

Family Ownership, Multiple Blockholders and Firm Performance*

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Abstract

Recent research has documented that family-controlled firms are very common around the world. This paper provides new evidence on the accounting and market performance of this type of companies. The empirical investigation is conducted on a market in which family firms are well-established and represent the most widespread form of ownership, namely Switzerland. Using panel data for the period 2003 to 2007 on companies listed on the Swiss exchange, we find evidence that family firms have a 1.19 higher Tobin's Q and a 3% higher return on assets than non-family firms. A finer analysis reveals that the outperformance depends on the characteristics of the family business. First, we find evidence that family firms in which a second blockholder is present are even more profitable with a 5% higher return on assets and a 1.27 higher Tobin's Q than non-family firms. In this case not only agency costs between management and shareholders are reduced but also between majority and minority shareholders by limiting private benefit extraction. Second, family firms in which a family is only an investor do not perform better than non-family firms. Only if family members are actively involved in management, as either CEO, Chairman or both do they add value and thus perform significantly better than outsiders. This indicates that family members have superior knowledge on their companies that is lost when they solely hold a financial participation in the firm. Finally, our results also show that these skills are not confined to the founder but are also present in heir-managed family firms. In particular we find that firms with descendant-CEO or founders acting as Chairman have better accounting and market performances.

JEL Classification: G3, G32

Keywords: family firms, ownership structure, corporate governance

1. Introduction

This paper examines how family ownership affects the market and accounting performance of public companies. It pays special attention to two features of family ownership: the presence of other blockholders in capital structure and the degree of involvement of family members in the firm. The paper relates to the recent stream of empirical literature on the effects of concentrated ownership on firm performance.

Until recently, the dominant paradigm in academic literature was that most public companies were widely held. The main challenge was to provide remedies to the classical agency problem present in such corporations. Berle and Means (1932) and later Jensen and Meckling (1976) are among the first to state that the separation between ownership and control can cause problems and incur important costs to shareholders. However, a series of recent studies on ownership structure reveals that in most markets a large number of listed companies do not have a widely dispersed ownership structure. They have in general one or more large shareholders that can be categorised as families, states, other industrial or financial companies. Among these types of owners, family firms appear to be the most common form of ownership.¹ This new view on ownership structure calls for a careful analysis of the consequences family ownership has on agency theory and company performance. Early literature on family firms finds that these firms seem to be more profitable and have a higher market valuation than non-family firms. It seems therefore that family ownership might be a way to reduce agency costs existing between managers and shareholders and thus contribute to more value creation. The potential benefits associated to the presence of a majority shareholder are not new. Berle and Means (1932) already considered this possibility. Such a shareholder would have a far bigger incentive to control management since a large part of his wealth is invested in the company. As a result, every shareholder would benefit from this situation. As convincing as the argument seems to be, authors such as Demsetz (1983) argue that ownership concentration does not have an influence on firm value and that companies chose the form of ownership that minimises agency costs. This view is confirmed by Himmelberg et al. (1999) and Demsetz and Villalonga (2001).

¹ La Porta et al. (1999) in an international study find that 30% of firms are family-controlled while 36% are widely-held. Faccio and Lang (2002) show that family firms are the predominant ownership form in Western Europe except for the UK and Ireland. Claessens et al. (2000) find that in Asian countries approximately 2/3 of firms are owned by families or individuals. Even in the United States where it is widely accepted that companies have a dispersed ownership Anderson and Reeb (2003) find that around 35% of companies in the S&P 500 are familial.

It is widely accepted that the presence of a large shareholder can diminish or does at least not aggravate the classical conflict between firm owners and managers and thus reduce agency costs (Agency Costs I). However, the potential benefits of having a large shareholder in a company can be limited by the appearance of another type of agency problem (Agency Costs II). Large shareholders may influence decisions that foster their personal profit or utility but neglect or even harm minority shareholders. The extraction of private benefits is in the centre of this problem. Since its modelisation by Grossman and Hart (1980) authors have tried to quantify the magnitude of private benefits. Dyck and Zingales (2004) observe that based on a sample of 39 markets throughout the world private benefits of control amount on average to 14% of equity value.

From a theoretical point of view, it is not clear which of the two effects prevails. An increased monitoring of management that result in a better alignment of interests between owner and manager can only be positive while the extraction of private benefits or entrenchment of a large shareholder can be harmful to minority shareholder. Consequently, it becomes an empirical question which effect is predominant.

This paper addresses this question by analyzing empirically the performance of Swiss family firms. We especially focus on the presence of other blockholders in family firms and the influence they have on firm performance and profitability. This is, to our knowledge, one of the very first studies to look in detail at family firms with multiple blockholders. We also investigate the impact of active management by family members, either by the company founder himself, his family or descendants. The Swiss market is especially suited for analyses of family firms, and large shareholders in general, as it is and has been the most widespread form of ownership in this market.

Using data for companies listed on the Swiss stock exchange between 2003 and 2007 we find support for significantly higher performance of family firms as opposed to non-family firms in terms of both market and accounting performance. Profitability is highest for families being majority shareholders whereas market value is also higher for families detaining 20 to 50% of their company. Family firms are not only better performers than non-family firms in general but also compare favourably to firms with different ownership structures. Further analysis shows that not every family firm creates equal value. Only family firms in which a family member is actively involved in day to day management as CEO or Chairman create value. Especially founders acting as Chairman and descendants being CEO enhance corporate value and profitability. Finally, the presence of a second shareholder possessing a stake between 5 and 10% of voting rights in a family company significantly increases market valuation and profitability due to a more limited extraction of private benefits of control.

These findings are generally robust to different econometric techniques and specifications including pooled (average) regressions, instrumental variable 2SLS regressions for endogeneity, the use of a balanced panel, return on equity as alternative accounting measure and winsorising or dropping outliers.

The paper is structured as follows: Section 2 reviews the relevant literature. In section 3 data and variables are presented and defined. Section 4 shows the main results while further robustness tests and specifications are analysed in section 5. Section 6 contains our conclusions.

2. Literature

Studies on ownership structure and on agency theory in the presence of large shareholders mentioned in the previous section have led to several empirical studies on family firms. Researchers have realised that apart from Anglophone countries companies with blockholders and not widely held companies are the norm; this may have an important impact on all the concepts in financial theory that are based on widely held firms.

First studies on the topic were published for the US and Canadian markets. Both McConaughy et al. (1998) for Canada and Anderson and Reeb (2003) for the S&P 500 in the United States find that family firms outperform their non-family counterparts. For the United States market especially family firms with a founding-family member CEO are more profitable. Descendants as CEO, however, do not seem to affect performance positively or negatively. From this first study on it seems that active management by the family and especially by the founder seems important for the firm to create value and be more profitable. These initial results were thereupon extended to different markets and analysed in more refined ways.

