

Family and Dispersed Ownership in Swedish, Public Companies

An Analysis of Costs of Private Benefits of Control and Agency Costs

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Abstract

This paper examines the relationship between corporate ownership structure and firm performance, approximated by Tobin's Q. I distinguish between costs of private benefits of control, due to expropriation of minority shareholders, and agency costs, due to poor management. Data on 144 Swedish public companies observed over the years 1985 to 2000, are used in fixed firm-effects estimations. The results indicate that family control, per se, leads to slightly worse firm performance than a dispersed ownership structure with a professional manager in control. The agency costs associated with family control are larger than the costs of private benefits of control associated with professional managers and a dispersed ownership structure. It is argued that this is mainly caused by entrenchment of founder heirs, exhibiting poor management skills, which in turn leads to agency costs. Furthermore, if the family controls the CEO-position the negative effect on firm performance increases. The argument for this is that the CEO-position entrenches the owner even further, which amplifies the agency costs. This effect mainly stems from founder family controlled firms, where the agency costs are already high. Dual-class shares in combination with a CEO-position, further deteriorates firm performance. The owner is powerful enough to extract more private benefits, when his or her incentives to do so are greater. Since it is quite common for families to control the CEO-position, and the use of super-voting shares is widespread, family firms perform worse than firms with dispersed ownership. In particular, founder family firms have the worst firm performance. This is partly explained by the fact that these owners have, in many cases, inherited their position, thus lacking the right skills, but also because of the prevalent control of the CEO-position, and use of super-voting shares.

1. Introduction

Looking at the ownership structures of firms around the world, the typical firm is controlled by a large shareholder, in the form of a family. This is in contrast to Berle and Means's (1932) classical image of the modern firm being characterized by a dispersed ownership structure, with many small shareholders, and the control in the hands of a professional manager. Also, these controlling families typically use pyramids, shares with differing number of votes, so called dual-class shares, and the Corporate Executive Officer-, or CEO, -position to enhance their power over the firms. Sweden is a good example of a country characterized by such owners (La Porta et al., 1999). So, what are the implications of family control? In order to answer such a question a natural starting point is to compare firm performance in companies with families in charge, with the firm performance in companies characterized by a dispersed ownership structure.

A common view in the literature, concerning family control versus a dispersed ownership structure, with a professional CEO in control, is that the latter is the more efficient way of running a company. The U.S. is believed to be a prime example of the benefits of dispersed ownership. In the U.S. most public companies have many small shareholders and a professional manager in control of the company, and the American companies have created more growth than the European ones during the last decades. Family ownership is considered to cause more inefficiencies, for example because control is inherited by heirs who have poor management skills (Morck et al., 2000, Pérez-González, 2002, Hillier and McColgan, 2005). However, Anderson and Reeb (2003) document a positive effect of family control on firm performance, and Anderson et al. (2003) find a positive effect of founding family ownership on the costs of debt. Furthermore, Fahlenbrach (2004), and Villalonga Amit (2004) find a positive impact on firm performance of founder-CEOs, and a negative impact of successor-

CEOs. So, the effects of family control are still very much an open question. This paper tries to shed more light on this issue.

The empirical research in this area has so far, to a large extent, concentrated on the Anglo-Saxon countries, where the institutional and political environment is different from that in many European countries. It is therefore of interest to take a closer look at Swedish companies.

According to La Porta et al. (1999) the ownership structure in a country depends to a high degree on the laws of the country. Countries with an extensive legal protection of minority shareholders' interests tend to be dominated by companies with a dispersed ownership structures, controlled by professional managers. The U.S. is an example of such a country. The opposite is true for countries with poor protection of minority shareholders, such as Sweden. Furthermore, countries with poor shareholder protection are believed to have larger costs associated with their ownership structures, since the controlling owners are more inclined to expropriate the minority shareholders. La Porta et al. (1999) furthermore argue that the lawmakers should strive for better protection of small shareholders and the removal of laws protecting large owners. However, the recent discoveries of illegal activities in American corporations¹ point to the fact that the expropriation by professional managers, hired by dispersed shareholders, is not insignificant. Also, Shleifer and Vishny (1997) conclude that strong shareholder protection combined with large owners is a necessity for a well functioning market. They draw the conclusion that the American system is far from efficient since large ownership stakes are not encouraged.

The explanation for the larger costs associated with concentrated ownership could be that it is common practice in many countries for the controlling families to also use pyramids, or dual-class shares. The shares that have more votes attached to them are called

¹ For example Enron, and WorldCom.

super-voting shares.² These instruments enable the families to control large firms with relatively small capital investments. This practice leads to separation of ownership and control, which in turn implies increased costs from expropriation of minority shareholders (Morck et al., 2004). Since the families in many cases also control the CEO-position they are also highly entrenched, thus hard to remove from their positions. Also this might enhance the costs associated with concentrated ownership.

In a country like Sweden where the minority shareholder protection is weaker than in the Anglo-Saxon countries and where the use of dual-class shares is common practice, and family control of the CEO-position is not uncommon, the costs associated with family ownership ought to be large (La Porta et al., 1999). Cronqvist and Nilsson (2003) also document that Swedish firms controlled by families using dual-class shares are valued at substantial discounts.

However, studies have shown that estimates of the private benefits of control³ are lower in Sweden than in the Anglo-Saxon countries (see for example Nenova, 2003 or Dyck and Zingales, 2002). One explanation for this phenomenon is that the degree of expropriation is affected not only by the ownership structure and laws, but also by ethics, basic values, media, tax compliance etc. (Dyck and Zingales, 2002). So what can explain the discount on Swedish family firms if it is not expropriation of minority shareholders?

A starting point for this empirical study is the theoretical model of succession in family firms, developed by Burkart et al. (2003). This study is also closely related to Cronqvist and Nilsson's (2003) empirical study on Swedish controlling minority shareholders. However, I attempt to take their analysis one step further. Using a different sample compared to Cronqvist and Nilsson (2003), a somewhat different methodology where I, among other things, control for the effect of the family controlling the CEO-position, and a

² In Sweden they are also known as A-shares.

³ An explanation of this concept is found on page 5.

more exact definition of costs associated with ownership structures, I hope to deepen the understanding of, and provide further evidence on, the implications of family control in Sweden.

Inspired by Roe (2002), I try to distinguish between costs of private benefits of control and agency costs. Roe (2002) divides the cost associated with controlling owners and managers into two parts. The first one is costs that are connected to the expropriation by the ones in control, of minority shareholders, for example by awarding themselves high salaries, taking expensive vacation-trips, claiming that they are actually on conferences etc. These costs are called private benefits of control. In some cases these costs can be characterized as outright theft. This type of costs is affected by the legal protection of shareholders. The second type of costs is the one that stems from the controlling party's inability to run the firm in an efficient way. Roe calls these costs agency costs. Here the law plays no role.

This paper addresses the following questions: First, which type of ownership structure is associated with higher total costs⁴, from a stockholder's point of view, in Sweden? Second, are there larger costs associated with founder family, i.e. founders or their heirs, control compared to non-founder family control? Third, what marginal effect does a controlling owner who is also CEO have? Finally, what role do super-voting shares play?

Based on previous empirical results on the impact of family control, mainly Cronqvist and Nilsson (2003), Dyck and Zingales (2002), and Morck et al. (2000), I propose that there are generally less costs stemming from private benefits of control in family firms. Since the family holds a substantial block in the firm it internalizes part of the costs associated with expropriation. Instead there are higher costs associated with bad investment decisions, i.e. agency costs, since many family firms are controlled by the founders' heirs, who are believed to be inferior when it comes to running a company (Burkart et al., 2003). These heirs

⁴ Extraction of private benefits and agency costs.

have not inherited the skills to run the business (Morck et al. 2000). In short, family firms are mainly plagued by agency costs, while firms with a dispersed ownership structure are mainly plagued by costs of private benefits of control. Assuming that the costs associated with the different ownership structures are, more or less, of the same magnitudes, family firms and firms with dispersed ownership ought to perform similarly. Furthermore, among family firms, founder family firms are expected to perform worst, since the agency costs in family firms stem from founder family firms where heirs are in control.

In addition, when a family member also holds the CEO-position, it increases the controlling owner's control over firm decision and thus the entrenchment. This increases the agency costs. In particular, the increased agency costs are caused by family heirs, who are assumed to be inferior business leaders, compared to professional CEOs. In addition, the prevalent use of dual-class shares in family firms in Sweden, which leads to a separation of ownership and control, increases the extraction of private benefits. All in all, since many families control the CEO-position, and use super-voting shares, we should observe worse performance in family firms.

The following five hypotheses are formed from the reasoning above, and tested: First, family firms perform worse than firms with dispersed ownership. This is caused by family members being CEOs, and the use of super-voting shares. Second, firms controlled by founder families perform worst, because of heirs in control. Third, firm performance is negatively affected when the families control the CEO-position. The CEO-position enhances the agency costs, because of the owner becoming too powerful and entrenched. Fourth, firm performance is negatively affected when families use super-voting shares. Super-voting shares increase the incentives to extract private benefits of control. Finally, controlling for family CEOs and the use of super-voting shares, family firms and firms with dispersed

ownership perform similarly. Family firms suffer from agency costs while firms with a dispersed ownership structure suffer from costs of private benefits of control.

Sweden is well suited for conducting this type of study since a high proportion of the public companies are controlled by families, and there are quite a few public companies with dispersed ownership. There is also extensive data available for research purposes.

An unbalanced panel of 144 large, non-financial, companies listed on the Stockholm Stock Exchange, over the period 1985-2000, is analysed. Compared to Cronqvist and Nilsson's (2003) sample, my sample includes fewer firms, but these are instead observed over a longer time period. The total number of firm-years is therefore similar. An approximation of Tobin's Q is used as dependent variable in fixed firm-effect estimations. As in the vast majority of the literature on the relation between firm performance and ownership structure, firm performance is approximated by Tobin's Q.⁵ The results show that 1) family firms perform worse than firms with dispersed ownership, 2) founder family firms are associated with worse firm performance than non-founder family firms, 3) when the controlling family also holds the CEO-position, firm performance is negatively affected, especially if it is a founder family, 4) the use of dual-class shares increases the cost associated with CEOs that are also controlling owners, and 5) controlling for family CEOs and the use of super-voting shares, family firms still perform worse than firms with dispersed ownership.

I conclude that large family owners are entrenched which creates agency costs, mainly caused by founder heirs lacking management skills. These costs are sufficiently high to cause family control, per se, to have a slightly negative effect on firm performance. Furthermore, the CEO-position entrenches the owner further, which amplifies the agency costs. This effect stems mainly from those cases when the controlling owner comes from a founder family, where the agency costs are already high, since an heir might lack the right

⁵ See e.g. Anderson and Reeb (2003), Cronqvist and Nilsson (2003), Demsetz and Lehn (1985), Himmelberger et al. (1999), Holderness and Sheehan (1988), McConnell and Servaes (1990), and Morck et al. (1988).

skills for running the firm. Also, the use of dual-class shares in combination with a CEO-position, leads to separation of ownership and control and creates costs of private benefits of control. The owner is powerful enough to extract more private benefits as his incentives to do so are stronger. It is quite common that the controlling owner is CEO, and the use of super-voting shares is widespread. Thus, the overall negative impact of family control is in large part caused by families controlling the CEO-position and using super-voting shares. Founder family controlled firms perform worst, due to the fact that ownership, to a high degree, is inherited in these firms, and because of the prevalence of family CEOs using super-voting shares.

Section 2 describes the theoretical background. In section 3, some earlier empirical results on the implications of family control are presented. Section 4 deals with the Swedish institutional environment and what it implies for the firms, along with a presentation of earlier empirical results on the topic. The next section, section 5, presents the main hypotheses which are to be tested. In section 6 the data and definitions of ownership structures are presented. Thereafter, in section 7, the econometric method and models are discussed. In section 8 the empirical results are presented. Finally, in section 9, there is a concluding discussion. Tables and figures are displayed in the back.

