rights, is used as the strict definition for family control.

Apart from the age variable, all our control variables are significant. Column 1 displays the results of the regression where the family control dummies are omitted, testing only the relationship between the accounting profitability and the wedge and share cash flow rights held by the largest shareholder. The results show a very weak but positive relationship between our performance measure, ROA, and the cash flow rights held by the largest shareholder, in line with the results of previous research (Barontini and Caprio, 2006). The relation between wedge and ROA is negative but non-significant, also as expected from previous research.

In column 2-5 we introduce our dummies for family control. The coefficients of the family dummies are all positive and significant. Family firms in our sample perform better than non-family firms and we can thus reject hypothesis 1. After introducing the family dummies, the coefficients on the cash-flow rights are weaker, however, still positive and significant. The coefficient of the wedge between voting rights and cash flow rights of the largest shareholder still shows a negative and non-significant result.

As mentioned earlier in the text, an extensive use of control-enhancing devices is suspected to lower the profitability of the firm. Families often rely on these, and it is therefore interesting to study the results of the regressions on the relationship between performance and family control. The regressions in column 3 and 5, with the cash-flow rights and wedge included, show the results of the effect of family control separated from the effect of the wedge and cash flow-rights of the largest shareholder. These family coefficients are both positive and statistically significant at the 5% level, indicating that family firms tend to perform better given any combination of wedge and cash flow rights of the largest shareholder. The coefficient of regressions 2 and 5, measuring the joint effect of ownership structure and family control, are higher than those with the ownership variables included – opposite to what could be expected considering that families might tend to choose less efficient ownership structures.

5.2 Valuation

In *table VI* we display the results of the OLS regressions over the relation between valuation and family control. We use the same family specific variables as in our regressions for performance but have included dividend yield as an additional control variable, as it is a driver of market valuation.

Table VI

This table shows the result from the OLS regressions of firm valuation made with Tobin's Q as dependent variable. The two first variables are dummies taking the value of 1 if the largest owner is a family and control over 25 and 50 percent of voting rights respectively. If not, they take the value of 0. Capital largest is the cash flow rights held by the largest shareholder. Wedge is the discrepancy between voting rights and cash flow rights of the largest shareholders. The rest are control variables for age, size, leverage, dividend yield and growth.

VARIABLES	(1) Ln Tobin's Q	(2) Ln Tobin's Q	(3) Ln Tobin's Q	(4) Ln Tobin's Q	(5) Ln Tobin's Q
Family firm > 25%		0.0207	0.0194		
		(0.02437)	(0.0274)		
Family firm > 50%				0.0199	0.0184
				(0.03137)	(0.03722)
Capital largest	0.0009		0.0005		0.0006
	(0.00086)		(0.0001)		(0.00102)
Wedge	-0.0317**		-0.0339**		-0.0335**
	(0.0125)		(0.01330)		(0.01345)
Ln Age	0.0142	0.0065	0.0136	0.0070	0.0138
	(0.01534)	(0.01488)	(0.01528)	(0.01486)	(0.0153)
Ln Size	-0.01487**	-0.0168**	-0.0145*	-0.0168**	-0.0144*
	(0.00745)	(0.00720)	(0.0075)	(0.00756)	(0.00770)
Leverage	-0.0121*	-0.0111*	-0.0121	-0.0110*	-0.0120
	(0.00666)	(0.00608)	(0.00661)	(0.00614)	(0.00667)
Dividend Yield	-1.6533***	-1.6670***	-1.6757***	-1.6537***	-1.6668***
	(0.30935)	(0.31371)	(0.31183)	(0.31519)	(0.31313)
Growth in Sales	0.0041***	0.0043***	0.0041***	0.0043***	0.0041***
	(0.00103)	(0.00104)	(0.00103)	(0.00104)	(0.00102)
Observations	1 473	1 473	1 473	1 473	1 473
R-squared	0.1951	0.1894	0.1953	0.1892	0.1952

White's robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Looking at the regression results in *table VI*, we can see that the effect of family control are positive for valuation at both 25 and 50 percent of voting rights. This result is in conflict with hypothesis 2, indicating that family control and valuation are positively related. However, the results are insignificant at every regression run in *table VI*, therefore we cannot draw any firm conclusion from it.

