Long term family ownership of publicly listed firms

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Abstract

We study the performance of family firms with large controlling owners using unique hand-collected Swedish data; and consistent with previous studies, we find that founding family firms perform significantly better than other firms. The data allows us to also identify firms with long term non-founding owners (LTNFOs). Because of their long term involvement these owners have similar monitoring abilities. We also find that they use control enhancing mechanisms to a similar extent. However, firms dominated by LTNFOs perform considerably worse. Founders are somewhat more involved in operations and the involvement has a positive association with operating performance. For firms with LTNFOs, the involvement effect is none or negative. The analysis shows that ownership is more important than involvement: The effect is positive for founding family firms, and negative for firms with LTNFOs. In sum, the results challenge the claim that information-advantages and superior monitoring abilities lead to the excess performance of founding family firms.

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1. Introduction

Many publicly listed firms are owned and controlled by families that have a long term perspective on business decisions. Indeed, many of them have been and plan to be owners for many generations. Research on family owners of publicly listed firms usually target families that founded the business (hereafter: *founding family firms*) and document that these firms have higher return on assets (*ROA*) and Tobin's Q (*TQ*) than other firms (e.g., Anderson & Reeb, 2003; Villalonga & Amit, 2006; Barontini & Caprio, 2006; Hamberg *et al.*, 2013; Isakov & Weisskopf, 2014). Founders have unique insights in business operations and often an ability to influence corporate decisions. It is thus typically believed that the net effect of founders' close relation to the firm is positive. That is, founding family ownership also benefit other owners (e.g. Anderson & Reeb, 2003). But are founders different from other long term oriented family owners? To further understand the role of monitoring ability, we compare founding family firms with long term non-founding family firms.

It is quite likely that a founding family owner and a long term non-founding family owner (LTNFO) have similar abilities to monitor management. For example, the Wallenberg family in Sweden did not found ABB, Electrolux, Ericsson, Husqvarna, SKF and Saab but the family has owned and controlled each firm for more than half a century. In addition to their monitoring abilities, it is plausible that these professional LTNFOs are better owners because they are more experienced and they have better access to management expertise and capital. To the best of our understanding, similarities and differences between long term family firms has not been given much attention in a literature that typically targets family firms in general (e.g. Maury, 2006; Croci *et al.*, 2011) or founding family firms in specific (e.g. Anderson & Reeb, 2003; Barontini & Caprio, 2006).

Broadly speaking, we examine the associations among family ownership, involvement and performance in a sample of publicly listed Swedish family firms. The Swedish institutional context benefits the analysis in two ways. First, Sweden is known for having a number of professional LTNFOs (Doukas *et al.*, 2002). These families often use control-enhancing mechanisms (CEMs), such as dual-class shares and pyramid ownership structures, to increase the separation of ownership and control (Cronqvist & Nilsson, 2003; Holmen & Knopf, 2004). Cross-country studies reveal that Sweden has the highest proportion of firms with dual-class shares and pyramid structures and the second-highest level of cross-ownership (Institutional Shareholder Services, 2007). In short, CEMs increase control but also the risk for an expropriation of minority shareholders.

Second, Swedish firms are known for being transparent – a known value driver for founding family firms (Anderson *et al.*, 2009). Previous research has documented less earnings management (Leuz *et al.*, 2003) and more informative annual reports (Reportwatch, 2014) among Swedish publicly listed firms. But in particular, Swedish ownership structures are exceptionally transparent due to the annual booklet *Owners & Power of Swedish Corporations* (Sundqvist, 1985-2009) in which the complex ownership structures of Swedish firms are simplified and ultimate owners are reliably identified. This allows us to reliably identify and follow ultimate owners over time.

Initially, we study all non-financial firms domiciled in Sweden and listed on the Stockholm stock exchange in the years 2001 to 2010. For these 2,005 firm-year observations, we hand-collect detailed data on owner type and concentration, control enhancing mechanisms and family involvement. In a second step, we analyze differences between family firms and test how *TQ* and *ROA* are affected by owner type, control and involvement. In comparison to other single-country studies, we have a large sample of firms owned and controlled by founders or professional LTNFOs.

The empirical analysis shows that family firms do not perform better than non-family firms. There are, however, large variations between family firms. Founding family ownership has positive associations with both the *TQ* and the *ROA*. These relationships are similar to those documented by Anderson & Reeb (2003) and Villalonga & Amit (2006) and they seem to be stronger than the relationships reported by, e.g., Isakov & Weisskopf (2014). Importantly, we find that the *ROA* and the *TQ* are significantly lower for firms with LTNFOs. This result strengthens the notion that founding family firms are different from other firms.