Villalonga and Amit (2006) in a study of Fortune 500 companies push the analysis further than Anderson and Reeb and find different results. They suggest a focus on characteristics of family firms in the analysis of their performance. According to their study especially firms in which the founder is active as CEO or Chairman perform well while those with descendants perform worse. A differentiation between ownership and control through control-enhancing mechanisms such as cross-holdings, pyramidal structures or dual-class shares also negatively affect firm performance in many cases. Contrary to Anderson and Reeb it shows that it is wrong to assume that family firms per se outperform non-family firms. Depending on the characteristics of the firm the result may differ significantly. Pérez-González (2006) looks in more detail at CEO succession in family firms. His findings show evidence that inherited control has a negative impact on both firm valuation and profitability which can be interpreted as a sign of nepotism if

founders put their heirs in charge of the firm instead of an outside CEO. This is especially the case for firms in which the descendant did not attend a selective college.

As far as Western Europe is concerned, two cross-country studies by Barontini and Caprio (2006) and Maury (2006) using panel data observe that family firms may have a higher market valuation calculated as Tobin's Q and a higher profitability under certain conditions. Barontini and Caprio find similarities to the study by Villalonga and Amit confirming that especially family firms with founder CEO perform best. However, opposite to the United States companies with descendants perform differently. If the descendant member of the family only assumes a non-executive position the firm still outperforms non-family firms, if he is CEO it performs as well as non-family firms and only if the family takes up no active role at all does it perform worse. Maury on the other side, indicates that active management only enhances profitability but does not have a real impact on firm valuation. He outlines that ownership and control level are drivers for market and accounting performance. Observing a nonlinear relation between control and performance he suggests that benefits from family ownership fade with higher level of controls. Market valuation expressed as Tobin's Q is highest for firms with the family having a low control level which may be interpreted as a sign of increased family opportunism and extraction of private benefits if the family has too much power. Contrarily, profitability increases with family control level which shows that family management improves the efficiency of a company but that minority shareholders cannot really profit from it.

Evidence on single European countries shows similar findings. Family firms outperform others depending on their characteristics. Both Favero et al. (2006) in their study of Italian listed family firms and Sraer and Thesmar (2007) on French listed family firms report that family firms outperform widely held companies and this independent of a founder, descendant or outsider managing the firm. However, Sraer and Thesmar additionally remark that founders explain most of the outperformance and describe different reasons linked to labour force, wages and productivity to explain why the respective management type delivers superior performance. Favero et al. on the other side find evidence that market performance is not different for family firms which is due to the wrong measurement methods. When using a dynamic performance measurement approach they find similar positive results as for accounting measures. In a study on German listed firms Andres (2008) finds that family firms are not only more profitable than widely held companies but also than companies with other kinds of blockholders. In line with evidence found in Sraer and Thesmar (2007), he finds that performance increases in particular with a founding family member actively managing the company and founder-managed companies showing the strongest effect on performance. Maury and Pajuste (2005) develop a model on the

effect of multiple blockholders in a company and empirically implement it on the Finnish market. They find that the effect of multiple blockholders is not necessarily positive and primarily depends upon the size and identity of these large shareholders. Analysing family firms their findings indicate a value reduction for firms in which the family dissociates ownership and control through control-enhancing mechanisms as it allows for a higher probability to extract private benefits. A second large shareholder could reduce this effect. Their results suggest that a second blockholder only has a positive influence on firm value if it is not another family. Thus the presence of two families in a company destroys even more value while the presence of a second non-family blockholder lowers the possibility of extraction of private benefits.²

Literature on family firms in Switzerland is scarce though similar to other Western European countries they represent the majority of listed firms on the Swiss Exchange. Barontini and Caprio (2006) and Maury (2006) include Switzerland in their cross-country studies but do not show results for single countries. Zellweger et al. (2007) analyse abnormal stock returns due to earnings stability and analyst earnings forecast dispersion on the Swiss stock market for the period 1998 to 2003. They show that firms with more stable earnings and a lower variance of analyst forecasts lead to higher abnormal stock returns. Family firms having these two attributes their findings can partly help explain a superior performance of family firms in Switzerland.

3. Data Description

3.1 Data

The analysed dataset covers all companies listed on the Swiss Stock Exchange (SIX) for the period 2003 to 2007. In a first step the sample is reduced to companies included in the Swiss Performance Index (SPI) which ensures that firms with a low free-float or that can be assimilated to investment companies are excluded of the analysis. In a second step all financial firms (ICB 8000) and utility firms (ICB 7000) are discarded. A stronger regulation of financial companies and a heavy influence by the government on utility companies complicates the calculation of comparable and correct Tobin's Q and ROA. Finally all firms for which relevant accounting or market data is not available were also excluded. Sample firms must have been listed in the Swiss

² Literature on multiple blockholders in general is vast and discusses in depth whether the presence of more than one large shareholder can be positive or negative. Bloch and Hege (2001) develop a model where blockholders compete for control and thus do not create value while Bennesen and Wolfenzon (2000) and Zwiebel (1995) show how blockholders can form coalitions in a firm to extract benefits. On the other side Bolton and von Thadden (1998), Winton (1993) and Lehmann and Weigand (2000) show the positive effects of multiple blockholders.

Performance Index at the year-end of at least one year during the observed period. The final sample comprises 772 firm-year observations taken from 178 firms listed on the Swiss Exchange in the period 2003-2007.

3.2 Ownership Variables

The main ownership criterion in our case is represented by the holding of a shareholder of ultimate voting rights in a company. These may diverge considerably from ultimate cash-flow rights for companies with control-enhancing mechanisms which are not uncommon in the Swiss market. Ownership data is hand-collected from the disclosure of shareholdings register of the Swiss Exchange, the Swiss Stock Guide and the firms' annual reports for the respective years. Where these sources did not suffice to exactly determine the ultimate shareholder newspapers, magazines and websites were used to complete the data. For these non-official sources information had to emanate from at least two different sources to ensure the correctness.

The collected ownership data is subdivided into different categories with the family group being the most important one in this analysis. A company with no shareholder owning more than 20% of voting rights is considered widely held. Any firm with a shareholder holding more than 20% faces the presence of a blockholder who can take different forms.³ Though not in full control, this 20% threshold normally allows a shareholder to have a significant influence on the firm in the wake of low shareholder participation at Annual General Meetings.

A blockholder can take five different forms. The category of interest in this paper concerns families or individuals.⁴ To be considered a family firm an individual or a family must be the largest shareholder and hold at least 20% of ultimate voting rights. Individuals must be part of the founding family or where this is not the case must have been an investor over a long period of time and have shaped the company in a substantial way. For example, the Hayek family controls the Swatch Group, a major watch maker. It has held approximately 40% of the shares for the best of the last 20 years, both Mr. Hayek senior and junior as well as other family members are active in the firm and they have shaped the company to make it what it is today. Although not the founder family Swatch can be considered a family firm. This restriction ensures that firms with individuals that are pure financial investors are not mistaken for family firms. Additional information related to family control is also collected from the sources mentioned

³ In the following blockholder, majority or controlling shareholder will be used interchangeably for a shareholder owning more than 20% of a firm's ultimate voting rights.