2. Theoretical Background

The purpose of this section is to outline the theoretical background for this paper. This section begins with a presentation of Burkart et al.'s (2003) model of succession in family firms. The second part presents the concepts of costs of private benefits of control and agency costs.

2.1. A Model of Succession in Family Firms

This study is inspired by the theoretical model presented in Burkart et al. (2003). In their model a company is initially owned and controlled by the founder. This person then chooses between hiring a manager, or giving the control of the company to his or her heirs. At the same time it is decided how many of the shares in the company that should be divested. In principal the founder has three options. The first one is that, he, or she, can sell of the entire company. The company is then owned by small shareholders and run by a professional manager. The second alternative is to sell part of the company and hire a manager. The family remains as a large shareholder, monitoring the manager. The third alternative is to keep the company in the family. In this case no shares are divested. In each case the ownership structure that maximizes the founder's welfare is chosen.

Burkart et al. assume that the professional manager is better at running the company than the heirs. Furthermore, the professional manager has incentives to expropriate the shareholders, but the possibility to do so depends on the laws. They can then show that laws regarding shareholder protection determine which type of ownership structure will dominate. Strong shareholder protection leads to a situation in which all shares are divested. Average shareholder protection generates companies where the founder appoints a manager but keeps part of the company shares in the family in order to monitor the manager. The

manager's ability to expropriate the shareholders is in this case great enough to make it non-profitable to sell all the shares. This could for example be the case for Sweden. In those cases when the shareholder protection is weak, the costs associated with managerial expropriation are so great that the founder chooses to keep the company in the family.

The results also differ depending on the assumptions that are made about the founder's welfare function. If the founder values keeping the company in the family, he or she, will never divest all the shares. Burkart et al. conclude that separation of ownership and control, between shareholders and managers, is a sign of a healthy financial environment.⁶ The lack of such separation is a sign of financial underdevelopment.

In this study the founder's choices are somewhat altered compared to Burkart et al.'s model. This paper focuses on those cases where at least some shares have been divested. If this has not happened there exists no agency conflict. The company is fully owned by the family. In this case, the company is also not traded on a stock exchange. So, the founder can choose to: 1) remain in the company, 2) give the control to his or her heirs, 3) sell the control to another family or 4) sell the shares to the public. When the founder relinquishes control to another family, this family becomes the new controlling owner. Furthermore, whenever a family is the controlling owner someone from the family can be chosen to act as CEO. When a family is the largest shareholder it is assumed that the company is controlled by this family,⁷ regardless of whether they control the CEO-position or not, and when there is no such shareholder the CEO is in control.

It is possible to differentiate between two types of agency conflicts. The first one is the one between controlling owners and minority shareholders. The second one is between the CEO and the shareholders.

⁶ Another separation of ownership and control is that between small and large shareholders through the use of dual-class shares, pyramids, cross-shareholdings etc. More on this later on.

⁷ More on this definition later on.

2.2. Costs of Private Benefits of Control and Agency Costs

When looking at the effects of different ownership structures on firm performance, the effects are most of the time measured in terms of costs. These are costs that are associated with the controlling party, whether this is a controlling owner or a professional manager. The controlling party is through its actions affecting the firm in a bad way. In this paper I will distinguish between two types of costs, costs of private benefits of control and agency costs. This distinction is taken from Roe (2002).

Costs of private benefits of control are costs associated with expropriation of minority shareholders. The controlling party could for example launch incentive programs benefiting themselves, use company funds to go on expensive vacation-trips, pursue their own political agenda using company resources etc. The idea is that somehow company funds are diverted in such a way that it benefits the controlling party at the expense of minority shareholders. Many of these costs are illegal, thus making the law a factor to consider. Hypothetically, in a country characterized by poor investor protection, these costs could become high.

Agency costs on the other hand are costs that occur because of the controlling party's inability to run the firm in an efficient way. An example of such a cost would be bad investment decisions. The controlling party has the best interest of the firm in mind when taking the decisions, but simply fails taking the right ones. There is nothing illegal with this type of costs. So the investor protection should not matter when assessing the magnitude of these costs.

What, then, are the main empirical findings on the subject of family control and firm performance?

3. Empirical Results on the Implications of Family Control

This section deals with the empirical findings regarding the benefits and costs of family control compared to CEO-control in firms with dispersed ownership. The empirical findings are mixed, some papers show that family control is beneficial for firm performance, others that it is not. Also, the impact of a family also controlling the CEO-position is discussed.

3.1. Benefits of Family Control

Anderson and Reeb (2003) examine S&P 500 firms, from 1992-1999. Using both Return on Assets, or simply ROA, as well as Tobin's Q, as measures of firm performance the results indicate that family firms perform at least as well as non-family firms. Further analysis reveals that performance is better if family members act as CEOs compared to outside CEO:s. The interpretation is that families have valuable knowledge about the business and that active family members view themselves as stewards of the enterprises.

Anderson and Reeb, furthermore, find a non-linear relation between firm performance and family ownership. Performance is first increasing and then decreasing in ownership. Thus, the problem with entrenched owners that are difficult to get rid of, and poor performance is greatest at high ownership stakes.

Anderson and Reeb conclude that in well-regulated markets family ownership reduces agency problems and does not lead to any severe losses in decision-making efficiency.

In another study, Anderson et al. (2003) investigate the effect of founding family ownership on the agency costs of debt. Using a sample of 252 U.S. firms they find that founding family ownership is associated with lower costs of debt financing. Bond holders

seem to view founding family ownership as an ownership structure that protects their interests. But if the founding family also controls the CEO-position the cost of debt increases. This is primarily attributable to founder descendants. Thus, founder descendants seem to have a negative impact on firm performance

3.2. Costs of Family Control

Morck et al. (2000) find that countries where billionaire heirs' wealth is large relative to GDP have a slower growth, more political rent-seeking, and spend less on research and development compared to other similar countries. They argue that this is caused by wealthy, entrenched families with other objectives than maximization of shareholder value. Poor management is entrenched. Furthermore, wealthy families achieve strong lobbying power, through pyramids.

Morck et al. use data on Canadian firms to investigate this further. As expected, heir-controlled, Canadian firms exhibit low financial performance and R&D spending relative to firms of the same ages and sizes.

Using data on management successions in the U.S., Pérez-González (2002), studies the impact of inherited control on firm performance, using an event study methodology. He studies successions where the departing CEO is a member of the controlling family. The findings reveal that firms where control is inherited experience declines in ROA, and market-to-book ratios⁸. Such effects are not found in firms that promote CEOs unrelated to the controlling family.

Further analysis reveals that the declines are particularly large when the heirs have not attended a good college. Pérez-González concludes that this is evidence of wasteful

⁸ An approximation of Tobin's Q.

nepotism, hampering firm performance. The costs associated with this practice are borne by minority shareholders who do not share the private benefits of control.

Hillier and McColgan (2005) study a sample of firms listed on the London Stock Exchange over the period 1992-1998. They find that family CEOs are entrenched. Furthermore stock prices react favourably on news of a family CEO leaving his, or her, position, and being replaced by a non-family CEO. Hillier and McColgan also find increases in operating performance, sales, and employment when a family CEO departs. This is interpreted as evidence of the family CEO being unable to take advantage of present business opportunities.

3.3. Other Results on the Impact of Family Control

Some studies find that the effect of family control very much depends on whether we consider founders or founders' heirs. Two such studies look into the effects of families controlling the CEO-position. Fahlenbrach (2004) examines a sample of large, publicly listed U.S. firms, observed from 1992-2002. He finds a systematic difference between founder-CEO firms and successor-CEO firms. The former exhibit higher firm performance. It is argued that this difference is probably due to founders making better managerial decisions. Furthermore, Fahlenbrach finds that investing in founder-CEO firms from 1993-2002 would have yielded an abnormal return of 10.7 percent annually in excess of a benchmark four factor model.

Villalonga and Amit (2004), using U.S. data on all Fortune 500 firms during 1994-2000, find that family ownership only creates value when a founder is controlling the CEO-position, or acting as Chairman. Descendants, however, destroy value when they act as CEOs. The detrimental effect of descendant-CEOs stem from second generation heirs.

As the reasoning above reveals the control of the CEO-position is an important factor to consider, when it comes to family control.

3.4. Controlling Owner and CEO

A large part of the literature in this area focuses on the impact of managers on firm performance. For example Adams et al. (2003) study the impact of CEOs that are founders, Fahlenbrach (2004) study the impact of founder-CEOs and successor-CEOs, as does Villalonga and Amit (2004), while Pérez-González (2002) looks at how firm performance is affected by the appointment of heirs as CEOs. The list goes on. Furthermore, as already mentioned, Anderson and Reeb (2003) find that the control of the CEO-position affects firm performance. Thus, whether the family controls the CEO-position, or not, is an important factor to consider. The company manager is the one who makes the operative decisions and runs the firm from day to day. If the controlling owner also manages the firm, this individual has almost absolute control over the firm, and is insulated from corporate take-over measures. In other words, the CEO-position increases the entrenchment of the controlling owner. This ought to have an effect on firm performance in one way or another.

As will be shown later, many family firms in Sweden, have a family member occupying the CEO-position. Understanding the true effects of family control then requires an understanding of the marginal effects of the control of the CEO-position.

How then is the effect of controlling families affected by the Swedish institutional environment?

4. The Swedish Institutional Environment

This section begins with a discussion of the implications of the Swedish corporate law for firms in general, and family firms in particular. After this, some empirical results on Swedish data are presented.

4.1. Institutional Setting and Super-Voting Shares

In order to fully understand the implications of ownership structures, one has to consider the legal systems. La Porta et al. (1997) argue that the legal system is an important determinant of the ownership structure in a country. Countries can be divided into two main groups based on the origin of their legal system, Common Law countries, such as the U.S., and Civil Law countries, such as France, and to some extent Sweden. Common Law countries are characterized by stronger shareholder protection, and dispersed ownership of firms, while Civil Law countries display weaker shareholder protection, and concentrated ownership. Furthermore, the legal protection of minority shareholders is also a determinant of the degree of expropriation of minority shareholders, by the ones in control, that takes place. Many Civil Law countries are dominated by families controlling firms through the use of pyramids and super-voting shares (La Porta et al., 1999). This practice distorts the owners' incentives, and combined with weak laws, creates costs of private benefits of control. Firms, and financial markets, in Civil Law countries are also considered to be less efficient than the ones in Common Law countries (La Porta et al. 1997).

First it is important to understand that the law only protects shareholders from being financially exploited by managers or large shareholders (private jets, lavish apartments etc.). The law does not protect shareholders from poor management of the company.

Furthermore, the protection also includes the supply of information to minority shareholders. Another important factor is how well the legal system works, are trials swift and efficient etc. (Roe, 2002).

La Porta et al. (1999) have constructed an index which aggregates shareholder rights. This index places Sweden in the group of countries with weaker investor protection.

Due to the fact that dual-class shares are allowed, and even encouraged (see below), in Sweden, the negative effects of large owners are magnified. Large shareholders can with the help of super-voting shares seize control of companies without having to invest as much money as would have been needed if dual-class shares did not exist. Since large shareholders, in this case, only internalize a small part of the companies' expenses, the incentive to expropriate minority shareholders is strong.

Swedish authorities argue that the use of dual-class shares promotes large owners with long planning horizons, acting in the best interest of other shareholders. The long term planning and interest in the company's well-being diminishes the large owner's incentive to expropriate minority shareholders. The idea is also that the use of dual-class shares protects entrepreneurs. With the help of super-voting shares the entrepreneur is better protected from hostile takeovers (Holmén and Högfeldt, 2004). Furthermore, an owner with at least 10 percent of the votes can always block a takeover bid. This is due to a Compulsory Acquisition Limit of 90 percent (Holmén and Knopf, 2004).