Cash flow rights held by the largest owner has a very weak positive effect on Tobin's Q which is in line with hypothesis 3. However, this variable is also insignificant throughout the regressions shown in *table VI*. Wedge on the other hand is statistically significant at the 5 percent level throughout the regressions. Thus, in accordance to what we expected (hypothesis 4), the wedge has a negative effect on firm valuation.

To further understand the result shown in *table VI*, we will take a deeper look comparing the result from the several regressions done. In our first test, column 1 *table VI,* we show the results from regression run without any family specific variable. The attention of the regression is solely on the

share specific variables, capital largest and wedge. These two variables describes the average effect of ownership structure chosen by the largest owner by indicating how cash flow rights and share of voting rights held by the owner affects valuation. An increase of one percentage in wedge decreases Tobin's Q by approximately 3.25%[7]. When comparing that to column 3 and 5, we see that the negative effect of the wedge is even bigger when including the family dummy variables, even though the difference is marginal. The negative effect on valuation is most evident when family firms with over 25% of votes are included, with a negative effect of 3.5%. The negative effect on valuation from the wedge is in line with the results of most previous studies. However, our coefficients are slightly higher. Barontini and Caprio (2006) found a negative effect of 0.4% from one percent increase in the wedge, while we find an effect of 3.25-3.5% on Tobin's Q.

The family specific variables all show a positive relationship to Tobin's Q. If comparing column 2 to 4 and 3 to 5, we can conclude that the positive effect of family control on valuation is larger when all firms with a controlling family with over 25% of the votes are included, not just the ones over 50%. The effect of the family effect on valuation is though more "pure" when capital largest and wedge are included, since otherwise the ownership structure also affects the family dummy. The differences in the coefficients when comparing column 2 to 3 and 4 to 5 are very small compared to the differences Barontini and Caprio (2006) gets. When Barontini and Caprio (2006) examine a "pure family effect", separated from effects of ownership structure, by adding capital largest and wedge to the regression, they get a coefficient almost twice the size when only measuring an "overall family effect" with capital largest and wedge excluded. We do, on the other hand, get the opposite difference and only a very small such between the "pure family effect" and the "overall family effect". However, keep in mind that none of the family dummy variables are significant in our regressions, thus no conclusions can be drawn from our result.

5.3 Family CEO

In this section, the results for the OLS regressions on family CEO on performance and valuation are displayed. We run the regressions on the whole sample, not just the family firms. The coefficients of the CEO-dummies therefore inform us the difference from non-family firms. By comparing the coefficients of the two CEO-dummies, we can draw conclusions on the differences in performance and valuation between the two types of CEOs.

---

[7] After conversion from logarithmic form

Table VII

This table shows the result from the OLS regressions of firm performance and valuation made with ROA and Tobin's Q as dependent variables. The variable family CEO is a dummy variable taking the value of 1 when a family firm is controlled with over 25 percent of votes by the largest shareholder and has a CEO appointed from within the family, if not, it takes the value of 0. The variable family with ext. CEO is a dummy variable taking the value of 1 if it's a family firm controlled with over 25 percent of votes by the largest shareholder but the CEO are not appointed from within the family, if not, it takes the value of 0. Capital largest is the cash flow rights held by the largest shareholder. Wedge is the discrepancy between voting rights and cash flow rights of the largest shareholders. The rest are control variables for age, size, leverage, dividend yield and growth.