⁴ In the following the term family will be used even if the blockholder is an individual.

above. Data on CEO, Chairman, and board member identity or any combination thereof by the controlling family is collected as evidence of an active role as opposed to a simple passive ownership.

Another type of blockholders may be a government as a controlling shareholder. Government in this context means a governmental entity which, in Switzerland, can be federal, cantonal (regional) or municipal. Other blockholders may include any company, financial or industrial, but which in both cases is itself widely-held. Finally, a miscellaneous category pools all firms with blockholders that do not fit into any other category. The majority consists of cooperatives that hold the shares of the listed company.

3.3 Control and Performance Variables

Market and accounting performance is measured as Tobin's Q and Return on Assets (ROA) respectively. Tobin's Q is defined as (market value of common equity + book value of total assets – book value of common equity) divided by book value of total assets. In case of companies with multiple listed share classes the value of every single share class is added. For companies with at least one unlisted share class, these shares are valued at the same price as their traded counterparts and adjusted for differences in nominal value where necessary. Villalonga and Amit (2006) and Gompers et al. (2008) use a similar approach in their studies. ROA (EBIT) is calculated as Earnings before Interest and Taxes divided by total assets and ROA (EBITDA) as Earnings Before Interest, Taxes, Depreciation and Amortisation divided by total assets.

The following variables used to control for industry- and firm-specific characteristics, that are standard in the literature, are used for each year. Firm size measured as the logarithm of total assets, age defined as logarithm of years since firm foundation, industry according to the ICB classification, leverage measured as total book value of debt/common shareholder's equity, investment intensity as capex/PPE, growth opportunities as the increase in one-year sales and return volatility as the standard deviation of monthly returns of the preceding 60 months. All data was obtained from Datastream. Missing data in Datastream was complemented by data from the respective annual reports.

3.4 Descriptive statistics

Following the definitions above family firms represent on average 52% of companies in the sample over the period 2003 to 2007. 35% are widely held companies, while 5% respectively 2% are owned by other widely held industrial and financial companies, 4% are state owned and 2%

are categorised as miscellaneous.⁵ These numbers remain very stable over the period examined with only very few companies changing categories.

Table 1 illustrates that family firms are included in 85% of all industries that make up the Swiss Performance Index. Family firms are the sole ownership type in four industries namely, the Leisure and Personal Goods, Beverages and Automobiles and Parts industries. There is no family firm in the Oil and Gas Producing, Mining, Food and Drug Retailing or Fixed Line Telecommunications industry.

[Insert Table 1 about here]

Table 2 shows summary statistics for different variables. Firms in the sample have an average size of 3.25 billion Swiss francs and are 67 years old. Average Tobin's Q is 1.85 while average return on assets is 5.52% and 10.13% respectively with EBIT and EBITDA as numerator. 52% of the firms in the sample are family firms, 35% widely held companies while the rest has a large shareholder other than a family. 31% of these family firms have a CEO member of the family, while 50% have a family Chairman. In 17% of family firms a family member holds both the position of CEO and Chairman. 39% of family firms resort to a capital structure composed of more than one share-class that can either be listed or unlisted.

[Insert Table 2 about here]

Table 3 shows results of the univariate analysis of the sample by testing difference of means between family and non-family firms.

[Insert Table 3 about here]

Family firms have significantly higher return on assets both with EBIT and EBITDA as numerator whereas Tobin's Q is higher but not significantly. Multiple share classes, as control enhancing means for large shareholders, are used in 38% of family firms whereas only 6% of non-family firms do. It suggests that family firms try to preserve the control in their companies.

⁵ The proportion of family firms is similar to findings in the study by Faccio and Lang (2002) who find 56% of family firms while the level of widely-held companies is lower in their study with 26%. Explanations may be found in the exclusion of utility firms in this study that are mostly State controlled, a more rigorous definition of family firms and the different period examined.

As Kunz (2002) outlines, the number of companies with dual-class shares has dramatically decreased in the last 20 years in Switzerland which shows that families and companies are now more inclined to follow the one share one vote principle. Moreover, family firms have significantly lower investment propensity and take on less debt which is in line with US evidence by Anderson and Reeb (2003) or Villalonga and Amit (2006). In contrast to these studies we have observed that family firms have significantly less volatile share prices. This finding supports the notion that family firms have a long term outlook which allows them to be more stable than companies pursuing short term goals. Non-family firms are smaller in size but still of considerable size with an average of 2.5 billion CHF in total assets. Both types of firms can be considered established companies with an average of 71 and 64 years for family and non-family firms respectively.

4. Regression Results

A two-way fixed effect model with dummies for each year and industry under consideration is used to assess the relation between firm performance (Tobin's Q, ROA) on the one side and family control on the other side. The basic form of the regression takes the shape

$$\begin{aligned} \text{Firm performance} = & \beta_0 + \beta_1(\text{family firm}) + \beta_2(\text{control variables}) + \beta_3(\text{year dummy}) \\ & + \beta_4(\text{ICB code dummy}) + \varepsilon \end{aligned} \quad (1)$$

Firm Performance	Tobin's Q or Return on assets with EBIT or EBITDA as numerator
Family firm	dummy that equals one if a company is a family firm and zero otherwise
Control variables	one-year sales growth, investment intensity (capex/PPE), leverage (book value of total debt/common shareholder's equity), return volatility (standard deviation of monthly returns for the preceding 60 months), size (natural logarithm of total assets), age (natural logarithm of firm age)
Year dummy	dummy equals one for each year considered in the analysis
Industry dummy	dummy equals one for each ICB-industry considered in the analysis

Two problems are encountered and removed in the following analysis. Tests show the presence of heteroskedasticity and serial correlation in the data. Robust standard errors to counter these two phenomena are calculated using the Huber-White Sandwich estimator for variance. Secondly, a very restrained number of observations with an abnormally high Tobin's Q

as dependent variable can be considered outliers. As a remedy we take the natural logarithm of Tobin's Q in the following multivariate analysis.⁶

4.1 Family firm performance

Columns 1, 3 and 5 of table 4 provide a first insight into the corporate performance of family firms. The accounting performance measure, both with EBIT and EBITDA as numerator shows evidence of a strong outperformance of family as compared to non-family firms. Tobin's Q is also significantly higher for family firms. All three measures are significant at the 0.05-level. Columns 2, 4 and 6 show evidence that the ROA of family firms in which the family holds at least 50% of outstanding shares, and can thus be considered a majority shareholder, perform better than those in which the family has a stake between 20 and 50%. However, Tobin's Q is lower on average for firms with a family as majority shareholder. This result indicates that companies in which the family has total control work more profitably but that on the contrary the market favours family firms in which the family does not have a majority of the votes.