There are several other ways to minimize the amount of capital needed to control a company, the most important one being pyramids. Cross-shareholdings and preemption clauses are examples of other methods to control a company (Holmén and Knopf, 2004). However, the focus, in this study, will be on super-voting shares since these are widely used and very efficient when it comes to separating ownership from control. All in all the use

of super-voting shares combined with mediocre shareholder protection, creates the incentives and possibilities to expropriate minority shareholders.

4.2. The Swedish Ownership Structure and Firm Performance: Empirical Results

In Sweden the ownership concentration is high, with families also often controlling the CEO-position, the protection of minority shareholders is mediocre, and the use of dual-class shares is common. With this in mind the Swedish market should also be inefficient due to large owners acting in their own self-interest. But Nenova (2003) shows, a bit surprisingly, that the mean size of private benefits in relation to the company market value is only 1 percent, which can be compared to a mean of 4.5 percent for countries with dispersed ownership.

Dyck and Zingales (2001) look at the premiums in block transactions. Their study shows that this premium is lower in Sweden compared to other countries. This can be interpreted as evidence that the benefits of being a large owner come mainly in the form of reputation, good information etc., so called non-pecuniary benefits.

Cronqvist and Nilsson (2003) analyze a sample of firms from Sweden. They show that families often use corporate control instruments such as dual-class shares and pyramids. By looking at firm performance, captured by ROA and Tobin's Q, they find worse firm performance in family firms compared to other firms. They conclude that the controlling families have entrenched themselves, suggesting large private benefits of control. The families have close to complete control over their firms. Furthermore, the extensive use of dual-class shares leads to costs.

Cronqvist and Nilsson argue that families make suboptimal investment decisions. Another source of the discount is the entrenchment of the owners, the likelihood of takeovers is small. By allowing the use of corporate control instruments such as dual-class

shares, the Swedish corporate law creates opportunities for families to extract private benefits of control.

Furthermore, Holmén and Högfeldt (2005) look at Swedish closed-end investment funds, which are often controlled by families, and find that they are associated with large discounts.

So the empirical evidence on the performance of Swedish family firms is not clear. The inefficiencies are not of the kind one would expect from the arguments in La Porta et al. (1999). There are signs of large costs connected to family ownership, but not necessarily caused by expropriation of minority shareholders. Rather, as Cronqvist and Nilsson touch upon, they seem to be caused by the inability of families to run the firms efficiently. In particular, looking at the studies by Morck et al. (2000) and Pérez-González (2002), heirs lacking the skills to run the firms could be what is causing the problems.

5. Hypotheses

Taking the results of earlier empirical work, in particular Cronqvist and Nilsson (2003), Dyck and Zingales (2001), and Morck et al. (2000), into consideration I propose the following, which will lead us to the main hypotheses of this paper: The fundamental idea is that there are generally less costs stemming from private benefits of control in family firms. Since the family holds a substantial block in the firm it internalizes part of the costs associated with expropriation. Instead there are higher costs associated with bad investment decisions, i.e. agency costs, since family heirs are believed to be inferior when it comes to running a company (Burkart et al., 2003). These heirs have not inherited the skills to run the business (Morck et al. 2000). In fact, I argue that family firms are mainly associated with agency costs,

while firms with dispersed ownership are mainly associated with costs of private benefits of control. Assuming that the costs of the different ownership structures are, more or less, of the same magnitude, family firms and firms with dispersed ownership ought to perform similarly. Furthermore, among family firms, founder family firms are expected to perform worst, since the agency costs in family firms stem from founder family firms where heirs are in control.

When a family member also holds the CEO-position, it increases the controlling owner's control over firm decision and thus the entrenchment. In this case the result is higher agency costs, caused by family heirs controlling the CEO-position. In addition, the prevalent use of dual-class shares in family firms in Sweden, which leads to a separation of ownership and control, increases the extraction of private benefits. Thus, since many families control the CEO-position, and use super-voting shares, we should observe worse performance in family firms.

The above can be summarized in the following five hypotheses, which will be tested:

H1: Family firms perform worse than firms with dispersed ownership. This is caused by the families controlling the CEO-position, and using super-voting shares.

H2: Firms controlled by founder families perform worst. Heirs in control are the main cause of the agency costs in family firms.

H3: Firm performance is negatively affected when families control the CEO-position. The families, in particular heirs, become too powerful, and also entrenched, when they control the CEO-position. This increases the agency costs.

H4: Firm performance is negatively affected when families use super-voting shares. Super-voting shares increase the incentives to expropriate minority shareholders, and thus increase the costs of private benefits of control.

H5: Controlling for family CEOs and the use of super voting shares, family firms and firms with dispersed ownership perform similarly. Family firms are mainly plagued with agency costs while firms with dispersed ownership suffer from costs of private benefits of control.

6. Data and Definitions of Ownership Structures

This section presents descriptive statistics on the data and also presents definitions of the different types of ownership structures that are analyzed.

6.1. Data

The accounting data that is used has been collected from the Findata TRUST. Ownership data comes from Sundqvist and Sundin's overview of the ownership structure in Swedish public companies (1986-2001). The sample consists of an unbalanced panel of 1,155 observations, spanning from 1985 to 2000. The total number of included companies is 144. Thus there are on average approximately eight observations per company. It can be noted that the sample used by Cronqvist and Nilsson (2003) contained 309 listed Swedish firms observed over 1991-1997. All in all, 1,317 firm-year observations.

The dependent variable in the estimations is an approximation of Tobin's Q. Tobin's Q is commonly used as a measure of firm performance. Tobin's Q is in this case

defined as the ratio between the market value of equity plus the book value of total debt, over the book value of total assets. This approximation is often used, mainly because of its computational simplicity (see for example Adams et al., 2003, Cronqvist and Nilsson, 2003, Himmelberg et al., 1999). Furthermore Chung and Pruitt (1994) show that this approximation is very close to more theoretically correct, and complicated, models.⁹ Tobin's Q is an approximation of how much human capital and growth opportunities contribute to the company's market value. The idea is that Tobin's Q will capture possible costs of private benefits of control, as well as agency costs. A large owner that expropriates the company, all else being equal, for example, should be reflected in a lower market value. A lower market value translates into a lower Tobin's Q. In the regressions I use the log of Tobin's Q, since this transformation has better statistical properties.¹⁰

The regressions also include numerous control variables in the form of company characteristics, which are all correlated with Tobin's Q. *Table 1* defines the variables and presents descriptive statistics. Return on assets, or ROA, is defined as earnings before interest, taxes and depreciation, over book value of total assets. This variable is a measure of how profitable the firm is. Age is simply the age, in years, of the firm. Size is defined as the book value of total assets, and is meant to capture how big the firm is. Leverage is the book value of total debt as a fraction of the book value of total assets. This variable captures the financial risk of the firm. Sales-fraction is defined as total sales over book value of total assets, and measures, in some sense, how well the firm is doing. The value of property, plant, and equipment, as a fraction of total assets, is called PPE-fraction. This variable reveals how much the firm has invested in production capital. CAPEX-, or capital expenditures-, fraction is investments over book value of total assets. This variable shows the extent to which the firm targets future growth. In the regressions the log of firm age and size is used. I also include the

⁹ However, Perfect and Wiles (1994) show that more advanced approximations produce more robust estimation results.

¹⁰ The log of Tobin's Q is approximately normally distributed.

squared term of log size, to control for non-linear effects, following Cronqvist and Nilsson (2003). Furthermore year effects are controlled for by including year dummies in the regressions. All in all, I use all the control variables that Cronqvist and Nilsson (2003) use, and I also include firm age.

The average firm-year observation in the sample has a Tobin's Q of around 1.5, so there are considerable values incorporated in the market value that do not show up in the books. Furthermore the average firm-year observation in the sample is approximately 60 years old and has a book value of around 8,764 million SEK. Thus most of the observations come from older, large firms.

6.2. Definitions of Ownership Structures

Shareholders' ownership of votes is the variable used to define the different ownership structures. If the largest shareholder holds 25 percent or more of the votes he, or she, is assumed to be in control of the company. Twenty five percent of the votes should be sufficient to control the decisions taken by the firm (Cronqvist and Nilsson, 2003). If there is no owner with 25 percent, or more, of the votes, the company is assumed to have dispersed ownership with a professional manager.

Controlling owners that are foundations have been classified as families or not, depending on who ultimately controls the foundation. For example, the Wallenberg family uses their own foundations to control some firms. These firms have therefore been classified as family firms. Observations where the controlling owner is a financial institution, a company or similar, are not included in the final sample. This is done in order to maintain focus on clear-cut family firms and firms with dispersed ownership.

Initially companies are divided into the following two groups:

Family controlled firms. A family or individual controls the company (≥ 25 percent of the votes and being the largest shareholder).

Firms with dispersed ownership. There are no large shareholders. The firm is assumed to be controlled by a professional manager with negligible vote ownership.

In order to get a better picture of the effects of ownership structure, the family controlled firms are also divided into two groups:

Firms controlled by founder families. The controlling owner can either be an individual or a group of individuals that need not belong to the same family. The common feature for these owners is that they are either the founders of the firms, or relatives to the founders.

Firms controlled by non-founder families. This group contains firms with controlling owners who are either individuals or groups of individuals not connected to the founders.¹¹

The companies are thus ultimately divided into three categories depending on the distribution of votes within the firm: firms controlled by the founder family, firms controlled by a non-founder family or firms with dispersed ownership. Furthermore, it is taken into account whether the CEO belongs to the owner family or not.

Two different models will be used to examine the effects of family control. In the first model, the dummy approach, I use dummy variables to indicate the above ownership structures. In order to control for the effect of the controlling owner using super-voting shares, I also create a dummy, which takes the value of one when the controlling owner's vote

¹¹ Information about the identity of the controlling owner/owners is found in Sundqvist and Sundin's overview of the ownership structure in Swedish public companies (1986- 2001), and from annual reports.

ownership exceeds his, or her, equity ownership, i.e. when there is excess vote ownership. Excess vote ownership, which will be used in the second model, is thus defined as the controlling owner's percentage of total votes minus the percentage of total capital. This variable is set to zero for companies with dispersed ownership, since there is no controlling owner. So, it is a combination of an indicator variable and a continuous variable.

The controlling owner's ownership of votes and excess vote ownership are used as regressors in the second model.¹² This model allows for the effects of family control to vary with ownership. The vote ownership is a measure of the controlling owner's power. It is defined as the percentage of total votes in the firm. A high vote ownership could imply entrenchment, and agency costs. Also this variable takes on the value of zero for companies with dispersed ownership. Excess vote ownership is intended to capture the effects of separation of ownership and control, which could lead to costs of private benefits of control. Also in this model I control for the effects of the controlling owner being a CEO.

Table 2 presents descriptive statistics on the ownership structures in the companies. From *table 2* it is evident that most firm-year observations in the sample are family firms. Approximately 33 percent of the firm-year observations are founder family firms, and around 46 percent are non-founder firms. Furthermore the table shows that founder families on average own over 72 percent of the votes, whereas non-founder families own on average around 55 percent of the votes. Founder families seem to have a tight grip on their firms. The mean percentages of votes increase when the family is also controlling the CEO-position. Looking at the table it is evident that dual-class shares are common, especially in family firms. Dual-class shares are more frequently used in founder family firms than in non-founder family firms, although when someone from the family is CEO the difference is negligible. All of the founder family firms that have a manager from the family use dual-class

¹² Cronqvist and Nilsson (2003) use the same type of variables.

shares. All in all, when a family is acting as CEO it has a majority of the votes in the firm, and this, partly by using super-voting shares.

Table 3 displays the prevalence of controlling owners that are also CEOs in the different family groups. From the table it is evident that it is most common with a controlling owner that is also CEO in companies where the controlling owner is connected to the founder. All in all, it is quite common with a controlling owner that is also managing the firm. Thus, many firms in the sample have an ownership structure where the largest shareholder has almost total control over the company.