VARIABLES	(1) ROA	(2) ROA	(3) Ln Tobin's Q	(4) Ln Tobin's Q
Family CEO	0.0837***	0.0674***	0.0790*	0.102*
	(0.0149)	(0.0165)	(0.0440)	(0.0523)
Family with ext. CEO	0.0401***	0.0241***	0.00706	0.00751
	(0.00713)	(0.00833)	(0.0255)	(0.0311)
Capital largest		0.00119***		0.00134
		(0.000266)		(0.000924)
Wedge		-0.00686		-0.214*
		(0.0288)		(0.111)
Ln Age	0.00515	0.00590	0.00407	0.00947
	(0.00443)	(0.00449)	(0.0168)	(0.0170)
Ln Size	0.0256***	0.0264***	-0.0140*	-0.0113
	(0.00246)	(0.00246)	(0.00752)	(0.00765)
Leverage	-0.00506**	-0.00501**	-0.00987	-0.0104
	(0.00233)	(0.00226)	(0.00667)	(0.00679)
Growth in Sales	-0.00197***	-0.00198***	0.00439***	0.00427***
	(0.000287)	(0.000287)	(0.00105)	(0.00105)
Dividend Yield			-1.671***	-1.671***
			(0.314)	(0.312)
Observations	1 473	1 473	1 473	1 473
R-squared	0.234	0.244	0.188	0.192

White's robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The regressions of both family CEO variables on ROA are positive. The regressions on general family effect earlier in the thesis was positive, and we therefore expected that the results for both CEO dummies would be positive as well. The effect of a family controlled firm with a CEO from within the family is clearly positive and statistically significant, meaning that there is statistical evidence that those firms perform better than non-family firms. Family firms with external CEO have a weaker, but still better performance, than non-family firms. Thus, the results indicate that firms with a family CEO perform better than those with an external CEO, but both perform better than non-family firms.

Disclosed in *table VII* are also the effect on valuation of having family CEO managing the firm compared to non-family firms. As can be seen by the results, family CEO also has a positive effect

on valuation. The positive effect of family CEO on valuation are higher when controlling for the ownership structure (column 4) than not (column 3). These results are interesting, because we did not get significant results in our regressions on the effects of family control on valuation. Thus, family control is positive for valuation when the firm has a family CEO. However, the performance is also better among firms with a family CEO.

The coefficient for family firms with an external CEO is positive but not significant. Because the external CEO-dummy is non-significant, no conclusion can be drawn if family firms with family CEO are higher valued than family firms with external CEO. Wedge has a negative effect on valuation in this regression model too, in line with expectations.

Hypotheses	Result
Hypothesis 1 – Family firms do not perform better than non-family firms	Family firms has better performance than non-family firms
Hypothesis 2 – Family firms do not have higher valuation than non-family firms	Positive relation between family control and valuation, though statistically non-significant
Hypothesis 3 – Family firms valuation and performance increases the more cash flow rights the largest shareholder possesses	Cash flow rights held by the largest shareholder have a weak positive effect on performance For valuation, the results obtained also show a weak positive effect, though statistically non-significant
Hypothesis 4 – Family firms valuation and performance decreases in the wedge between voting rights and cash flow rights for the largest shareholder	Family firms valuation decreases in the wedge between voting rights and cash flow rights For performance, the results obtained also show a negative effect from the wedge, though statistically non-significant.
Hypothesis 5 – Family firms with CEO appointed from within the family does not perform better or are valued higher than family firms with externally recruited CEO	Family firms with family CEO have better performance than family firms with external CEO. Family firms with family CEO has a positive effect on valuation, but no conclusion can be drawn if it is better than family firms with external CEO can be made from the result.

5.4 Summary of regression analysis

- Family controlled firms perform better than non-family firms given any combination of cash flow rights and voting rights.
- Family control has a positive, although non-significant, effect on firm valuation
- Cash flow ownership of the largest shareholder has a weak positive effect on performance
- The wedge has a strong negative effect on valuation
- Family CEO has a positive effect on performance and valuation
- Family firms with a family CEO perform better than family firms with an external CEO

6. Robustness tests

6.1 Robustness of results

To be able to interpret the estimated coefficients correctly, the robustness of the results is important. There are several methods to perform robustness tests. In this thesis we have tested the robustness by running fixed-effects regressions and regressions on a family control variable with another cut-off value for control. These two methods, among others, have been used in previous studies.