There are some distinct differences between founding and long term non-founding family firms. Long term non-founding family firms are slightly larger and older than founding family firms. Dual-class shares are frequently used by both types of long term family owners: in 68% of the founding family firms and in 59% of the LTNFO firms. However, firms with LTNFO also use pyramid ownership structures to enhance control (34%, as compared to 11% in founding family firms). Typically, these ultimate owners establish pyramids through publicly listed investment companies. Overall, we interpret the results as if CEMs are not associated with performance.

Next, we examine the roles that long term family owners have in their firms. In comparison with the LTNFOs, a founder is more likely to actively be engaged as the CEO (30% relative to 6%) but less likely to be engaged as Chairman of the board (27% relative to 36%). Founding family firms perform better than other family firms and this difference is stronger when the founder acts as the CEO and as a board member. For firms with LTNFOs, board involvement has no or a negative effect on performance. In large, these relationships hold when we control for ownership. The level of ownership has a positive incremental effect on both the *TQ* and the *ROA* for founding family firms, and a negative incremental effect on *TQ* for long term non-founding family firms.

In summary, we find that the two different forms of long term family ownership have distinctively different relations to performance. This is puzzling when considering that the main rationalization as to why founding family firms perform better is based on agency theory. It is hard to believe that a founding family is in a considerably better position to monitor and incentivize management than a non-founding family that has been the owner for decades. Given that the superior performance of founding family firms in our sample is driven by firms managed by descendants of the founder, we find this particularly hard to believe. As a consequence, it seems relevant to study investment and financing decisions of founding family firms, and to use LTNFOs as an important benchmark in these studies.

The remainder of this paper is structured as follows. The second section contains the research hypotheses embedded in a theoretical discussion regarding the relationships among family ownership, involvement and performance. The third section outlines the research methodology, in which we particularly stress the procedures for our manual data collection on long term family ownership and involvement. The empirical analyses are presented in section four, and the fifth section concludes the analysis.

2. Literature Review and Hypothesis Development

At the time of their inception, most firms are owned and controlled by the same individuals. But as time passes, some of these founders sell their ownership to others and they hire professional managers to control corporate resources. When this happens, information asymmetries give rise to complex relationships between corporate ownership and control (Jensen & Meckling, 1976; Shleifer & Vishny, 1986; 1997). According to agency theory, corporate ownership has two main effects on the creation of value in publicly listed firms (Claessens *et al.*, 2002). According to the incentive-alignment hypothesis, large owners have

better incentives to monitor and ensure that decisions within a firm are not detrimental to firm value. Thus, active corporate ownership has a positive effect on shareholder value. However, according to the entrenchment hypothesis, large owners are influential, but they might make decisions that do not maximize the interests of other shareholders. Thus, firm value is negatively affected by a concentration of ownership (Ibid). In essence, these two hypotheses suggest a non-linear relationship in which ownership concentration initially aligns the incentives of managers and owners, but as ownership increases, the entrenchment effect has a negative effect on value (Stultz, 1988; Shleifer & Vishny, 1997; Claessens *et al.*, 2002).

The issue of whether ownership has a positive effect on performance is frequently debated. Although some studies suggest that corporate performance is not affected by ownership (e.g. Demsetz & Villalonga, 2001), other studies suggest that performance increases with a concentration of ownership (McConnel & Servaes, 1990). There is also discussion of whether owner type affects the relationship between ownership concentration and performance. Several studies find that active ownership; by families, private equity firms and management, positively affect the creation of value (e.g., Maury, 2006; Florackis *et al.*, 2009).

The discussion on how ownership concentration relates to firm value is, in several respects, similar to the discussion on how founding family ownership relates to firm value. Consequently, research on publicly listed founding family firms derives its expectations from the principal-agent theory, and it investigates how founders affect the asymmetric distribution of information between management and owners in a publicly listed firm (e.g., Anderson & Reeb, 2003; Villalonga & Amit, 2006). Founders are likely to possess qualities that align management's incentives and thus reduce agency costs. In particular, a founder is respected by employees and knows the organization and the business better than most others. This advantage gives the founder outstanding monitoring abilities (Demsetz & Lehn, 1985). In addition, the founder might be better motivated to monitor management, given that he has

invested capital as well as time, energy and labor (Arthurs & Busenitz, 2003). Finally, the founder often acts as a manager, and thus, the manager-owner agency conflict decreases with managerial ownership.