The above shows that founder family firms are run by owners that have plenty of control over their firms. The widespread use of dual-class shares, combined with CEO-positions imply separation of ownership and control, combined with almost total control. These firms should, according to my arguments, display significant costs of private benefits of control and agency costs.

Table 4 compares mean and median values for Tobin's Q and the firm characteristics, among the different ownership categories, using t-tests and Wilcoxon ranksum tests. Judging from *table 4, panel A*, it seems as though family firms have lower Tobin's Q, are smaller, and more leveraged. Among the family firms, in *panel B*, there seem to be no difference in Tobin's Q, however ROA is higher for founder family firms. Furthermore non-founder firms are bigger, more leveraged, have lower relative sales, but higher relative value of PPE. *Panel C* shows that firms run by a family CEO, show signs of having lower Tobin's Q, are smaller, less leveraged, have relatively higher sales, but lower relative value of PPE. The last panel, *panel D*, reveals that there are no clear differences between family firms that are controlled through the use of super-voting shares, and those that are not. All in all, apart from the last categories, the firms in the different ownership categories display differing characteristics.

Figures 1.1 to 4.2 show how mean and median Tobin's Q evolves over time for the different ownership categories. *Figure 1.1 and 1.2* show that, in general, there has been a positive trend in mean and median Tobin's Q for the firms since the beginning of the 90s, with a peak around 99. This is consistent with the stock market bubble around 2000. Both family firms and firms with dispersed ownership are characterized by this pattern, however it is more pronounced for the latter. As can be seen from *figure 2.1 and 2.2*, founder family firms and non-founder family firms exhibit similar patterns, although mean Tobin's Q is higher during the late 90s for founder family firms. Furthermore, in *figure 3.1*, there is a tendency for family firms without a family CEO to have higher Tobin's Q, at least from the early 90s and onward. Looking at *figure 4.1*, super-voting shares seem to be associated with a higher firm performance.

Finally, *Table 5* displays mean and median Tobin's Q for the different industries included in the sample. As expected, there seems to be quite some variation in Tobin's Q.

7. Econometric Method and Models

This section begins with a discussion of endogeneity problems and continues with a description of the actual model specifications that are used in the empirical analysis.

7.1. Endogeneity and the Remedies

When studying the relationship between ownership structures and firm performance the prevalence of endogeneity is an important issue. The problem can for example arise if there is an unobservable variable affecting both firm performance and the ownership variables, or if

there is reverse causality, i.e. firm performance affects ownership. The former problem results in a spurious correlation, while the latter causes an erroneous interpretation of the direction of the causality. Actually, an OLS-regression can never say anything about causality. More advanced estimation procedures are needed in order to answer such a question. The endogeneity also creates biased estimates of the relation between firm performance and ownership concentration, when estimated by OLS.

A common approach to handle endogeneity problems is the instrumental variable-, or IV-, approach, also known as Two-Stage-Least Squares. The idea is to find exogenous instruments that are correlated with the endogenous regressor, but uncorrelated, at least directly, with the regressand. These instruments are used to estimate the endogenous regressor. This procedure purges the regressor from any endogeneity, and it can thereafter be used again. This approach is normally used when dealing with cross-sectional data. The approach handles both problems with unobserved variables creating spurious correlations, and also reverse causality. The main drawback with this approach is finding good instruments. This is many times not possible. One could for example argue that firm age should suffice as an instrument. The argument being that younger firms are often controlled by the founder, but the older a firm gets, the higher is the probability that the firm is dispersedly held. In theory there should be no direct correlation between firm age and firm performance. The problem is that in practice there is. To further complicate matters, in the case of several endogenous regressors, one has to find several instruments. Because of the lack of valid instrument I will have to resort to another approach. Besides, Bøhren and Ødegaard (2004) show that the results of performance regressions are very much dependent on the choice of instruments. Since the field of corporate governance lacks theory about what constitute valid instruments, IV-procedures might not be superior when modelling the relationship between ownership and performance.

The second approach, which will be used in this analysis, is used when dealing with panel data. This is called the fixed effects estimator. In principle, one includes a separate dummy for each cross-sectional observation. In other words each cross-sectional observation is allowed to have a different intercept. The fixed effects estimation only handles problems with spurious correlations, due to unobserved variables. The problem with possible reverse causality is not handled.

Several articles explore the area of reverse causality, but the conclusions are mixed. Demsetz and Villalonga, 2001, find evidence, using U.S. data and an IV-approach, that ownership concentration is an endogenous variable and that this variable does not affect firm value.

Adams et al. (2003), also using U.S. data and an IV-approach, show that a CEO, who is also a founder, is an endogenous variable. They also find a positive causal effect of founder-CEO on firm performance.

Thomsen et al. (2003) show that ownership concentration has a negative effect on firm value, in European data. This is done by performing a Granger-test. In other words, they find no reverse causality.

Other studies use the fixed effect estimator, for example Anderson and Reeb (2003) and Cronqvist and Nilsson (2003). The following arguments can be made as why fixed effects should be sufficient to handle the endogeneity problems in this study.

In the U.S. it is often the case that professional managers have received their shares in the company as a form of compensation for their effort. Such practices turn ownership concentration into an endogenous variable because of reverse causality. The controlling owners in this study have in most cases not received their stocks in such a way, since these types of compensation programs are more common in the U.S. Thus the problems

with reverse causality will be less severe compared to U.S. studies (Cronqvist and Nilsson, 2003).

However, endogeneity problems can still arise in the form of omitted variables. A positive shock to investment opportunities can for example lead to a higher Tobin's Q. At the same time a stock issue might become necessary in order to finance the new investments. The issue might reduce the controlling owner's share in the firm, if he or she does not participate in the issue. The result of all this is a spurious negative correlation between family vote ownership and company value. In Sweden large issues of shares are most of the time combined with pre-emption clauses, which means that the large owner's share of the firm is, in most cases, not reduced (Cronqvist and Nilsson, 2003).

Another example of endogeneity problems is when there is a negative shock to the cash flow which causes market value to go down. Because of the shock, the controlling owner might be forced to invest more in the firm, thus increasing his vote ownership. The spurious correlation between vote ownership and Tobin's Q will be negative also in this case (Cronqvist and Nilsson, 2003).

In order to handle the problem with omitted variables fixed-firm effects are used along with a set of control variables. The control variables are firm characteristics that are meant to capture observable firm heterogeneity. Fixed firm-effects are meant to take care of unobserved firm heterogeneities, which are assumed to be constant over time and unique for each firm (Himmelberg et al., 1999). An example of such a heterogeneity is the amount of goodwill a company has. Companies with a lot of goodwill tend to have high Tobin's Q-values. Many of these companies are also relatively new (for example IT-companies) with large founder-shareholdings. If we do not control for these goodwill-effects a spurious positive correlation between ownership and firm value will arise (Cronqvist and Nilsson, 2003).

7.2. Models

As opposed to Cronqvist and Nilsson (2003) the effect of controlling owners will be examined partly by using dummy variables. This study also incorporates the effects of a controlling owner who is also acting as CEO. The model specifications that are used are presented below.

7.2.1. The Relation between Firm Performance and Family Ownership. The Dummy Approach

The first model uses dummies indicating type of controlling owner, control of the CEO-position, and use of super-voting shares. Thus deviations from dispersed ownership are estimated. The dependent variable is the log of Tobin's Q.

$$\ln Q_{it} = \beta_{0S} + O'_{sit} \beta_{1S} + C'_{it} \beta_{2S} + Y'_t \beta_{3S} + u_{si} + v_{sit} \quad \begin{array}{l} i = 1, \dots, N \quad t = 1, \dots, T_i \\ \text{for } S = 1, \dots, 2.1. \end{array} \quad (1)$$

$\ln Q_{it}$ is the dependent variable, β_{0S} is the intercept, O'_{sit} is a $1 \times K$ ($K = 1, 2, 3,$ or 5 .) vector of owner variables,¹³ C'_{it} is a 1×8 vector of observable firm characteristics, Y'_t is a 1×15 vector of year dummies, u_{si} is the firm specific fixed effect and v_{sit} is the error term. This model will be estimated for the different arrangements of controlling owner categories, denoted by S .¹⁴ We will end up with four different estimations of *equation 1*. The

¹³ Dummies, which, depending on specification, indicates type of controlling owner, whether the owner controls the CEO-position, or not, and if the controlling owner uses super-voting shares.

¹⁴ Specifications according to controlling owner categories, and the use of super-voting shares:

S=1: Family.

S=2: Founder family and non-founder family.

S=1.1: Family, family with CEO, and controlling owner using super-voting shares.

first one, separating the relation between firm performance and family firms, from that between firm performance and firms with dispersed ownership. The second one, dividing family firms into founder or non-founder family firms. The third and fourth estimation, using the same division as the previous ones, but also taking into account the CEO-effects, and effects of the controlling owner also using super-voting shares.

7.2.2. The Relation between Firm Performance, Families' Vote- and Excess Vote Ownership

This model will incorporate the relation between families' vote ownership, excess vote ownership and Tobin's Q. This model handles any non-constant relationships between firm performance and family control. *Equation 2* shows this relationship.

$$\ln Q_{it} = \beta_{0S} + O'_{Sit} \beta_{1S} + C'_{it} \beta_{2S} + Y'_t \beta_{3S} + u_{Si} + v_{Sit} \quad \begin{array}{l} i = 1, \dots, N \quad t = 1, \dots, T_i \\ \text{for } S = 3, \dots, 4.1. \end{array} \quad (2)$$

O'_{Sit} , for *equation 2*, is a $1 \times L$ ($L = 2, 4, \text{ or } 8.$) vector of owner variables (vote ownership and excess vote ownership). The remaining variables are the same as in previous specifications. Also in this case, four regressions are performed, one for each constellation of controlling owner categories, S .¹⁵ The first one separating the relation between firm performance and family ownership, from that between firm performance and firms with dispersed ownership. The second one, dividing family firms into founder or non-founder

S=2.1: Founder family, founder family with CEO, non-founder family, non-founder family with CEO, and controlling owner using super-voting shares.

¹⁵ Specifications according to controlling owner categories:

S=3: Family.

S=4: Founder family and non-founder family.

S=3.1: Family, family with CEO.

S=4.1: Founder family, founder family with CEO, non-founder family, and non-founder family with CEO.

family firms. The third and fourth estimation, using the same division as the previous ones, and also taking into account the CEO-effects.

Since fixed firm-effects will be used in the empirical analysis it is important that there is within-variation in the ownership variables, i.e. the variables change over time for the different firms. *Table 6* shows that there indeed is variation in the different dummy variables, and thus implicitly in the vote- and excess vote ownership variables, categorizing the firms. Thus there are not only a few observations driving the results, although, from the table it can be seen that there are not many changes in the founder family firms. Compared to non-founder family firms, founder family firms exhibit much less changes in the ownership. This was expected, since families not connected to the founder are probably more inclined to move in and out of firms, not investing for the long-term. Founder family control is more stable. All in all, out of the 144 firms, 31 are solely founder family owned, 47 are non-founder family owned, and 16 are dispersedly held, over time. Only 9 family firms control the CEO-position throughout the observed years, but 70 of the controlling families use super-voting shares over time.

Looking at the changes in ownership, they seem to be caused in part by control blocks actually changing hands, but also because the largest shareholder's fraction of votes crosses the 25 percent-treshold.

To check for possible between-variation, OLS-estimations will also be performed for *specification 1* and *3*.

8. Empirical Results

The results for the estimations using dummies are presented first, thereafter are the results for the estimations using vote ownership and excess vote ownership presented. In the end I present the results for some OLS-estimations.