In our regression analysis, we used 25% ownership of voting rights as our main criteria for family control. To test the robustness and whether the effect of family control depend on the level of voting rights, regressions were also done on a family control variable with a cut-off value of 50%. The estimation of that variable did not differ much from the previously used variable.

To further check the robustness, a fixed effects regression on the same variables was estimated. It did not give any significant results, possibly because some of our firms only have a few years of observations. We capture the fixed effects by including dummies for industry and year in our OLS regressions, thus we have chosen to exclude the results of our fixed effects regressions from this thesis.

6.2 Clustered regression

In our primary regressions, we use White's robust standard errors. As a robustness test, we also run regressions with clustered standard errors. Since we have year observations of variables from different companies, we use cluster to make observations within each cluster more similar. The results of the cluster regressions are displayed in *table A5* in the appendix. All in all, the results of these regressions are the same as those without cluster. We therefore use the most commonly used regressions method from previous studies as our primary regression method, namely OLS with White's robust standard errors.

7. Analysis

7.1 Performance

Family controlled firms have a higher performance, ROA, than non-family firms. We can thus reject our hypothesis that family firms do not have higher performance than non-family firms. This positive effect of family control on performance is in line with the results of previous studies (Anderson and Reeb, 2003; Barontini and Caprio, 2006). As seen in *table II*, from the descriptive statistics, the average and median ROA are higher for family firms. Thus our regression analysis conforms to our descriptive statistics. Previous studies have also often found that the wedge, i.e. the use of control-enhancing devices, has a negative effect on valuation. The same effects have not been found on performance. In our case, the coefficients for wedge were negative but non-significant. Controlling for wedge and cash flow rights of the largest shareholder, the positive effect on performance becomes weaker and less significant. This means that some of the higher performance probably comes from the positive effect of larger cash flow ownership. Even so, ROA is 3.5 percentages higher given any combination of wedge and cash flow rights of the largest shareholder.

The higher performance for family firms contradicts the general view of family ownership and control in theory. The potential problems linked to family control, such as *minority expropriation* and *altruism,* does not seem to have the negative effects that are discussed in theory, or possibly, the positive aspects of family control make more than up for the negative effects outlined in the theory section. Perhaps it is the benefit of less agency cost linked to the shared objectives for the principal and the agent that lead to cost savings associated with monitoring and incentives (Dyer, 2006). It could also be that families to a higher degree are committed for the long haul that leads to longer investment horizons and less of myopic investments and decisions behavior (James, 1999; Stein 1988, 1989). Clearly, however, the fear that the controlling family expropriates the minority shareholders by mainly using the firm as an instrument for maintaining power through empire building and not making decisions from what is best from a cash flow perspective is exaggerated.

It is though important to recognize that the model may suffer from endogeneity. As mentioned in the method section, there is no way of knowing the direction of causality. There is a chance that it is performance that affects the ownership structure, not the other way around. For example, controlling shareholders have an information advantage and can therefore readily invest or sell companies depending on the outlook (Anderson and Reeb, 2003). Performance may also affect the ownership structure when cash flow deteriorates (i.e. performance getting worse), since the firm may have to recapitalize and the controlling family might not be in a financial situation that allows them to contribute with funding. That way, the family's ownership stake gets diluted and the family might

therefore lose its controlling position (Cronqvist and Nilsson, 2003). This means that bad performing family firms may convert to being non-family firms instead and therefore misleading us on the positive effect of family control.

7.2 Valuation

The positive family effect obtained in *table VI* is in line with the study of Barontini and Caprio (2005) from Europe and the study of Anderson and Reeb (2003) from the U.S. However, the results are in conflict with those of Oreland (2007) from the Swedish market. One reason for that may be that Oreland used a sample of observations over the years 1985-2000 while our dataset contains observations from the years 2001-2009. Oreland's main argument to why firm valuation is lower in family controlled firms is that families are more inclined to use corporate control devices such as dual shares and pyramid structures. That separation of control and ownership potentially leads to increased costs from private benefits for the minority, i.e. minority expropriation. In our results, the separation between cash flow ownership and voting rights has a negative effect on valuation, thus we can see evidence of the negative association between the wedge and minority expropriation in our results. However, family firms do not seem to be valued lower than non-family firms, although family firms to a greater extent tend to make use of control-enhancing devices. The fear of minority expropriation does not seem to give family firms any discount to non-family firms in our study. One possible explanation for that may be that the fear of minority expropriation using control-enhancing devices is exaggerated (Barontini and Caprio, 2005). The negative effect of the wedge was anticipated, since both theory and earlier studies has been in agreement of this negative relationship (Amit and Villalonga, 2006; Cronqvist and Nilsson, 2003).