[Insert Table 4 about here]

The previous analysis suggests that family firms perform better than non-family firms. it remains to be seen if family firms perform better than all other firms irrespective of their ownership structure or if widely-held firms are poor performers and other kinds of blockholders also perform better. To study this question we break down the data of non-family firms into different categories of widely-held, owned by a governmental entity, a widely-held corporation or financial firm or miscellaneous. For family firms, a threshold of 20% is used. Results in table 5 suggest that the ownership type has a different influence on firm performance. The market seems to value family firms highest while all results on other types of blockholders seem to have different impacts but not in a significant way. The accounting performance measure yields different results. ROA with the EBIT as numerator shows that although family firms still seem to be the best performers no blockholder type can differentiate itself from the performance of widely-held companies. Considering ROA with EBITDA as numerator state controlled firms seem to perform best at a 0.1-level while family firms also have a positive impact but not at a

⁶ Other ways of dealing with outliers, as winsorising or discarding data at the 2.5 and 97.5 percentile and cutting off data at the $\mu \pm 4\sigma$ interval, have been implemented and yield similar results. The natural logarithm was chosen as it gave the most conservative estimate.

significant level. The positive results for state-controlled companies show that these companies could be more efficient than commonly thought or it is just a result of a possible bias due to the very small sample of government-controlled firms in the study.⁷ It may also be possible that depreciation and amortization takes a different form in state-controlled companies and thus changes results as only return on assets with EBITDA as numerator yields the above mentioned finding.

[Insert Table 5 about here]

These results stand in some contrast to those found by Andres (2008) on the German market. He finds evidence that family firms significantly outperform widely-held companies considering both market and accounting performance measures. Other blockholder types underperform with regard to accounting performance but not market valuation.

4.2 Family firm performance and active management

Earlier results on family firm performance show that it would be wrong to judge family firms as such without further differentiation. Evidence was found that performance might depend on a variety of other characteristics and here especially on the involvement of family members in the company. Studies on the generation and position a family member takes in the company have yielded different results. Villalonga and Amit (2006) find that family firms with founder-CEO perform better whereas those with descendant-CEO significantly underperform compared to widely-held companies. Barontini and Caprio (2006) show that descendant stage firms only perform well if descendants do not take an active role in the company. On the other side, Favero et al. (2006) find that founders only outperform when market performance measures are used while descendants seem to perform best when accounting performance is analysed. Similarly, Sraer and Thesmar (2007) suggest that descendant-CEO do not perform worse than founder-CEO.

Table 6 shows results for family firms in which either the founder or descendants take an active position in the company as CEO or Chairman or only a passive approach by solely holding shares. The case in which no family member is active in the company yields the worst results. It

⁷ Only 4% of sample firms are government-controlled due to the fact that most government-controlled companies in Switzerland are the Cantonal banks and electricity producers which were taken out of the sample due to valuation problems of financial and utility firms.

seems that mere share holding is no sufficient reason to explain the performance of family firms. The family must actively participate in the management of the company. The market favours active founders more than descendants but both significantly outperform widely-held companies. Concerning accounting performance firms with active descendants are significantly more profitable than widely-held companies. Active founders only yield significantly higher profitability for the case with EBITDA as numerator. It seems that the knowledge of the family in running the company is important. Family members have superior skills and incentives that enhance the value of a firm above the gains that result from a reduction of agency costs from holding shares in their company.

[Insert Table 6 about here]

Table 7 reports more detailed results by not only looking at the above-shown generational distinction but also on the distinction between CEO and Chairman. Evidence suggests that outside CEO work less profitably, be it in comparison to family members or widely-held companies. Descendant CEO, however, show a significantly better market and accounting performance whereas firms with founder CEO do not perform significantly better than widely-held companies.

Analysis of the Chairman position shows evidence that once again outsiders do not perform better than widely-held companies. The market seems to value both founder and descendants as Chairman with a better performance for firms with founder Chairmen. Profitability equally augments with a family member active as Chairman but in this case descendants do better.

[Insert Table 7 about here]

4.3 Family firms with multiple blockholders

It has been established in the previous analyses that family firms outperform non-family firms in most cases depending on different characteristics of the firms that were studied. The results therefore suggest that families indeed add value to companies by reducing agency costs of type I. From the previous results it is, however, not possible to determine if agency costs of type II between the family, as large shareholder, and minority shareholders exist or not. It is possible that they exist but are more than offset by the reduction of the classical agency problems. One way of reducing uncertainty concerning agency costs of type II consists of looking at the other shareholders in a firm. It can be argued that a large shareholder can extract private benefits from

his company if he has enough power in it. This would be equivalent to a rise in agency costs II as the problem shifts to conflicts between large shareholder who work in their interest and minority shareholder who cannot defend themselves easily. An effective way of reducing this problem would be for a company to have a second large shareholder to counterbalance some of the power of the family shareholder and challenge the extraction of private benefits.

Table 8 presents evidence that family firm performance can be enhanced if another, second blockholder holds shares in the company. This blockholder should, however, have a certain size. Too small, the stake will not suffice to counterbalance the family blockholder, too big and power struggles can break out and paralyse the good functioning of the company. This is supported by findings that family firms with no or very small second blockholders owning less than 5% in the company do not perform better than non-family firms. It is equally true for family firms with a second blockholder controlling more than 30% of voting rights. The results show that a second blockholder controlling 5-10% of the firm's voting rights is optimal. This level allows for a good control of the controlling family shareholder without giving the controller too much power to block every decision. Both market and accounting performance measures are significantly higher than for non-family firms.

[Insert Table 8 about here]

5. Robustness Tests

Endogeneity poses one of the potentially biggest problems when looking at family firm performance. One can argue that it is not the ownership structure that yields a better performance of family firms but that on the contrary good performance influences the decision if a company is family-controlled or not. The possibility exists that a family will only stay on as a shareholder or pass on the company if it performs well but sell it if it does not perform adequately.

During the sample period only six companies changed their ownership structure from family firm to non-family firm. In four cases the family owner lowered his stake under the 20% threshold to about 14-16% and kept an active position as CEO, Chairman or even both. In one case the company was bought by a private equity company and in another one the family decided to give up its stake to avoid a control fight with another investor that was trying to take over the company. Thus it cannot be argued that families departed due to poor performance of the company. It is equally significant that family firms have an average age of 71 years and are older than non-family firms. It thus is difficult to believe that families sell their shares in times of poor

firm performance or inversely are able to predict the future in a correct way over such a long period of time. Finally, no other study on family firm performance has found any trace of endogeneity thus far.

To confirm these intuitive reasons we test the endogeneity issue by using an instrumental variable 2SLS regression. We use lagged family ownership variables as instruments for the analysis. Results in table 9 show that after controlling for endogeneity family firms still yield a higher profitability and market value than non-family firms.⁸

[Insert Table 9 about here]

The analysis of family firm performance should effectively reflect the link between the specification and attributes. To verify the robustness of the results obtained in the previous chapter several tests are performed.