8.1. The Relation between Firm Performance and Family Ownership. The Dummy Approach

Table 7 displays the result of the estimations of *specification 1-2.1*. The results for *specification 1* indicate that there is a significant, negative relationship between a controlling owner and Tobin's Q. Tobin's Q is 9.6 percent lower for family firms. This is in line with hypothesis 1, which stated that family firms have worse firm performance than firms with a dispersed ownership structure.

The results for *specification 2*, when the families are divided into the two subgroups, show that if the founder family is the controlling owner, Tobin's Q is significantly lower. Tobin's Q is 18.2 percent lower when a founder family controls the firm, a surprisingly large number. The non-founder family has a significant but much weaker negative relation to Tobin's Q. According to hypothesis 2, we expected to observe this pattern, founder family firms displaying the worst firm performance.

The estimation results for *specification 1.1* show that the control over the CEO-position is negatively related to firm performance. Tobin's Q is 19.9 percent¹⁶ lower for family firms, where the family also controls the CEO-position. However, there seems to be no relationship between the controlling owner's use of super-voting shares and firm

¹⁶ See column three: $7.1+12.8=19.9$.

performance. Since there is a significant, however only on the 10 percent-level, and negative estimate for the family dummy, it is possible to reject hypothesis 5, which said that controlling for CEO-effects and the use of super-voting shares, family firms should perform similarly compared to firms with a dispersed ownership structure.

The results for the last specification of *equation 1, specification 2.1*, where I control for the possibility of the controlling owner being CEO, and for the use of super-voting shares, show that a founder family that also controls the CEO-position is significantly, negatively related to firm performance. The effect is a Tobin's Q that is 18.2 percent lower than for firms with dispersed ownership, quite a strong negative relationship. As for hypothesis 2, these results indicate that founder family control per se does not imply worst firm performance, since non-founder family control is associated with worse firm performance. As for non-founder families there exists no significant CEO-effect. Furthermore, there is still no relationship between firm performance and the use of super-voting shares.

The results in *table 7* indicate that there are some negative effects when the family controls the CEO-position, an effect stemming from founder families. So, there is some evidence in favour of hypothesis 3, which stated that family control over the CEO-position is negative for firm performance. As for hypothesis 4, it can be rejected. The families' use of dual-class shares does not seem to affect firm performance.

All in all, I can conclude that there seem to be a difference between family firms and firms with dispersed ownership when it comes to firm performance. Family firms perform worse. This negative relationship is strongest in companies that have a founder family, which also controls the CEO-position, as controlling owner. Non-founder family control is also associated with worse performance compared to firms with dispersed ownership.

Family control seems to imply costs to the firms that are not present when there is no controlling owner, especially when the CEO-position is controlled. Based on the hypotheses and previous discussions, one plausible explanation would be that the owners are entrenched. They are shielded from the threat of corporate take-over. This results in agency costs, mainly caused by heirs in control, failing to make the right management decisions. A bit surprisingly, there also seem to be agency costs associated with non-founder families.

When someone from the controlling family is CEO, the owners are very entrenched. The CEO-position leads to increased agency costs, since the owner has more power. The worst scenario for the firm is when the controlling owner is a founder family that also controls the CEO-position. The ownership of the firm and the CEO-position might be in the hands of some relative to the founder that is not the right person for the job. Bad decisions taken by an heir have a large impact on the firm.

8.2. The Relation between Firm Performance, Families' Vote- and Excess Vote Ownership

How, then, does the controlling owners vote ownership and excess vote ownership relate to firm value? *Table 8* presents the results of these estimations with the log of Tobin's Q as dependent variable. *Specification 3* shows that families' excess vote ownership is significantly, negatively related to firm performance. A percentage point increase in excess vote ownership implies on average a 0.3 percent decrease in Tobin's Q. However families' vote ownership does not seem to be related to firm performance. In line with hypothesis 1, family firms seem to have worse firm performance than firms with dispersed ownership. This is consistent with the results in the previous section

The results for *specification 4* show that founder families' excess vote ownership is significantly, negatively related to firm value. The negative relation is 0.8 percent. Neither the families' vote ownership nor the non-founder families' excess vote ownership is significantly related to firm value. In line with hypothesis 2, and consistent with previous results, founder family firms seem to perform worst.

Now we turn to the effects of the families also controlling the CEO-position. *Specification 3.1* indicates that the negative relationship found in *specification 3* was caused by the cases when the families control the CEO-position. The significant and negative effect is 0.8 percent per percentage point.

The results for *specification 3.1* show that when controlling for CEO-effects and the use of super-voting shares family firms perform similarly to firms characterized by a dispersed ownership structure. So, hypothesis 5 is accepted. This hypothesis was previously rejected.

The estimation of *specification 4.1* shows that the excess vote ownership is significantly, negatively related to company value only when the families are controlling owners and CEO:s. The negative relation is around 1 percent per percentage point increased excess vote ownership. Since it is not uncommon with excess vote ownership around 25 percent this is a huge number. Non-founder families' vote ownership now, when the family also is managing the firm, has a positive and significant relationship to firm performance.

As for the CEO-effect, there is mixed evidence. There seems to be a negative effect stemming from family control over the CEO-position, but this effect is only present in combination with the use of super-voting shares. In fact there is a positive effect stemming from non-founder family vote ownership combined with the CEO-position. Overall, though, hypothesis 3 is not rejected. Also this result is consistent with the ones in the previous section.

The evidence in *Table 8* clearly shows that super-voting shares have a negative effect on firm performance, contrasting the results for the first model. There seems to be a linearly increasing effect of the use of super-voting shares not picked up in the first model. Thus, hypothesis 4 is in this case accepted. The negative effects of super-voting shares are present when the families also control the CEO-position.

All in all, the results in *table 8* indicate that more votes for the controlling owner do not seem to be bad for the company. A powerful controlling owner, in terms of votes, does not seem to have a pronounced relation to firm value. Thus, there is no evidence of an entrenchment effect, leading to agency costs, that increases with the vote ownership. If any, there is a positive relation when the controlling owner is a non-founder family that is also CEO. The cause of this is not clear.

The use of super-voting shares, on the other hand, leads to a separation of ownership and control. The controlling owner has stronger incentives to expropriate minority shareholders. The costs of the controlling owner's private benefits of control increases. This effect stems from the cases when the families also controls the CEO-position. In this case the owner has almost absolute control and further separation of ownership and control has a strong negative effect.

Table 9 displays results of OLS-estimations of *specification 1* and *3*. These estimations are performed in order to check if there is any between-variation in the sample. The results indicate that there is indeed between-variation. The results are somewhat different compared to the fixed firm-effects estimations. Family control is associated with worse firm performance. However the use of super-voting shares does not seem to affect firm performance.

9. Concluding discussion

What conclusions can be drawn from all this? Well, first and foremost it is clear that the controlling owners in family firms control a large portion of the company votes. It is also quite common for someone from the controlling family to act as CEO, especially in founder family firms. The use of dual-class shares is also common, especially in the firms where the controlling owner is also managing the firm. This indicates that many controlling families have great power over their firms, and also incentives to expropriate minority shareholders due to the separation of ownership and control caused by the use of super-voting shares. Furthermore the owners in founder family firms are quite stable in their ownership, in contrast to non-founder families who move in and out of firms more frequently. The latter families are more of investors, interested in short-term profits.

Furthermore, the empirical results show that family firms appear to be run differently compared to firms with dispersed ownership. Swedish companies, which are controlled by families, exhibit worse firm performance, captured by Tobin's Q, than companies characterized by dispersed ownership. This fact seems to be caused, mainly by founder families. Founder families are associated with inefficiencies that are not present in the other firms. Furthermore, the CEO-position seems to have a negative marginal effect on firm performance, stemming from founder families. Some of the empirical results indicate that super-voting shares is part of the problem with family control.

Part of the poor firm performance in family firms could be caused by entrenchment of poor managing skills. Since many of the families have such a strong foothold in the firms they are hard to get rid of. Furthermore they have no incentives to relinquish control themselves, since there are private benefits of control, and also because the firm might have a sentimental value. The controlling owners remain in the firms too long, thus creating

agency costs since the right company decisions are not made. This seems to be the case especially for founder family firms, caused by heirs in control. Ineffective investments might be made by heirs, resulting in lower future profits. However, there are signs of costs also in non-founder family firms. These could also be agency costs, caused by non-founder families failing to make the right decisions. Another explanation for the poor firm performance in non-founder family firms might be that the large owners do not have a well diversified portfolio and they are thus very risk averse. A poorly diversified portfolio leads to suboptimal investment decisions. Future growth might be inhibited.

The main part of the poor firm performance in family firms is most likely due to families' control of the CEO-positions, combined with extensive use of super-voting shares.

When the controlling owner also is the CEO, the owner is very entrenched. It is difficult to replace the management team and the board, and the controlling owner has a large impact on firm decisions, indicating increased agency costs. As, expected, this reasoning applies mainly to founder families.

The first part of the empirical analysis shows no sign of any effects of the use of super-voting shares, however the analysis of the effects of vote ownership and excess vote ownership, indicate that super-voting shares do create some inefficiencies. The CEO-position seems to be what is causing the negative effects of super-voting shares. Dual-class shares causes separation of ownership and control. The controlling owners have incentive to expropriate the minority shareholder. Combined with a position as CEO, the controlling owner is powerful enough to extract the private benefits.

I argue that the results indicate that there are less costs stemming from private benefits of control in family firms, because of the controlling owner's stock ownership. Instead there are higher costs associated with bad investment decisions, agency costs. In fact, family firms are mainly associated with agency costs, while firms with a dispersed ownership

are mainly associated with costs of private benefits of control. The agency costs in family firms mainly stem from founder family firms, which in many cases are controlled by heirs to the founders. These heirs do not possess the right skills to run the firms. Professional managers are superior when it comes to running a company (Burkart et al., 2003). The agency costs, due to entrenchment, cause family firms to perform slightly worse than firms with dispersed ownership. Furthermore, since many of the families control the CEO-position, and also use super-voting shares, family firm performance is further deteriorated. The CEO-position causes increased agency costs when in the hands of a controlling owner, because of further entrenchment. The CEO-effect stems from founder families, in particular founders' heirs, controlling the CEO-position. When the controlling owner is CEO, dual-class shares leads to expropriation of minority shareholders. The controlling owner is powerful enough to extract more private benefits of control. It is quite common that the controlling owner is CEO, and the use of super-voting shares is widespread. Thus, the overall negative impact of family control is in large part caused by families controlling the CEO-position and using super-voting shares. In particular, founder family controlled firms perform worst, due to the fact that ownership, to a high degree, is inherited in these firms, and because of the prevalence of family CEOs using super-voting shares.

My belief is that much of the problem lies in the use of corporate control instruments such as dual class shares, though further research is needed to confirm this belief. Also, pyramids, which are frequently used by many families, might explain part of the negative effects of family control. Furthermore, in order to better understand what the families really do, one would want to examine ROA, investment and dividend patterns etc. It would also be valuable to use an instrumental variable approach in this context, since there might be a problem with reverse causality that is not handled in this paper, although such a project hinges on the possibilities to find good instruments for the family ownership variables.

References

Adams, R. B., Almeida, H. and Ferreira, D. 2003. Understanding the Relationship between Founder-CEOs and Firm Performance. Working paper.

Anderson, R. C. and Reeb, D. M. 2003. Founding-Family Ownership and Firm Performance: Evidence from the S&P 500. *Journal of Finance* 58, 1301-1328.

Anderson, R. C., Mansi, S. A. and Reeb, D. M. 2003. Founding Family Ownership and the Agency Cost of Debt. *Journal of Financial Economics* 68, 263-285.

Barclay, M. and Holderness, C. 1989. Private Benefits from Control of Public Corporations. *Journal of Finance* 25, 371-396

Burkart, M., Panunzi, F. and Shleifer, A. 2003. Family Firms. *Journal of Finance* 58, 2167-2201.