Family firms with over 25 percent of voting rights and non-family firms have mean values of 16.3% and 4.3% in wedge, respectively. If we control for the wedge, which has a negative relation to valuation, families still have a positive effect on valuation regardless if we control for ownership structure or not in the regressions. An explanation to that could be that the results are non-significant and therefore the coefficients are not fully reliable. Thus, we cannot reject our hypothesis 2 that family firms are not valued higher than non-family firms. However, the relation between family firm and valuation are positive, although non-significant, so it seems that the fear of *minority expropriation* and *altruism* does not lead to a discount on family firms after all. Cronqvist and Nilson (2003) believe that family firms should be given a discount because they are 50 percent less likely to be acquired does not really appear on our result. Although our results for Tobin's Q are insignificant, we would expect that family firms are given a premium valuation that conform with the their better performance.

7.3 Family CEO

In *table VII* we want to examine the effect of different degrees of involvement of the family. Many previous studies have estimated the effects of having a CEO from the founder family versus a descendant CEO by comparing these effects to the performance and valuation of non-family firms. Due to lack of data, we were only able to estimate the difference between family firms with a family CEO with those with an external CEO, without taking the founder-descendant perspective into account.

As seen in *table VII*, the operating performance of the firms with a family CEO is higher than for firms with a non-family CEO. The coefficient for valuation among family is also positive, and significant at the 10% level. This is interesting because we did not get any significant results on the general family control dummy on valuation but we get significant results for higher valuation for family firms with a family CEO. This indicates that family firms with a family CEO are higher valued than non-family firms, possibly due to the higher performance of firms with a family CEO. However, the coefficient for family firms with an external CEO is not significant. We can thus reject our hypothesis 5 regarding performance, but we cannot fully reject that the valuation is higher for firms with a family CEO than for firms with an externally recruited CEO.

The better performance among firms with a family CEO could stem from lower agency costs. A CEO from the controlling family often shares the same objectives as the owners, since he by definition, in our study, also is a family member of the largest shareholder. On the other hand, the positive effect of a family CEO contradicts the theory that the smaller recruitment pool and the tendency to keep bad performing family members should hamper the performance.

8. Conclusion

This thesis analyzes the effects of family control on firm performance and valuation using a sample of Swedish companies listed on Nasdaq OMX Stockholm between the years of 2001 to 2009. The analysis is done on both descriptive statistics and results from regressions. By reviewing current literature, we have then tried to give possible explanations behind the given effects of our results.

The results show that firms controlled by a family perform better compared to firms with other categories of controlling owners. Larger cash flow ownership of the largest shareholder is also positive for the firm's operating performance. One of the most interesting results in our thesis is that, although families often make use of control-enhancing devices, associated with lower performance, families tend to perform better than other controlling owners given any combination of cash-flow ownership and voting rights. Among family-controlled firms, those with a family member as CEO perform better than those with an external CEO, which could stem from the fact that the family CEO by definition also is the largest owner, reducing agency costs.

We find a positive, although non-significant, effect from family control on valuation, indicating that investors are willing to pay a premium for the better performance among family controlled firms. A higher wedge, i.e. difference between cash flow ownership and voting rights, decreases firm value. This could be a consequence of an extensive use of control-enhancing devices, resulting in non-value maximizing decisions that are detrimental to other shareholders. Firms with a family CEO have higher valuation than non-family firms. No statistically significant results are found on the relationship between external CEO and valuation, thus we cannot draw any conclusion whether external CEOs are worse for valuation than family CEOs.