The presence of outliers can drive results in the analysis due to the relative smallness of the Swiss market. Several sensitivity tests were conducted as capping and winsorising data at the one, two-and-a-half and five percent level and yielded similar results. Another potential bias can arise from companies that drop out during the sample period. Therefore, we use a balanced sample that comprises 641 firm-year observations or 128 firms.

[Insert Table 10 about here]

Results shown in table 10 reflect a slightly lower but still significant outperformance in both market valuation and profitability of family firms. Considering second blockholders Tobin's Q improves while ROA both EBIT (not shown in the table) and EBITDA as numerator decreases but also stays significantly positive relative to non-family firms.

Table 11 shows a further robustness test in which the accuracy of the accounting performance measured by return on asset is tested by using the return on equity (ROE) as performance variable.

[Insert Table 11 about here]

⁸ Due to space constraints only data for Tobin's Q and ROA (EBIT) is presented in table 9. Results for ROA (EBITDA) as dependent variable are similar to results for ROA (EBIT).

Findings confirm that family firms are more profitable than non-family firms. At the same time family firms outperform companies with other types of blockholders and still perform best if a second blockholder detains 5-10% of share capital.

In a further robustness test on econometric modelling we use pooled (average) regressions instead of fixed effects regressions. Data in table 12 supports the findings that family firms create more value and are more profitable than their non-family counterparts and that a second blockholder in the company is still beneficial in both cases.

[Insert Table 12 about here]

6. Conclusion

According to several studies companies in many countries outside the Anglophone world are not widely-held. A majority of firms in Asia and continental Europe have an ownership structure in which a majority blockholder, more specifically a family, is present. This results in a need of more profound analysis of companies with this type of ownership. Financial theory in general and more specifically agency theory may be different once this phenomenon is taken into account. The classical agency conflict between managers and shareholders may be reduced and firms with a large shareholder are able to create more value due to a reduction of conflicts and agency costs. On the other side another type of agency costs between majority and minority shareholders may emerge. The extraction of private benefits by the majority shareholder can potentially have a value destructing effect on the firm. Several studies have shown that family firms create value and are more profitable than non-family firms which is in favour of the idea that agency costs can be reduced significantly by large shareholders. However, these findings do not mean that majority shareholders fully act in the interest of minority shareholders. There is a possibility that the reduction in agency costs is bigger than costs related to the extraction of private benefits and therefore makes them invisible. The presence of a second large shareholder can alleviate this problem by controlling more closely the largest shareholder. We look at this question as well as at different other family firm characteristics.

The Swiss market provides a perfect setting to take a closer look at this conflicting argument regarding the impact of the presence of family firms. It is a classic continental European market with long-established companies which have a family as blockholder in 52% of the cases. Using panel data on 178 firms for the period 2003-2007 we find that family firms create more value and are more profitable than non-family firms. This result also holds for family firms compared to companies that are not widely held but that have a blockholder that is not a family. It is equally

important that a family member is active in the company as either CEO, Chairman or both. It seems that the factor family is crucial and that family members have some superior knowledge on how to run their company. However, this value-creating knowledge is not confined to the founder but also exists in heir-managed family firms. Finally, we find evidence that a second blockholder who owns between 5 and 10% of voting rights is beneficial to family firms. It would indicate that market participants value the control of family members by a third party.

It would be interesting to examine the second blockholder and his implication more closely in a separate study. It is possible that equally to the fact that families perform better than other blockholders, the second large shareholder identity can have an influence on the results. It seems possible that in certain cases a second blockholder could ally with the largest shareholder and have an even more disastrous effect for minority shareholders.

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Table1**Number and percentage of firm-years for each ICB-code and ownership type.**

Family is defined as families or individuals holding more than 20% of voting rights. A 20% ownership level is also used for the remaining ownership types. Widely held firms do not have any shareholder holding 20% or more of voting rights. The sample contains 772 firm-year observations taken from 178 firms included in the Swiss Performance Index for the period 2003-2007.

ICB Code	Industry Description	All firms	Widely Held	Family Firm	State	Widely Held Corporation	Widely Held Finacial	Misc.	Family firms in industry (%)
530	Oil & Gas Producers	2	2	0	0	0	0	0	0.00
1350	Chemicals	45	32	13	0	0	0	0	28.89
1730	Forestry & Paper	20	10	5	0	0	5	0	25.00
1750	Industrial Metals & Mining	10	3	5	0	0	2	0	50.00
1770	Mining	1	0	0	0	0	0	1	0.00
2350	Construction & Materials	35	13	20	0	0	2	0	57.14
2720	General Industrials	14	4	10	0	0	0	0	71.43
2730	Electronic & Electrical Equipment	56	34	21	0	0	1	0	37.50
2750	Industrial Engineering	143	41	85	0	9	8	0	59.44
2770	Industrial Transportation	20	0	15	5	0	0	0	75.00
2790	Support Services	24	0	14	5	5	0	0	58.33
3350	Automobiles & Parts	5	0	5	0	0	0	0	100.00
3530	Beverages	9	0	9	0	0	0	0	100.00
3570	Food Producers	39	8	12	0	5	0	14	30.77
3720	Household Goods & Home Construction	30	5	25	0	0	0	0	83.33
3740	Leisure Goods	3	0	3	0	0	0	0	100.00
3760	Personal Goods	20	0	20	0	0	0	0	100.00
4530	Health Care Equipment & Services	45	17	28	0	0	0	0	62.22
4570	Pharmaceuticals & Biotechnology	59	38	21	0	0	0	0	35.59
5330	Food & Drug Retailers	11	5	0	0	1	4	1	0.00
5370	General Retailers	28	7	18	0	0	3	0	64.29
5550	Media	30	5	20	5	0	0	0	66.67
5750	Travel & Leisure	40	10	15	3	2	10	0	37.50
6530	Fixed Line Telecommunications	5	0	0	5	0	0	0	0.00
9530	Software & Computer Services	41	13	27	0	0	1	0	65.85
9570	Technology Hardware & Equipment	37	26	7	0	0	4	0	18.92
	Total	772	273	398	23	22	40	16	51.55

Table 2
Descriptive statistics of the sample.

The variables for the analysed sample of 178 firms and 772 firm-year observations includes Tobin's Q, return on assets, one-year sales growth, capital expenditure/PPE, total debt/total equity, return volatility, firm size and age. Family Firm denotes a dummy taking the value 1 if the firm has a family or individual with 20% or more voting rights. Family CEO, Family Chairman, Family CEO-Chairman Duality indicates a dummy equalling 1 if a family member is CEO, Chairman, CEO and Chairman respectively in a family firm. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class. Widely-held denotes firms in which no shareholder has at least 20% of voting rights.