There are good reasons to believe that there is a considerable entrenchment effect in founding family firms because founders are likely to be (i) more emotionally entrenched and (ii) more capable to use their superior knowledge and control of the business opportunistically (Villalonga & Amit, 2006). Entrenched founders might intentionally make decisions that maximize their personal benefits on behalf of non-controlling owners. For example, founders might intentionally choose to tunnel income to a privately owned firm or hire a family member instead of the most competent professional. However, entrenched founders might also make unintentional decisions that reduce shareholder value. For example, founders might invest in pet projects because they believe in them, but they may not realize that the investments carry negative net present values.

For founding family firms, empirical research suggests that the incentive-alignment effect dominates the entrenchment effect (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Anderson et al., 2009). Maury (2006) finds that European family-controlled firms (but not necessarily founding family firms) have a higher *TQ* and *ROA* than other firms. Barontini & Caprio (2006) analyze founding family firms from eleven European countries and find that *TQ* and *ROA* are significantly higher for founding family firms. Their analysis concerns large European firms, and given that more than 80% of the founding family firms are controlled by descendants,[1] these firms seem to be rather old firms. Hamberg *et al.* (2013) finds similar positive associations between founding family ownership and performance in a study of Swedish firms. In a recently published study, Isakov & Weisskopf (2014) find a positive

[1] This proportion seems to be much higher than it is in any other study in the field.

association between founding family ownership and *ROA* but no association between founding family ownership and *TQ* among Swiss firms.

Previous research compares firms with founding family owners or alternatively family owners with other firms. This is understandable given the unique nature of (founding) family firms, but it ignores the fact that founders are not the only type of family owner. In particular, the study by Hamberg *et al.* (2013) utilizes detailed data on founding family ownership, but it does not explore the well-known and unique features of Swedish ownership structures and corporate governance mechanisms.

The main argument for why founding family firms perform better than other firms is that their owners have better monitoring capabilities than other firms (Anderson & Reeb, 2003; Hamberg *et al.*, 2013; Isakov & Weisskopf, 2014). Although this is true, there are non-founding owners that might have equal capabilities. Over time, any shareholder who actively participates in corporate decision-making is likely to accumulate knowledge of the firm's resources and activities. In Sweden, there are quite many such owners. For example, the Wallenberg family did not found ABB, Electrolux, Ericsson, Husqvarna, SKF and Saab, but it has been the largest owner of these companies for more than half a century.

Furthermore, monitoring capabilities and insider information are likely to increase with the use of control enhancing mechanisms (CEMs) such as dual-class shares with different voting rights, pyramids and cross-ownership. According to a European survey, Swedish firms use these CEMs more than firms in any other country (Institutional Shareholder Services, 2007). CEMs increase an owner's ability to exercise control and align managerial incentives, but they also increase the risk of entrenchment. In Sweden, the Wallenberg family uses a holding company – Investor – to control other firms. Differentiated voting rights are used in in both Investor and Electrolux, and therefore the Wallenberg family controls 30% of the voting

rights in Electrolux (more than the combined ownership of next 50 largest owners) with as little as 4% of the equity capital. The unique Swedish governance context has been subject to extant research. Despite the combined use of dual-class shares and pyramid ownership structures, empirical evidence does not suggest an expropriation of minority shareholders (e.g. Doukas *et al.*, 2002; Holmén & Knopf, 2004).

Compared with founding family firm owners, LTNFOs have better financing abilities, equal monitoring abilities but perhaps also weaker entrepreneurial abilities. Though there are a few empirical studies of the differences between long-term family owners (e.g. Andres, 2008), little is known about differences in performance. We test two hypotheses, stated in their null forms, but we stress that the ambiguous nature of the problem requires two-sided tests:

H1: Firms with founding family owners perform similar to other family firms.

H2: Firms with long term non-founding family owners perform similar to other family firms.