Taken together, our results show that families tend to be more successful compared to other categories of controlling owners, which contradicts many theories revolving around controlling owners and family ownership.

9. Future research

Our results in this paper can been seen as a foundation for more research on the subject. To further investigate the affects family control has on firm performance and valuation, it would be interesting to examine if family control affects the various industries differently. This way, it is also possible to look at financial companies separately, which would be interesting since our perception is that in Sweden there are a lot of successful family controlled portfolio companies that has prospered for decades, e.g. Investor, Kinnevik and Lundbergs.

Another aspect interesting to further investigate on the Swedish market would be to take a closer look at family members involved in management and what effect that has on performance and valuation, since our paper only briefly cover the management dimension. For example, distinguish between founder CEO and descendant CEO when examining effects of family CEOs.

10. References

Anderson, R. C. and Reeb, D. M. (2003)"Founding-family ownership and firm performance – evidence from S&P 500", The journal of finance, No 3, June 2003, pp.1301-1328

Barontini, R. and Caprio, L. (2006)"The effect of family control on firm value and performance. Evidence from continental Europe.", European financial management, Vol.12, No 5, June 2006, pp.689-723.

Cronqvist, H. and Nilsson, M (2003)"Agency costs of controlling minority shareholders", Journal of financial and quantitative analysis, Vol. 38, No. 4, December 2003, pp. 695-719.

Demsetz, H. and Villanlonga, B.,(2001)"Ownership structure and corporate performance." Journal of corporate finance 7, june 2001, pp. 209-233

Dyer, G. W. (2006), "Examining the family effect on firm performance", Family business review, 19, pp. 253-273.

Jensen, M. and Meckling, W, (1976), "Theory of the firm: Managerial behavior, agency cost and ownership structure", Journal of financial economics 3 (1976), pp. 305-360.

James, H. (1999), "Owner as manager, extended horizons and the family firm", International Journal of the Economics of Business 6, pp. 41-56.

La Porta, R., Lopez-de-Silanes, F, Shleifer, A., (1999), "Corporate ownership around the world", The Journal of Finance, 57, pp. 1147-1170.

Oreland, C., (2007), "Family control in Swedish public companies – implications for firm performance, dividends and CEO compensation", Doctoral thesis, Uppsala university.

Shleifer, A. and Vishny, R (1997), "A survey on corporate governance", The Journal of Fnance 52, No. 2, pp. 737-783.

Stein, J. (1988), "Takeover threats and managerial myopia, Journal of Political Economy 96, pp. 61-80

Stein, J. (1989) "Efficient capital markets, inefficient firms: A model of myopic corporate behavior", Quarterly Journal of Economics 103, pp. 655-669

Zellweger, T. (2006), "Risk, return and value in the family firm", Dissertation at the University of St.Gallen

11. Appendix

11.1 Table A1 – Previous research

Author	Performance		Valuation		Wedge		Capital largest	
	Metric	*Effect*	*Metric*	*Effect*	*Effect on performance*	*Effect on valuation*	*Effect on performance*	*Effect on valuation*
Barontini and Caprio (2006)	ROA	+	Tobin's Q	+	Non-significant	-	Non-significant	Non-significant
Anderson and Reeb (2003)	ROA	+	Tobin's Q	+			+	
Oreland (2007)	Tobin's Q	-						
Cronqvist and Nilsson (2003)	ROA	-	Tobin's Q	-		-		
Amit and Villanlonga (2001)			Tobin's Q	Non-significant		-		+