	Mean	Median	Standard Deviation	Maximum	Minimum
Tobin's Q	1.85	1.39	1.36	12.17	0.49
Return on assets (EBIT) (%)	5.52	7.25	15.00	40.56	-178.20
Return on assets (EBITDA) (%)	10.13	11.68	14.65	44.38	-175.88
Family firm	0.52	1.00	0.50	1.00	0.00
Family CEO	0.16	0.00	0.37	1.00	0.00
Family Chairman	0.26	0.00	0.44	1.00	0.00
Family CEO-Chairman Duality	0.09	0.00	0.29	1.00	0.00
Dual-Class shares	0.22	0.00	0.42	1.00	0.00
Widely Held	0.35	0.00	0.48	1.00	0.00
1-year sales growth (%)	34.96	6.45	436.44	10'525.44	-91.83
Capital expenditures / PPE	18.98	14.65	17.97	181.44	0.00
Total debt / shareholder's equity	0.51	0.35	1.40	15.82	-19.22
Return volatility	0.11	0.09	0.06	0.34	0.03
Firm size (total assets in CHF 000'000)	3'253.09	437.60	11'688.66	112'435.00	2.85
Firm age (years)	67.61	51.50	61.18	488.00	1.00

Table 3**Tests of difference of means between family and non-family firms.**

The variables for the analysed sample of 178 firms and 772 firm-year observations include Tobin's Q, return on assets, one-year sales growth, capital/expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. Family CEO, Family Chairman, Family CEO-Chairman Duality indicates a dummy equalling 1 if a family member is CEO, Chairman, CEO and Chairman respectively in a family firm. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Family Firms	Non-Family Firms	t-stat
Tobin's Q	1.86	1.83	0.36
Return on assets (EBIT) (%)	7.08	3.86	2.96***
Return on assets (EBITDA) (%)	11.62	8.54	2.90***
Family CEO	0.31	0.00	14.19***
Family Chairman	0.50	0.00	20.41***
Family CEO-Chairman Duality	0.17	0.00	9.99***
Dual-Class shares	0.38	0.06	12.02***
1-year sales growth (%)	46.08	23.13	0.74
Capital expenditures / PPE	17.30	20.78	2.66**
Total debt / shareholder's equity	0.49	0.54	0.52
Return volatility	0.10	0.11	4.10***
Firm size (total assets in CHF 000'000)	2'473.11	4'083.24	1.89*
Firm age (years)	70.76	64.27	1.45
Firm-year observations	398	374	
Firms	92	86	

Table 4
Firm performance and family ownership

The variables for the analysed sample of 178 firms and 772 firm-year observations include Tobin's Q, return on assets with EBIT and EBITDA as numerator, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. Family firm, family owning 20-50%, family owning 50% or more indicate a dummy equalling 1 if the company is respectively a family firm, has a family owning 20-50% or more than 50% of the stocks. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q		ROA (EBIT)		ROA (EBITDA)	
	1	2	3	4	5	6
Family Firm	0.17** (2.45)		3.09** (1.97)		3.17** (2.08)	
Family owning 20-50%		0.22*** (2.74)		2.38 (1.28)		2.65 (1.48)
Family owning 50% or more		0.12 (1.63)		4.20*** (2.77)		3.37** (2.16)
Dual-Class shares	-0.18** (-2.51)	-0.15** (-2.15)	-2.45* (-1.67)	-3.23** (-2.29)	-3.25** (-2.16)	-3.42** (-2.31)
Ln (total assets)	0.05*** (3.28)	0.05*** (3.25)	2.53*** (4.70)	2.54*** (4.73)	2.31*** (4.36)	2.31*** (4.38)
Ln (firm age)	-0.02 (-0.72)	-0.02 (-0.77)	1.37* (1.79)	1.39* (1.81)	1.46** (2.01)	1.47** (2.01)
One year sales growth	0.00* (1.94)	0.00** (2.27)	0.00 (-1.14)	0.00 (-0.87)	0.00 (-1.56)	0.00 (-1.34)
Capex/PPE	0.01*** (2.90)	0.01*** (2.90)	0.07 (0.80)	0.07 (0.79)	0.05 (0.56)	0.05 (0.54)
Total debt/shareholder's equity	-0.03** (-2.36)	-0.03** (-2.24)	1.19 (1.10)	1.16 (1.10)	1.00 (1.13)	0.99 (1.13)
Return volatility	1.05 (1.48)	1.02 (1.44)	-91.09*** (-3.13)	-89.81*** (-3.06)	-87.96*** (-2.90)	-87.63*** (-2.87)
Intercept	-0.73*** (-2.63)	-0.72*** (-2.61)	-25.81*** (-3.42)	-25.85*** (-3.44)	-19.04*** (-2.62)	-18.84*** (-2.62)
Adjusted R-squared	0.32	0.32	0.24	0.25	0.23	0.23
Number of observations	772	772	772	772	772	772

Table 5**Firm performance and ownership type**

The variables for the analysed sample of 178 firms and 772 firm-year observations include Tobin's Q, return on assets with EBIT and EBITDA as numerator, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. Family firm, state, widely held corporation, widely held financial and miscellaneous indicate a dummy equaling 1 if the largest ultimate shareholder owns more than 20% of the shares in one of the categories. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q	ROA (EBIT)	ROA(EBITDA)
Family Firm	0.16** (2.19)	2.29 (1.31)	2.48 (1.46)
State	-0.11 (-0.67)	2.05 (0.83)	3.98* (1.74)
Widely Held Corporation	0.15 (1.20)	-9.43 (-1.04)	-9.37 (-0.93)
Widely Held Financial	-0.10 (-1.09)	-1.37 (-0.61)	-1.79 (-0.75)
Miscellaneous	-0.01 (-0.03)	-2.65 (-1.04)	-1.84 (-0.73)
Dual-Class shares	-0.19** (-2.55)	-2.44* (-1.71)	-3.22** (-2.20)
Ln (total assets)	0.05*** (3.41)	2.39*** (4.88)	2.17*** (4.61)
Ln (firm age)	-0.02 (-0.69)	1.38* (1.74)	1.53** (2.04)
One year sales growth	0.00** (1.97)	0.00 (-1.21)	0.00* (-1.67)
Capex/PPE	0.01*** (2.69)	0.09 (1.03)	0.07 (0.78)
Total debt/shareholder's equity	-0.03** (-2.34)	1.23 (1.13)	1.03 (1.14)
Return volatility	0.98 (1.43)	-88.19*** (-3.51)	-84.31*** (-3.24)
Intercept	-0.76*** (-2.71)	-24.12*** (-3.12)	-17.54** (-2.37)
Adjusted R-squared	0.32	0.25	0.24
Number of observations	772	772	772