Bøhren, Ø. and Ødegaard, B. A. 2004. Governance and Performance Revisited. Working paper.

Chung, K. H., and Pruitt, S. W. 1994. A Simple Approximation of Tobin's q. *Financial Management* 23, 70-74.

Cronqvist, H. and Nilsson, M. 2003. Agency Costs of Controlling Minority Shareholders. *Journal of Financial and Quantitative Analysis* 38.

Demsetz, H. and Lehn, K. 1985. The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Economy* 93, 1155-1177.

Demsetz, H. and Villalonga, B. 2001. Ownership Structure and Corporate Performance. *Journal of Corporate Finance* 7, 209-233.

Denis, D. J. and Denis, D. K. 1994. Majority Owner-Managers and Organizational Efficiency. *Journal of Corporate Finance* 1, 91-118.

Dyck, A. and Zingales, L. 2002. Private Benefits of Control: An International Comparison. Working paper 8711.

Fahlenbrach, R. 2004. Founder-CEOs and Stock Market Performance. Working paper.

Heaney, R. and Holmén, M. 2004. The Cost to the Owner-Manager of Under-Diversification. Working Paper.

Hillier, D. and McColgan, P. 2005. Firm Performance, Entrenchment and Managerial Succession in Family Firms. Working Paper.

Himmelberg, C. P., Hubbard, R. G. and Palia, D. 1999. Understanding the Determinants of Managerial Ownership and the Link between Ownership and Performance. *Journal of Financial Economics* 53, 353-384.

Holderness, C. G. and Sheehan, D. P. 1988. The Role of Majority Shareholders in Publicly Held Corporations. An Exploratory Analysis. *Journal of Financial Economics* 20, 317-346.

Holmén, M. and Högfeldt, P. 2004. A Law and Finance Analysis of Initial Public Offerings. *Journal of Financial Intermediation* 13, 324-358.

Holmén, M. and Högfeldt, P. 2005. Pyramidal Discounts: Tunneling or Agency Costs? Working paper.

Holmén, M. and Knopf, J. D. 2004. Minority Shareholder Protections and the Private Benefits of Control for Swedish Mergers. *Journal of Financial and Quantitative Analysis* 39, 167-191.

La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. 1999. Corporate Ownership around the World. *The Journal of Finance* 54, 471-517.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. 2000. Investor Protection and Corporate Governance. *Journal of Financial Economics* 58, 3-27.

McConnell, J. J. and Servaes, H. 1990. Additional Evidence on Equity Ownership and Corporate Value. *Journal of Financial Economics* 27, 595-612.

Morck, R., Shleifer, A., and Vishny, R. W. 1988. Management Ownership and Market Valuation. An Empirical Analysis. *Journal of Financial Economics* 20, 293-315.

Morck, R. K., Strangeland, D. A. and Yeung, B. 2000. Inherited Wealth, Corporate Control and Economic Growth: the Canadian Disease? NBER Working paper 6814.

Morck, R. K., Wolfenzon, D. A. and Yeung, B. 2004. Corporate Governance, Economic Entrenchment and Growth. NBER Working paper 10692.

Nenova, T. 2003. The Value of Corporate Voting Rights and Control: A Cross-Country Analysis. *Journal of Financial Economics*. 68, 325-351.

Pérez-González, F. 2002. Inherited Control and Firm Performance. Working paper.

Perfect, S. B. and Wiles K. W. 1994. Alternative Constructions of Tobin's q: An Empirical Comparison. *Journal of Empirical Finance* 1, 313-341.

Roe, M. J. 2002. Corporate Law's Limits. *Journal of Legal Studies*. 31, 233-271.

Shleifer, A. and Vishny, R. W. 1997. A Survey of Corporate Governance. *The Journal of Finance* 52, 737-783.

Sundqvist, S.-I. and Sundin, A.-M. 1986-2001. *Ägarna och makten i svenska börsnoterade företag*. DN Ägarservice.

Thomsen, S., Pedersen, T. and Kvist, H. K. 2003. The Effect of Blockholder Ownership on Firm Value in Market- and Control-Based Governance Systems. Working paper.

Villalonga, B. and Amit, R. 2004. How Do Family Ownership, Control, and Management Affect Firm Value? *Journal of Financial Economics* (forthcoming)

Zhou, X. 2001. Understanding the Determination of Managerial Ownership and Its Relationship to Firm Performance: Comment. *Journal of Financial Economics* 62, 559-571.

Tables

Table 1

Definitions of and Descriptive Statistics for Tobin's Q and Other Firm Characteristics

Variable	Definition	Mean	Median	Std. dev.
Tobin's Q	$\frac{\text{Market value of equity} + \text{Book value of total debt}}{\text{Book value of total assets}}$	1.485	1.126	1.489
ROA	$\frac{\text{Earnings before interest, taxes and depreciation}}{\text{Book value of total assets}}$	0.110	0.111	0.100
Age	Firm age (years)	60.043	48.000	77.538
Size	Book value of total assets (million SEK)	8764.342	1087.000	21032.370
Leverage	$\frac{\text{Book value of total debt}}{\text{Book value of total assets}}$	0.571	0.584	0.170
Sales fraction	$\frac{\text{Total sales}}{\text{Book value of total assets}}$	1.082	1.164	0.630
PPE-fraction	$\frac{\text{Property, plant and equipment}}{\text{Book value of total assets}}$	0.450	0.423	0.284
CAPEX-fraction	$\frac{\text{Investments}}{\text{Book value of total assets}}$	0.113	0.085	0.103

The sample consists of 1,155 firm-year observations for 144 companies listed on the Stockholm Stock Exchange during 1985-2000. The accounting data has been collected from the Findata TRUST.

Table 2

**The Distribution of Owner Categories and Mean Vote- and Excess Vote Ownership for
these Categories**

Owner	N	Fraction (%, N=1,155)	Mean vote ownership (%)	Mean excess vote ownership (%)	Prevalence of dual-class shares (%)
All					
<u>Family</u>	908	78.615	62.048 (0.621)	23.028 (0.505)	90.529
Family with CEO	283	24.502	67.076 (0.926)	26.455 (0.644)	97.880
Family without CEO	625	54.113	59.771 (0.783)	21.476 (0.664)	87.200
<u>Dispersed ownership</u>	247	21.385	0	0	62.753
Family owners					
<u>Founder family</u>	378	32.727	72.077 (0.683)	27.601 (0.532)	99.471
Founder family with CEO	174	15.065	73.228 (1.002)	26.545 (0.768)	100.000
Founder family without CEO	204	17.662	71.096 (0.930)	28.501 (0.733)	99.020
<u>Non-founder family</u>	530	45.887	54.895 (0.815)	19.767 (0.747)	84.151
Non-founder family with CEO	109	9.437	57.255 (1.339)	26.311 (1.144)	94.495
Non-founder family without CEO	421	36.450	54.284 (0.964)	18.072 (0.874)	81.473

The fractions in the table are for the full sample of 1,155 firm-year observations, from 1985-2000. Ownership data has been collected from Sundqvist and Sundin's overview of the ownership structure in Swedish public companies (1986- 2001). In order to be a controlling owner, the family or individual has to be the largest shareholder (votes) and at the same time own at least 25 percent of the votes. If there is no controlling owner the firm is classified as having dispersed ownership. It is also taken into account whether someone from the controlling family is CEO, or not. The table shows the mean percentage of votes, and the mean percentage of excess votes, for each category of ownership structure. Excess vote ownership is calculated as vote ownership minus equity ownership. The last column displays the percentage of the firms in the different categories that use dual-class shares.

Numbers in parentheses are standard errors.

Table 3

The Prevalence of a Controlling Owner who is also CEO in the Different Family Groups

Family group	Fraction of companies with a controlling owner that is CEO (%)
Family	31.167
Founder family	46.032
Non-founder family	20.566

The total sample consists of 1,155 firm-year observations, from 1985-2000. Ownership data has been collected from Sundqvist and Sundin's overview of the ownership structure in Swedish public companies (1986- 2001).

Table 4

Mean Values of Tobin's Q and Other Firm Characteristics for Different Ownership**Categories**

Panel A

Family Firms and Firms with Dispersed Ownership

Owner	Tobin's Q	ROA	Age (years)	Size (million SEK)	Leverage	Sales fraction	PPE- fraction	CAPEX- fraction
Family	1.379 (1.115) [1.176]	0.113 (0.111) [0.082]	60.798 (49) [76.023]	6330.541 (909) [13882.530]	0.583 (0.596) [0.166]	1.090 (1.177) [0.649]	0.452 (0.423) [0.303]	0.114 (0.087) [0.104]
Dispersed ownership	1.875 (1.212) [2.259]	0.101 (0.114) [0.148]	57.267 (35) [82.970]	17711.270 (2116) [35529.260]	0.528 (0.542) [0.179]	1.054 (1.124) [0.557]	0.442 (0.416) [0.201]	0.109 (0.079) [0.099]
Tests								
t-test	-4.687***	1.747*	0.635	-7.730***	4.551***	0.794	0.476	0.639
Wilcoxon ranksum test	-4.418***	0.692	2.092**	-6.274***	4.426***	0.951	0.605	1.118

The sample consists of 1,155 firm-year observations, from 1985-2000. Ownership data has been collected from Sundqvist and Sundin's overview of the ownership structure in Swedish public companies (1986- 2001). There are 908 family firm observations, and 247 observations with dispersed ownership.

Numbers in parentheses are medians.

Numbers in brackets are standard deviations.

The test-statistics are displayed for the t-test (t-statistics) and Wilcoxon ranksum test (z-statistics). *, ** and *** indicates significance on the 10 percent-, 5 percent- and 1 percent-levels respectively, for double-sided tests.

Table 4

Panel B

Founder Family Firms and Non-Founder Family Firms

Owner	Tobin's Q	ROA	Age (years)	Size (million SEK)	Leverage	Sales fraction	PPE-fraction	CAPEX-fraction
Founder family	1.366 (1.135) [1.240]	0.124 (0.115) [0.075]	55.365 (49.500) [38.844]	2469.273 (621) [4997.698]	0.564 (0.559) [0.165]	1.200 (1.298) [0.659]	0.397 (0.386) [0.191]	0.111 (0.088) [0.101]
Non-founder family	1.389 (1.099) [1.128]	0.105 (0.110) [0.085]	64.674 (47) [93.797]	9084.427 (1424) [17157.650]	0.597 (0.617) [0.166]	1.011 (1.073) [0.631]	0.491 (0.465) [0.357]	0.116 (0.086) [0.105]
Tests								
t-test	-0.293	3.464***	-1.821*	-7.278***	-2.965***	4.354***	-4.620***	-0.717
Wilcoxon ranksum test	0.892	2.058**	1.026	-7.233***	-3.892***	5.136***	-5.667***	-1.048

There are 378 founder family firm observations, and 530 non-founder family firm observations.

Table 4

Panel C

Family Firms with, and without Family CEO

Owner	Tobin's Q	ROA	Age (years)	Size (million SEK)	Leverage	Sales fraction	PPE- fraction	CAPEX- fraction
Family with CEO	1.354 (1.078) [1.154]	0.105 (0.103) [0.093]	57.364 (51) [45.210]	1386.581 (552) [2445.550]	0.562 (0.573) [0.186]	1.187 (1.256) [0.738]	0.412 (0.384) [0.215]	0.117 (0.087) [0.108]
Family without CEO	1.391 (1.130) [1.186]	0.117 (0.115) [0.076]	62.354 (48) [86.425]	8569.167 (1511) [16165.470]	0.592 (0.608) [0.156]	1.046 (1.138) [0.600]	0.470 (0.435) [0.334]	0.112 (0.087) [0.102]
Tests								
t-test	-0.441	-2.110**	-0.916	-7.434***	-2.538**	3.047***	-2.699***	0.656
Wilcoxon ranksum test	-2.864***	-1.466	0.548	-8.601***	-2.613***	2.939***	-3.120***	0.259

There are 283 family-CEO firm observations, and 625 non-family-CEO firm observations.