11.2 Table A2 – Definition of variables

Variable	Definition
Family Firm > 25%	Dummy variable with value of 1 if the largest owner is a family and holds more than 25% of the voting rights. Otherwise the variable takes the value of 0
Family Firm > 50%	Dummy variable with value of 1 if the largest owner is a family and holds more than 50% of the voting rights. Otherwise the variable takes the value of 0
Capital Largest	Variable that specifies how much cash flow rights the largest shareholder holds
Wedge	Percentage difference between voting rights and cash flow rights
Family CEO	Dummy variable with the value of 1 if the firm is controlled by a family and has a family CEO. Otherwise the variable takes the value of 0.
Return on Assets	Operating profit divided by total assets
Tobin's Q	Market capitalization + book value of debt divided by total assets
Ln Age	Firm age (as a logarithm)
Ln Size	Defined as total assets (as a logarithm)
Growth in Sales	The difference between this year sales and last year sales, in percent.
Leverage	Defined as debt to equity
Dividend Yield	Dividends divided by the market value of equity

11.3 Table A3 – Correlation Matrices

	Correlation matrix of variables used in Mangement regressions						
	Size	Age	Dividend Yield	Debt to Equity	Growth	Capital largest	Wedge
Size	1.00						
Age	0.30	1.00					
Dividend Yield	0.09	0.24	1.00				
Debt to Equity	0.04	0.02	0.07	1.00			
Growth	-0.01	-0.02	-0.03	-0.01	1.00		
Capital largest	-0.04	0.01	0.09	0.02	0.01	1.00	
Wedge	0.16	0.23	0.03	-0.02	-0.02	-0.31	1.00
Family CEO	-0.08	-0.04	0.01	-0.01	-0.01	0.15	0.10
Non-family CEO	-0.08	0.15	0.11	0.04	0.03	0.41	0.05

	Correlation of Variables in Regressions							
	Size	Age	Dividend Yield	Debt to Equity	Growth	Capital largest	Wedge	Family Firm
Size	1.00							
Age	0.31	1.00						
Dividend Yield	0.09	0.24	1.00					
Debt to Equity	0.04	0.02	0.07	1.00				
Growth	-0.01	-0.02	-0.03	-0.01	1.00			
Capital largest	-0.04	0.01	0.09	0.02	-0.02	1.00		
Wedge	0.16	0.23	0.03	-0.02	-0.02	-0.31	1.00	
Family Firm	-0.12	0.12	0.11	0.03	0.02	0.48	0.10	1.00

11.4 Table A4 – Data by industry

DATA BY INDUSTRY		Oil & Gas	Basic Materials	Industrials	Consumer Goods	Health Care	Consumer Services	Telecommunications	Utilities	Financials	Technology	Total
Share of total firm		0.38%	3.1%	30.96%	7.88%	8.91%	9.56%	1.79%	0%	7.16%	20.26%	100%
Tobin's Q	Average	2.15	1.22	1.77	1.52	3.00	2.23	1.63	-	1.22	1.98	1.83
	Median	1.84	1.09	1.44	1.32	2.10	1.65	1.56	-	1.04	1.52	1.37
Return on Assets	Average	10.09%	5,59%	1.22%	6.46%	-8.51%	3.97%	-4.86%	-	2.48%	-4.99%	0.07%
	Median	6.72%	4.19%	5.36%	6.69%	1.18%	7.00%	4.61%	-	4.96%	2.80%	5.02%
Size (msek)	Average	14 130	14 688	13 804	15 154	3 315	7 425	66 831	-	105 062	5 854	27 776
	Median	17 197	2 434	1 531	1 405	371	1 738	42 379	-	5 100	361	1 173
Leverage	Average	0.99	1.21	1.68	2.52	0.92	1.58	1.04	-	3.34	1.03	1.81
	Median	1.03	0.96	1.44	1.40	0.32	1.25	0.69	-	1.28	0.73	1.10
Growth in Sales	Average	73.80%	24.71%	9.46%	8.67%	161.89%	15.57%	22.00%	-	175.37%	14.55%	54.62%
	Median	48.46%	2.46%	6.74%	6.21%	9.56%	9.39%	12.15%	-	3.30%	5.70%	6.16%