Table 6**Family firm performance and active management of family members**

The variables for the analysed sample of 178 firms and 772 firm-year observations include Tobin's Q, return on assets with EBIT and EBITDA as numerator, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. Founder active and descendant active indicate a dummy equalling 1 if the founder or a descendant is actively managing the company as CEO or Chairman. Passive owner indicates that the family only holds shares in the company without taking an active position in it. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q	ROA (EBIT)	ROA (EBITDA)
Founder active	0.22** (2.43)	3.85 (1.46)	4.81* (1.91)
Descendant active	0.15** (2.48)	2.95** (2.41)	2.44** (2.01)
Passive owner	0.09 (1.28)	0.36 (0.23)	0.06 (0.04)
Dual-Class shares	-0.20*** (-2.89)	-2.30 (-1.56)	-3.04** (-2.05)
Ln (total assets)	0.05*** (3.56)	2.53*** (4.65)	2.31*** (4.32)
Ln (firm age)	-0.01 (-0.19)	1.63** (2.11)	1.88** (2.45)
One year sales growth	0.00** (2.36)	0.00 (-0.82)	0.00 (-1.13)
Capex/PPE	0.01*** (2.85)	0.07 (0.77)	0.05 (0.53)
Total debt/common shareholder's equity	-0.03** (-2.40)	1.20 (1.10)	1.02 (1.13)
Return volatility	1.00 (1.39)	-94.25*** (-3.20)	-91.84*** (-3.01)
Intercept	-0.76*** (-2.94)	-25.87*** (-3.43)	-19.45*** (-2.65)
Adjusted R-squared	0.32	0.24	0.23
Number of observations	772	772	772

Table 7**Family firm performance and active management**

The variables for the analysed sample of 178 firms and 772 firm-year observations include Tobin's Q, return on assets with EBIT and EBITDA as numerator, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. Founder CEO, descendant CEO and Outsider CEO indicate a dummy equalling 1 if respectively the founder, a descendant or an outsider holds the CEO position in the family firm. The same is applied for founder, descendant and outsider Chairman. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q		ROA (EBIT)		ROA (EBITDA)	
	1	2	3	4	5	6
Founder CEO	0.12 (1.07)		0.09 (0.02)		2.16 (0.62)	
Descendant CEO	0.13 (1.57)		3.34** (2.51)		3.19** (2.23)	
Outsider CEO	0.06 (0.43)		-2.42 (-1.48)		-2.31 (-1.30)	
Founder Chairman		0.24** (2.55)		3.33 (1.11)		4.50* (1.68)
Descendant Chairman		0.17* (2.06)		3.33** (2.11)		2.92* (1.89)
Outsider Chairman		0.15* (1.76)		3.07* (1.76)		2.72 (1.51)
Dual-Class shares	-0.12* (-1.94)	-0.19** (-2.56)	-1.08 (-0.87)	-2.51* (-1.72)	-1.97 (-1.57)	-3.33** (-2.25)
Ln (total assets)	0.05*** (3.21)	0.05*** (3.29)	2.50*** (4.60)	2.52*** (4.68)	2.30*** (4.28)	2.29*** (4.35)
Ln (firm age)	-0.01 (-0.49)	-0.01 (-0.50)	1.43* (1.93)	1.38* (1.80)	1.64** (2.24)	1.59** (2.08)
One year sales growth	0.00** (2.54)	0.00** (2.02)	0.00 (-0.83)	0.00 (-1.08)	0.00 (-1.19)	0.00 (-1.41)
Capex/PPE	0.01*** (2.74)	0.01*** (2.92)	0.07 (0.77)	0.07 (0.80)	0.05 (0.53)	0.05 (0.57)
Total debt/shareholder's equity	-0.03** (-2.39)	-0.03** (-2.37)	1.16 (1.10)	1.20 (1.12)	0.99 (1.13)	1.02 (1.14)
Return volatility	0.86 (1.20)	0.97 (1.36)	-96.89*** (-3.19)	-92.45*** (-3.13)	-94.14*** (-2.99)	-89.96*** (-2.93)
Intercept	-0.67** (-2.51)	-0.71*** (-2.63)	-24.44*** (-3.36)	-25.46*** (-3.39)	-18.26** (-2.57)	-18.75*** (-2.58)
Adjusted R-squared	0.30	0.32	0.24	0.24	0.23	0.23
Number of observations	772	772	772	772	772	772

Table 8**Family firm performance and multiple blockholders**

The variables for the analysed sample of 178 firms and 772 firm-year observations include Tobin's Q, return on assets with EBIT and EBITDA as numerator, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. The different second blockholder variables indicate a dummy equalling 1 if a second large blockholder exists in a family firm and controls voting rights in one of the given intervals. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q	ROA (EBIT)	ROA (EBITDA)
Second Blockholder 5% or less	0.09 (1.37)	1.00 (0.49)	1.21 (0.68)
Second Blockholder 5-10%	0.24*** (2.91)	5.12*** (2.90)	5.24*** (2.95)
Second Blockholder 10-20%	0.20 (1.59)	3.70* (1.68)	3.51 (1.51)
Second Blockholder 20-30%	0.08 (0.77)	1.50 (0.89)	1.45 (0.98)
Second Blockholder 30% or more	0.13 (0.76)	-4.42 (-0.84)	-2.75 (-0.55)
Dual-Class shares	-0.14** (-2.24)	-1.28 (-0.83)	-2.18 (-1.46)
Ln (total assets)	0.05*** (3.06)	2.56*** (4.51)	2.32*** (4.16)
Ln (firm age)	-0.02 (-0.81)	1.36* (1.79)	1.45** (2.00)
One year sales growth	0.00** (2.07)	0.00 (-1.10)	0.00 (-1.59)
Capex/PPE	0.01*** (2.93)	0.08 (0.82)	0.05 (0.57)
Total debt/common shareholder's equity	-0.03** (-2.15)	1.24 (1.16)	1.05 (1.21)
Return volatility	0.99 (1.42)	-92.18*** (-3.17)	-89.09*** (-2.94)
Intercept	-0.68** (-2.31)	-25.74*** (-3.29)	-18.72** (-2.48)
Adjusted R-squared	0.32	0.25	0.24
Number of observations	772	772	772

Table 9**2 SLS Instrumental Variable regression of performance on family ownership**

The table shows results for 2 SLS Instrumental Variable regressions of family characteristics on Tobin's Q and ROA (EBIT). The analysed sample consists of 619 firm-year observations. Family firm, family owning 20-50%, family owning 50% or more indicate a dummy equalling 1 if the company is respectively a family firm, has a family owning 20-50% or more than 50% of the stocks. Founder CEO, descendant CEO and Outsider CEO indicate a dummy equalling 1 if respectively the founder, a descendant or an outsider holds the CEO position in the family firm. The same is applied for founder, descendant and outsider Chairman. All usual control variables, dummies for industries and years and robust standard errors are used in the regression.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q					ROA(EBIT)		
	1	2	3	4	5	6	7	8
Family firm	0.19*** (4.06)				2.42* (4.06)			
Family owning 20-50%		0.20*** (3.50)				2.48 (3.50)		
Family owning 50% or more		0.12** (2.15)				3.23** (2.15)		
Founder CEO			0.13 (1.28)				0.33 (0.09)	
Descendant CEO			0.16*** (2.59)				2.90*** (2.59)	
Outsider CEO			0.00 (0.00)				-5.09*** (0.00)	
Founder Chairman				0.28*** (3.52)				2.95 (3.52)
Descendant Chairman				0.17*** (3.11)				3.15*** (3.11)
Outsider Chairman				0.17*** (3.22)				2.47* (3.22)
Adjusted R-squared	0.28	0.28	0.27	0.28	0.25	0.25	0.25	0.25
Number of observations	619	619	619	619	619	619	619	619