Table 4

Panel D

Family Firms where the Controlling Owner uses Super-Voting Shares, and Family Firms
where the Controlling Owner does not use Super-Voting Shares

Owner	Tobin's Q	ROA	Age (years)	Size (million SEK)	Leverage	Sales fraction	PPE- fraction	CAPEX- fraction
Family using super- voting shares	1.394 (1.119) [1.215]	0.114 (0.112) [0.081]	58.813 (49) [68.791]	6276.562 (826) [14099.820]	0.582 (0.598) [0.166]	1.095 (1.186) [0.662]	0.450 (0.424) [0.311]	0.115 (0.089) [0.104]
Family not using super-voting shares	1.264 (1.091) [0.794]	0.105 (0.108) [0.090]	76.663 (55) [118.291]	6761.842 (1355) [12059.580]	0.594 (0.594) [0.166]	1.042 (1.152) [0.531]	0.464 (0.410) [0.232]	0.106 (0.079) [0.102]
Tests								
t-test	1.048	1.045	-2.230**	-0.331	-0.681	0.775	-0.415	0.824
Wilcoxon ranksum test	1.220	1.089	-0.830	-3.496***	-0.651	0.692	-0.271	0.954

There are 807 observations on family firms using super-voting shares, and 101 observations where the controlling family does not use super-voting shares.

When a family's excess vote ownership, the fraction of votes minus the fraction of equity, is larger than zero, the family is categorized as using super-voting shares.

Table 5

Mean Values of Tobin's Q for Different Industries

Industry	n	Tobin's Q
Technical manufacturing	267	1.340 (1.132)
Consumer products manufacturing	111	1.654 (1.123)
Forestry and mining	89	1.032 (0.977)
Trade	78	1.855 (1.286)
Pharmaceuticals	81	1.936 (1.555)
Construction	88	1.119 (1.081)
General services	105	1.321 (1.160)
Commercial services	95	2.077 (1.447)
Transport services	78	1.462 (1.046)
Research and development	46	2.267 (1.254)
Conglomerates	55	1.150 (1.062)
Real estate intermediaries	62	1.043 (0.959)

The sample consists of 1,155 firm-year observations, from 1985-2000. Numbers in parentheses are medians.

Table 6

Changes in Ownership Variables Over Time

Ownership	Number of firms
Family	45 (83)
Family with CEO	35 (10)
Founder family	9 (31)
Founder family with CEO	19 (5)
Non-founder family	46 (47)
Non-founder family with CEO	18 (4)
Super-voting shares	35 (70)

The sample consists of an unbalanced panel of 144 firms observed, from 1985-2000. The ownership variables consist of dummy variables indicating type of controlling owner (family, founder family, non-founder family, or dispersed ownership), if the owner also controls the CEO-position, and if the owner uses super-voting shares. The table displays for how many of the firms there is a change in the dummy variable over time. The numbers in parentheses are the number of firms for which the ownership variable is constant over time.

Table 7

Paneldata Estimations with Fixed Firm-Effects and Dummies. Dependent Variable: lnQ

Independent variable	Specification 1	Specification 2	Specification 1.1	Specification 2.1
Family	-0.096** (0.043)		-0.071* (0.037)	
Family and CEO			-0.128*** (0.043)	
Founder family		-0.182*** (0.065)		-0.126 (0.078)
Founder family and CEO				-0.182*** (0.053)
Non-founder family		-0.088** (0.045)		-0.075** (0.037)
Non-founder family and CEO				-0.056 (0.063)
Super-voting shares			-0.021 (0.058)	-0.018 (0.061)
ln(Age)	-0.140*** (0.039)	-0.136*** (0.039)	-0.140*** (0.037)	-0.132*** (0.038)
ln(Size)	-0.002 (0.104)	-0.029 (0.112)	-0.021 (0.104)	-0.041 (0.111)
(ln(Size)) ²	0.0004 (0.007)	0.0017 (0.008)	0.001 (0.007)	0.002 (0.007)
ROA	0.584** (0.235)	0.611*** (0.238)	0.598* (0.232)	0.610*** (0.234)
Leverage	0.046 (0.129)	0.064 (0.129)	0.018 (0.129)	0.032 (0.129)
Sales fraction	-0.103** (0.041)	-0.108*** (0.041)	-0.110*** (0.041)	-0.116*** (0.041)
PPE-fraction	-0.004 (0.063)	-0.002 (0.062)	0.002 (0.059)	0.005 (0.057)
CAPEX-fraction	0.184* (0.098)	0.177* (0.098)	0.179* (0.098)	0.170* (0.097)
Constant	0.728** (0.3688)	0.849** (0.404)	0.847** (0.368)	0.941** (0.405)
Year dummies	Yes	Yes	Yes	Yes
n	1,155	1,155	1,155	1,155
Adjusted R ²	0.660	0.660	0.664	0.666

The table shows the results for fixed firm-effects estimations of the log of Tobin's Q on dummies for different controlling owner categories. *Specification 1* has one dummy that indicates whether the controlling owner is a family. *Specification 2* has dummies that indicate whether the controlling owner is a founder family or a non-founder family. *Specification 1.1* has one dummy for families, one for families that are also CEOs, and a final one indicating whether the family uses super-voting shares or not. *Specification 2.1* has the same dummies as *specification 2*, but also controls for CEO-effects and effects of super-voting shares being used. There are 15 year dummies (1986-2000).

The numbers in parentheses are White's robust standard errors.

*, ** and *** indicates significance on the 10 percent-, 5 percent- and 1 percent-levels respectively, for double-sided tests.

Table 8

Paneldata Estimations with Fixed Effects and Vote Ownership Variables. Dependent Variable: lnQ

Independent variable	Specification 3	Specification 4	Specification 3.1	Specification 4.1
Vote family	-6.23e-06 (0.0007)		-0.0004 (0.0007)	
Vote family and CEO			0.001 (0.0008)	
Excess vote family	-0.003** (0.001)		-0.0009 (0.001)	
Excess vote family and CEO			-0.008*** (0.002)	
Vote founder family		0.001 (0.001)		0.0002 (0.001)
Vote founder family and CEO				0.0006 (0.0008)
Excess vote founder family		-0.008*** (0.002)		-0.002 (0.003)
Excess vote founder family and CEO				-0.009*** (0.003)
Vote non-founder family		-0.0004 (0.0008)		-0.0007 (0.0008)
Vote non-founder family and CEO				0.004** (0.002)
Excess vote non-founder family		-0.001 (0.001)		-0.0005 (0.001)
Excess vote non-founder family and CEO				-0.010** (0.004)
ln(Age)	-0.144*** (0.039)	-0.151*** (0.040)	-0.139*** (0.037)	-0.138*** (0.039)
ln(Size)	-0.0006 (0.105)	-0.006 (0.114)	-0.015 (0.105)	-0.008 (0.112)
(ln(Size)) ²	0.0004 (0.007)	0.0003 (0.008)	0.0003 (0.007)	-0.0007 (0.007)
ROA	0.570** (0.238)	0.575** (0.240)	0.567** (0.233)	0.555** (0.236)
Leverage	0.039 (0.129)	0.056 (0.130)	0.030 (0.130)	0.045 (0.129)
Sales fraction	-0.105*** (0.040)	-0.104*** (0.040)	-0.110*** (0.041)	-0.106*** (0.040)
PPE-fraction	0.002 (0.062)	-0.0001 (0.061)	0.003 (0.058)	0.007 (0.054)
CAPEX-fraction	0.187* (0.098)	0.191* (0.098)	0.197 (0.097)	0.202** (0.097)
Constant	0.706* (0.370)	0.758* (0.411)	0.815** (0.372)	0.796* (0.408)
Year dummies	Yes	Yes	Yes	Yes
n	1,155	1,155	1,155	1,155
Adjusted R ²	0.659	0.660	0.666	0.667

The table shows the results for fixed firm-effects estimations of the log of Tobin's Q on vote ownership and excess vote ownership for different controlling owner categories. *Specification 3* indicates the effect these variables have for a family. *Specification 4* separates the effects of a founder family from those of a non-founder

family. *Specification 3.1* looks at the effects of families and families that are also CEOs. Finally *specification 4.1* has the same variables as *specification 4* and also indicates the effects of the different families when they are CEOs. For firms with dispersed ownership, vote ownership and excess vote ownership takes on the values of 0. There are 15 year dummies (1986-2000).

The numbers in parentheses are White's robust standard errors.

*, ** and *** indicates significance on the 10 percent-, 5 percent- and 1 percent-levels respectively, for double-sided tests.

Table 9

OLS-estimations of *Specification 1* and *3*. Dependent Variable: lnQ

Independent variable	Specification 1	Specification 3
Family	-0.138** (0.064)	
Vote family		-0.002** (0.001)
Excess vote family		0.001 (0.002)
ln(Age)	-0.009 (0.022)	-0.009 (0.022)
ln(Size)	0.048 (0.134)	0.031 (0.129)
(ln(Size)) ²	-0.003 (0.008)	-0.002 (0.008)
ROA	0.247 (0.400)	0.261 (0.403)
Leverage	-0.861*** (0.253)	-0.855*** (0.251)
Sales fraction	0.015 (0.049)	0.016 (0.049)
PPE-fraction	-0.128 (0.131)	-0.138 (0.134)
CAPEX-fraction	0.275* (0.142)	0.279* (0.144)
Constant	0.566 (0.517)	0.627 (0.510)
Year dummies	Yes	Yes
Industry dummies	Yes	Yes
n	1,155	1,155
Adjusted R ²	0.300	0.300

The table shows OLS-estimation results for *specification 1*, and *specification 3*. There are 15 year dummies (1986-2000), and 11 industry dummies.

The numbers in parentheses are White's robust standard errors, adjusted for clustered observations. *, ** and *** indicates significance on the 10 percent-, 5 percent- and 1 percent-levels respectively, for double-sided tests.