If firms with long term owners perform differently than other family firms, the question is why they do. Similar to Chua et al. (1999) and most of the finance literature, we assume that an owner has to have an official role in the firm to be a valuable resource. The effect of involvement depends on the joint effects of incentive-alignment and entrenchment. That is, when an owner influences decision-making, both the ability to align interests and the risk of entrenchment increases. Empirical research indicates that firms in which a founder-entrepreneur is involved in the business performs better than other firms (Villalonga & Amit, 2006; He, 2008; Adams *et al.*, 2009). Additional studies based on US data suggest that value deteriorates following heir succession (Pérez-Gonzalez, 2006; Bennedsen *et al.*, 2007) and that individual founder-entrepreneurs create comparatively more value (Miller *et al.*, 2007). These findings suggest that the incentive-alignment effect dominates the entrenchment effect.

The results are, however, inconclusive. Anderson *et al.* (2009) do not find similar relationships when they control for the level of ownership and corporate opacity. Barontini & Caprio (2006) and Sraer & Thesmar (2007) do not find that founder-descendants perform worse, and Isakov & Weisskopf (2014) only find weak evidence of a relationship between founder involvement and the *TQ*. When the analysis is stretched beyond publicly listed firms – for which the agency conflict is likely to be the largest – founder involvement seems to have a weak relationship with performance. O'Boyle *et al.* (2012) survey the literature and conclude from a meta-analysis based on 78 research studies that there is no relationship.

To the best of our understanding, there are no studies of how the involvement of LTNFOs affects corporate performance. For this reason, we form hypotheses based on research on founding family firms. We test two hypotheses, stated in their null form, on the relationship between performance and involvement among family firms. Again, we emphasize that the ambiguous nature of the problem requires two-sided tests.

H3: Involvement by a founding family owner has no effect on performance.

H4: Involvement by a long term non-founding family has no effect on performance.

3. Research Methods

3.1 The sample

To test the hypotheses, we employ data on firms listed on the Stockholm stock exchange in Sweden. This setting benefits the analysis in two ways. First, it is well documented that Swedish firms are often controlled by long term oriented family owners; such as for example, the Wallenberg family who has owned and controlled publicly listed firms for five

generations.[2] In the examined time period, the Wallenberg family has had interests in 15 firms on the Stockholm stock exchange, but only three of these firms were founded by the family. In comparison to other countries, more Swedish firms are owned and governed with the help of control enhancing mechanisms (Institutional Shareholder Services, 2007). In the sample, more than half of the family firms use dual-class shares and almost one fifth are owned through a pyramid ownership structure.

The Swedish corporate environment is also known to be transparent. For example, accounting numbers are of high quality (Leuz *et al.*, 2003), and annual reports are more informative than in other countries (La Porta *et al.*, 1999; Reportwatch, 2014). To our study, it is particularly important that ownership structures of Swedish public firms are exceptionally transparent. The annual booklet *Owners & Power of Swedish Corporations* (Sundqvist, 1985-2009) simplifies complex Swedish ownership structures and identifies the ultimate owner of all firms. Corporate opacity is an important driver of value creation in founding family firms (Anderson *et al.*, 2009) and Swedish ownership registers provides reliable measures of ownership at low levels.

Table 1 contains information on the sample. Between 2001 and 2010, 375 firms were registered at the Stockholm stock exchange (2,671 firm-year observations). We exclude financially oriented firms (358 firm-years), firms not domiciled in Sweden (134 firm-years), firms with sales of less than SEK 25mn (128 firm-years) and firms with negative equity (6 firm-years). We trim the remaining sample on the basis of performance measures (40 firm-years). As shown in Panel A of Table 1, this procedure reduces the sample to 2,005 firm-year observations.

[2] The unique Swedish ownership context has been documented in several previous studies. See e.g. LaPorta *et al.* (1999), Doukas *et al.* (2002), Faccio & Lang (2002), Holmén & Knopf (2003) and Cronqvist & Nilsson (2003).

[Insert Table 1 about here]

For each firm and in each year, we identify the largest ultimate owner and its percentage of voting rights. This information is mainly taken from the booklet *Owners & Power in Swedish Corporations*[3] and occasionally complemented with statistics from annual reports. We classify the largest ultimate owner of each firm-year as: (i) family owners, (ii) industrial owners[4], (iii) financial owners[5], and (iv) other owners. Table 2 presents the definitions of these categories. Panel B of Table 1 shows that a family is the largest ultimate owner in 71.4% of the observations (1,431 firm-year observations). Most of our research models target differences within the sample of family firms.