11.5 Table A5 – Clustered regression

VARIABLES	(1) ROA	(2) ROA	(3) ROA	(4) ROA	(5) ROA
Family firm > 25%		0.0471***	0.0275**		
		(0.0123)	(0.0136)		
Family firm >50%				0.0461***	0.00612
				(0.0138)	(0.0201)
Capital largest	0.00165***		0.00124***		0.00158***
	(0.000399)		(0.000416)		(0.000463)
Wedge	0.0652		0.0190		0.0548
	(0.0452)		(0.0484)		(0.0605)
Ln Age	0.00583	0.00497	0.00519	0.00691	0.00592
	(0.00866)	(0.00860)	(0.00865)	(0.00858)	(0.00870)
Ln Size	0.0250***	0.0247***	0.0255***	0.0248***	0.0252***
	(0.00460)	(0.00459)	(0.00456)	(0.00474)	(0.00466)
Leverage	-0.00468**	-0.00505**	-0.00493**	-0.00463**	-0.00468**
	(0.00216)	(0.00232)	(0.00221)	(0.00233)	(0.00217)
Growth in Sales	-0.00197***	-0.00203***	-0.00203***	-0.00192***	-0.00197***
	(0.000294)	(0.000296)	(0.000291)	(0.000301)	(0.000295)
Observations	1,462	1,462	1,462	1,462	1,462
R-squared	0.235	0.229	0.240	0.219	0.235

Robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

VARIABLES	(1) Ln Tobin's Q	(2) Ln Tobin's Q	(3) Ln Tobin's Q	(4) Ln Tobin's Q	(5) Ln Tobin's Q
Family firm > 25%		0.0184	0.0148		
		(0.0516)	(0.0676)		
Family firm > 50%				0.0160	0.0217
				(0.0766)	(0.103)
Capital largest	0.00167		0.00145		0.00144
	(0.00180)		(0.00214)		(0.00221)
Wedge	-0.133		-0.158		-0.170
	(0.206)		(0.251)		(0.255)
Ln Age	0.00807	0.00364	0.00778	0.00441	0.00843
	(0.0402)	(0.0399)	(0.0401)	(0.0396)	(0.0406)
Ln Size	-0.0137	-0.0154	-0.0134	-0.0155	-0.0132
	(0.0172)	(0.0168)	(0.0172)	(0.0176)	(0.0178)
Leverage	-0.0101	-0.00985	-0.0102	-0.00970	-0.0101
	(0.00772)	(0.00790)	(0.00773)	(0.00781)	(0.00775)
Dividend Yield	-1.635***	-1.646***	-1.646***	-1.633***	-1.643***
	(0.464)	(0.464)	(0.465)	(0.478)	(0.474)
Growth in Sales	0.00420***	0.00429***	0.00417***	0.00433***	0.00420***
	(0.00105)	(0.00103)	(0.00107)	(0.00102)	(0.00105)
Observations	1,462	1,462	1,462	1,462	1,462
R-squared	0.190	0.187	0.190	0.187	0.190

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) ROA	(2) ROA	(3) Ln Tobin's Q	(4) Ln Tobin's Q
Family CEO	0.0837***	0.0674***	0.0790	0.102
	(0.0245)	(0.0252)	(0.0862)	(0.105)
Family with ext. CEO	0.0401***	0.0241*	0.00706	0.00751
	(0.0122)	(0.0136)	(0.0537)	(0.0678)
Capital largest		0.00119***		0.00134
		(0.000423)		(0.00216)
Wedge		-0.00686		-0.214
		(0.0495)		(0.262)
Ln Age	0.00515	0.00590	0.00407	0.00947
	(0.00869)	(0.00876)	(0.0399)	(0.0401)
Ln Size	0.0256***	0.0264***	-0.0140	-0.0113
	(0.00468)	(0.00465)	(0.0171)	(0.0174)
Leverage	-0.00506**	-0.00501**	-0.00987	-0.0104
	(0.00239)	(0.00231)	(0.00796)	(0.00784)
Growth in Sales	-0.00197***	-0.00198***	0.00439***	0.00427***
	(0.000298)	(0.000294)	(0.00105)	(0.00107)
Dividend Yield			-1.671***	-1.671***
			(0.465)	(0.467)
Observations	1,462	1,462	1,462	1,462
R-squared	0.234	0.244	0.188	0.192

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$