Figure 1.1

Mean Tobin's Q over Time, for Different Ownership Structures, 1985-2000



Figure 1.2

Median Tobin's Q over Time, for Different Ownership Structures, 1985-2000

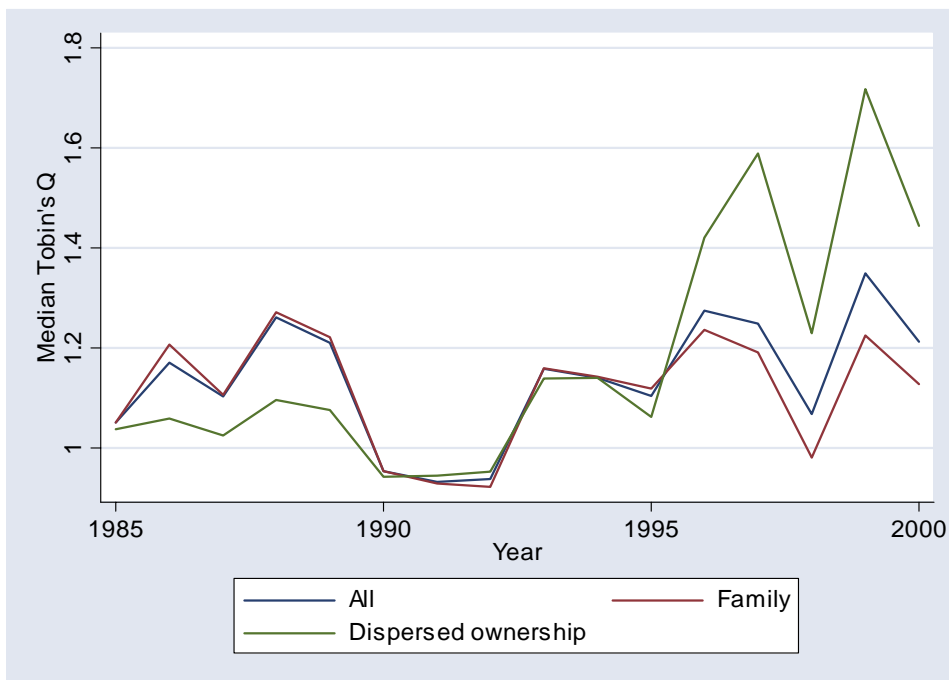


Figure 2.1

Mean Tobin's Q over Time, for Family Controlled Firms, 1985-2000

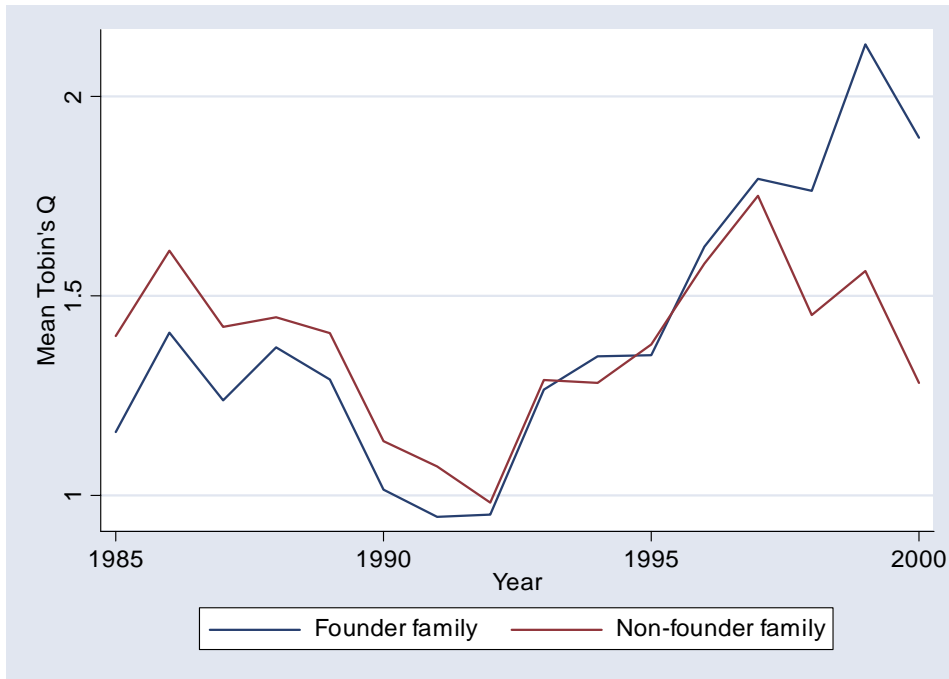


Figure 2.2

Median Tobin's Q over Time, for Family Controlled Firms, 1985-2000

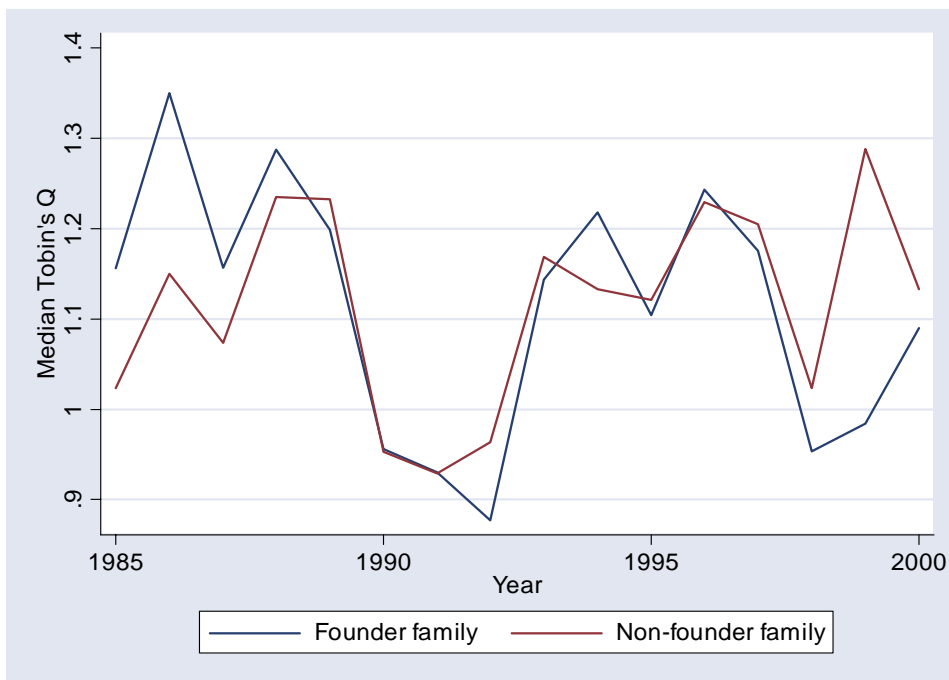


Figure 3.1

Mean Tobin's Q over Time, for Family Controlled Firms with, and without Family CEO, 1985-2000

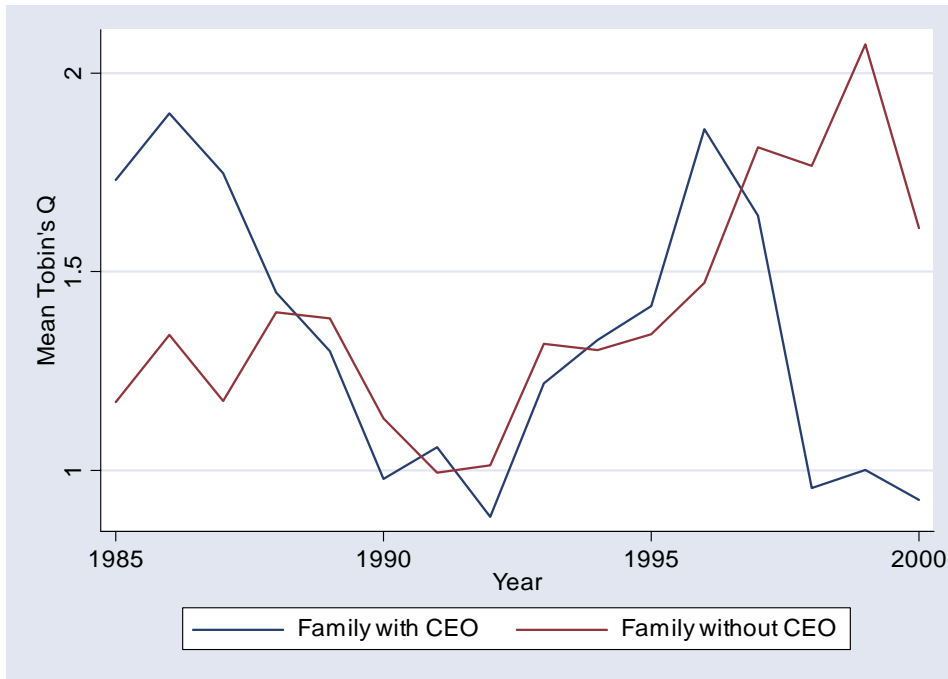


Figure 3.2

Median Tobin's Q over Time, for Family Controlled Firms with, and without Family CEO, 1985-2000

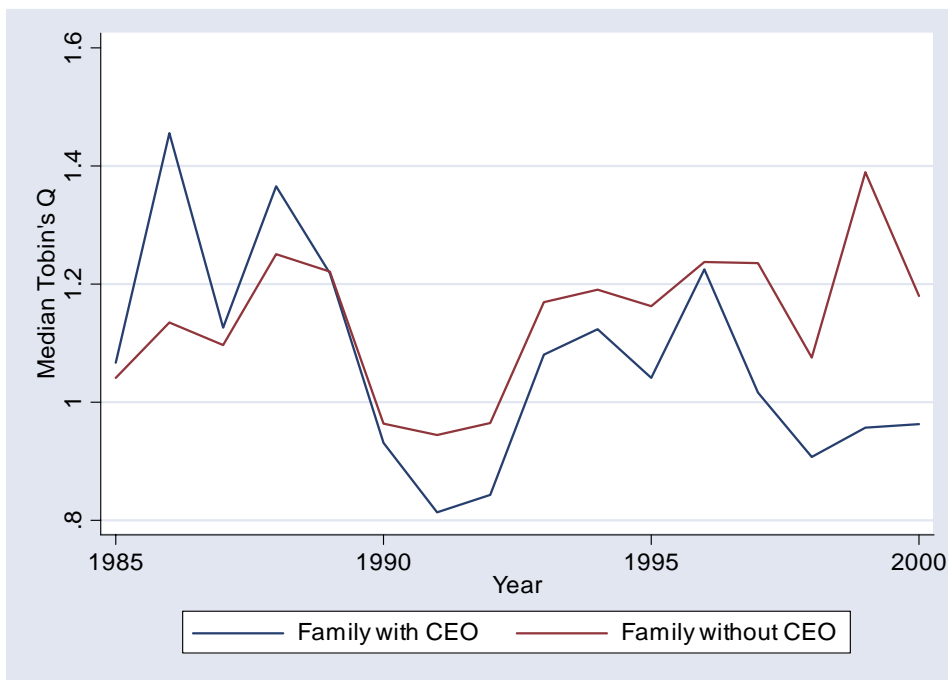
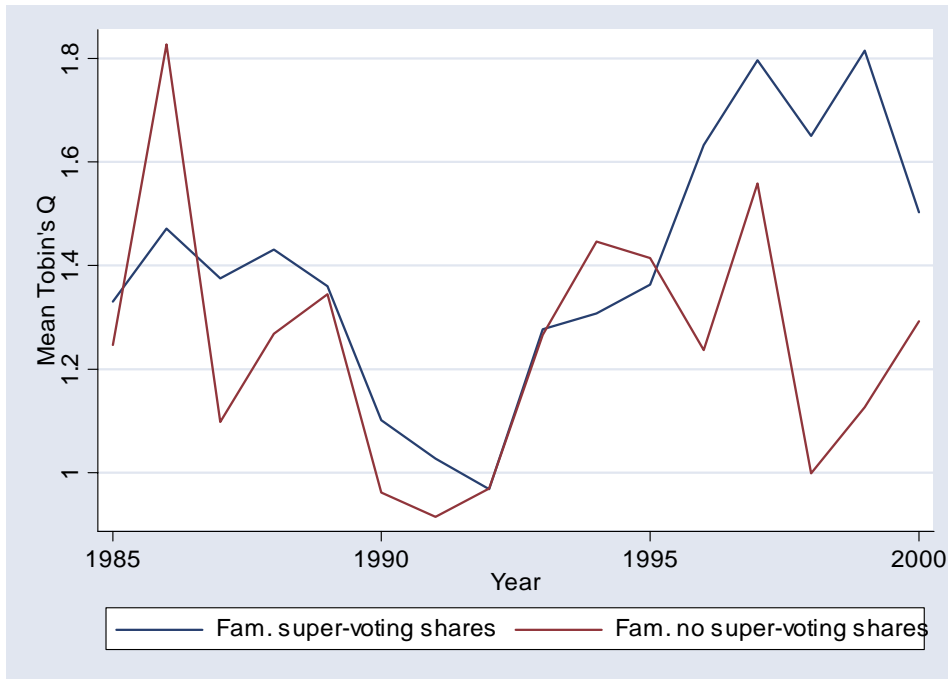


Figure 4.1

Mean Tobin's Q over Time, for Family Controlled Firms, Depending on Use of Super-Voting Shares, 1985-2000



When a family's excess vote ownership, the fraction of votes minus the fraction of equity, is larger than zero, the family is categorized as using super-voting shares.

Figure 4.2

Median Tobin's Q over Time, for Family Controlled Firms, Depending on Use of Super-Voting Shares, 1985-2000