Table 10**Family firm performance in a balanced sample of 128 companies**

The variables for the analysis of balanced panel data of 128 firms and 640 firm-year observations include Tobin's Q, return on assets with EBIT and EBITDA as numerator, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. The different second blockholder variables indicate a dummy equalling 1 if a second large blockholder exists in a family firm and controls voting rights in one of the given intervals. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q		ROA (EBITDA)	
	1	2	3	4
Family firm	0.18** (2.35)		2.44* (1.76)	
Second Blockholder 5% or less		0.05 (0.73)		1.19 (0.98)
Second Blockholder 5-10%		0.28*** (3.12)		4.13** (2.50)
Second Blockholder 10-20%		0.25* (1.66)		2.07 (0.88)
Second Blockholder 20-30%		0.08 (0.82)		0.75 (0.50)
Second Blockholder 30% or more		0.18 (0.86)		4.06 (1.09)
Dual-Class shares	-0.21*** (-2.63)	-0.16** (-2.28)	-3.04** (-2.31)	-2.64** (-2.20)
Ln (total assets)	0.06*** (3.20)	0.05*** (2.95)	1.35*** (3.48)	1.29*** (3.25)
Ln (firm age)	-0.03 (-0.78)	-0.03 (-0.89)	0.39 (0.62)	0.36 (0.56)
One year sales growth	0.00** (2.15)	0.00** (2.27)	0.00 (0.05)	0.00 (0.07)
Capex/PPE	0.01** (2.08)	0.01** (2.15)	0.13* (1.83)	0.13* (1.85)
Total debt/common shareholder's equity	-0.02* (-1.77)	-0.02 (-1.46)	-0.16 (-0.64)	-0.11 (-0.43)
Return volatility	0.65 (0.74)	0.45 (0.51)	-49.71** (-2.50)	-51.87** (-2.57)
Intercept	-0.77** (-2.56)	-0.67** (-2.07)	-6.29 (-1.06)	-4.91 (-0.79)
Adjusted R-squared	0.29	0.31	0.17	0.18
Number of observations	640	640	640	640

Table 11
Family firm performance

The variables for the analysed sample of 178 firms and 772 firm-year observations include return on equity, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. The different second blockholder variables indicate a dummy equalling 1 if a second large blockholder exists in a family firm and controls voting rights in one of the given intervals. Family firm, state, widely held corporation, widely held financial and miscellaneous indicate a dummy equalling 1 if the largest ultimate shareholder owns more than 20% of the shares in one of the categories. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	ROE		
Family Firm	5.69** (2.28)		5.07* (1.88)
Second Blockholder 5% or less		4.09 (1.33)	
Second Blockholder 5-10%		8.20** (2.57)	
Second Blockholder 10-20%		5.86* (1.84)	
Second Blockholder 20-30%		0.81 (0.23)	
Second Blockholder 30% or more		-7.25 (-1.07)	
State			3.29 (0.64)
Widely Held Corporation			-7.56 (-0.80)
Widely Held Financial			-2.58 (-0.68)
Miscellaneous			-1.10 (-0.33)
Dual-Class shares	-2.21 (-0.90)	-1.09 (-0.43)	-2.22 (-0.91)
Ln (total assets)	4.00*** (6.08)	4.05*** (5.94)	3.89*** (6.11)
Ln (firm age)	1.89 (1.63)	1.96* (1.69)	1.98* (1.68)
One year sales growth	0.00*** (-3.27)	0.00*** (-3.06)	0.00*** (-3.27)
Capex/PPE	0.15 (1.16)	0.15 (1.17)	0.16 (1.27)
Total debt/shareholder's equity	5.78* (1.92)	5.83** (1.97)	5.89* (1.93)
Return volatility	-63.29** (-1.99)	-65.15** (-2.05)	-62.04** (-1.99)
Intercept	-59.08*** (-5.14)	-59.62*** (-5.18)	-57.71*** (-5.03)
Adjusted R-squared	0.21	0.21	0.21
Number of observations	772	772	772

Table 12**Pooled (average) regression on family firm performance**

The variables for the pooled regression analysis of unbalanced panel data of 178 firms and 772 firm-year observations include Tobin's Q, return on assets with EBIT and EBITDA as numerator, one-year sales growth, capital expenditure/PPE, total debt/shareholder's equity, return volatility, firm size and age. The different second blockholder variables indicate a dummy equalling 1 if a second large blockholder exists in a family firm and controls voting rights in one of the given intervals. Dual-Class shares designates a dummy with the value 1 if a company has more than one share class.

***, **, * shows significance at the 1%, 5%, 10% level respectively.

	Tobin's Q		ROA (EBITDA)	
	1	2	3	4
Family Firm	0.16** (2.59)		2.82* (1.89)	
Second Blockholder 5% or less		0.08 (1.40)		0.89 (0.52)
Second Blockholder 5-10%		0.23*** (3.01)		4.91*** (2.76)
Second Blockholder 10-20%		0.20* (1.69)		3.18 (1.40)
Second Blockholder 20-30%		0.08 (0.83)		0.70 (0.43)
Second Blockholder 30% or more		0.12 (0.78)		-2.90 (-0.67)
Dual-Class shares	-0.18*** (-2.69)	-0.14** (-2.33)	-3.13** (-2.16)	-2.08 (-1.44)
Ln (total assets)	0.05*** (3.65)	0.05*** (3.43)	2.25*** (4.87)	2.25*** (4.66)
Ln (firm age)	-0.02 (-0.74)	-0.02 (-0.84)	1.42** (2.18)	1.40** (2.17)
One year sales growth	0.00* (1.94)	0.00** (2.06)	0.00 (-1.46)	0.00 (-1.46)
Capex/PPE	0.01*** (3.09)	0.01*** (3.11)	0.06 (0.74)	0.06 (0.76)
Total debt/common shareholder's equity	-0.03*** (-2.90)	-0.03** (-2.53)	1.08 (1.18)	1.14 (1.26)
Return volatility	0.98 (1.46)	0.93 (1.40)	-93.75*** (-3.88)	-94.99*** (-3.90)
Intercept	-0.36 (-1.50)	-0.32 (-1.27)	-18.82*** (-2.69)	-18.67** (-2.58)
Adjusted R-squared	0.34	0.35	0.27	0.28
Number of observations	772	772	772	772