3.2 Measures of family ownership and involvement

To test the research hypotheses, we collect information on family owner types. Information on long term family owners is not available in databases and has to be manually collected from annual reports and corporate websites. On a few occasions, we obtain information directly from company representatives. Of the 375 firms in the original sample, we identify founders for 269 firms. The main reasons for not having a founder include that the firm (i) was spun off from another firm, (ii) was the result of a merger between several firms, or (iii) was so old

[3] Between 1985 and 2009, these statistics are compiled by Sven-Ivan Sundqvist and published annually (Sundin and Sundqvist, 2001, 2002; Fristedt, Sundin and Sundqvist, 2003; and Fristedt and Sundqvist, 2004, 2005, 2006, 2007, 2008, 2009). Since January 2009, the statistics have been available in an electronic format only.
[4] When a non-investment firm is the largest owner; and in turn, its ultimate owner controls fewer than 30% of the voting rights in the non-investment firm, the owner is classified as an *industrial owner*.
[5] We classify owners working with the purpose to invest other people's capital (e.g. mutual funds, hedge funds and private equity funds) as *financial owners*.

that a founder was not able to be traced.[6] Awkwardly, no firm was founded by a woman alone.

Family firms are divided into subcategories based on the largest ultimate owner: (i) founder-entrepreneur family owners, (ii) founder-descendant family owners, (iii) long term non-founding family owners (LTNFOs), and (iv) other family owners. For the first two subcategories, we follow the procedures described above. For non-founding family owners, we define an LTNFO as an owner that has been the largest ultimate owner for more than five consecutive years. Because our sample stretches from 2001 to 2010, we manually collect ownership statistics from 1996 onward (from the *Owners & Power* booklets and annual reports).

The first three types of family owners have established relationships with the firm and, as we see it, they have similar abilities to monitor the firm and its management. In the empirical analyses, we compare firms where the largest owner is a founder with firms where the largest owner is an LTNFO. Panel C of Table 1 shows that 33.2% of the family firm-year observations pertain to the founder-entrepreneur family owner category, 15.0% pertain to the founder-descendant family owner category, 30.3% pertain to the LTNFO category, and 21.5% are other family owners. Among the 293 firms included in the sample, 37.2% had a founder as the largest ultimate owner in at least one of the studied years. Similarly, 32.4% of the firms had a long term non-founding family owner as the largest ultimate owner in at least one of the studied years.

[6] A list with firms that are the result of mergers includes Nordea, Swedbank, TeliaSonera, TietoEnator, ABB, and AstraZeneca. Spin-offs include, e.g., Swedish Match, Husqvarna, Holmen, Eniro, Active Biotech, Rezidor, Niscayah and Loomis. Furthermore, several firms, such as Rottneros, StoraEnso, Gunnebo and Höganäs, are several hundred years old, and no founder can be traced. The oldest founding family firm in the sample is Skandinaviska Enskilda Banken, founded by the Wallenberg family in 1856.

3.3 Regression model specifications

Following other studies in the field (e.g., Villalonga & Amit, 2006; Anderson *et al.*, 2009), we use pooled ordinary least squares estimations.[7] A typical problem in this type of research setting is a high inter-temporal stability in the independent variables. In particular, ownership structure and family involvement tend not to vary between years. To address the serial correlation in the independent variables and in the residuals,[8] we use standard errors clustered on the firms in all regressions. We also use industry- and year-fixed effects, and we control for heteroskedasticity by using the Hubert-White estimator for standard errors. In essence, we follow the procedures used in most previous studies of founding family firms.

The empirical analysis relies on three types of alternative model specifications. The first type can be generalized as follows:

Value/Performance = Family ownership + Control variables (Model 1)

In these analyses, we examine the extent to which there are cross-sectional differences in performance among firms with different ownership structures. As a result of this examination, we distinguish between family and non-family ownership, between long term and short term family ownership, and between founding family ownership and long term non-founding family ownership. Some initial analyses are performed on the entire sample (n=2,005), but the main tests are performed within the group of family firms (n=1,431).

[Insert Table 2 about here]

[7] First, our explanatory variables of interest have very little variation from year to year within each firm. This lack of variation disqualifies one of the more commonly used panel estimators, namely, the fixed-effects estimator. Second, pooled OLS regressions rely on weaker assumptions (contemporaneous exogeneity as opposed to strict exogeneity) than the random-effects estimator. Although the latter is more efficient (i.e., the estimates have smaller standard errors in general), it is likely to be inconsistent.

[8] A correlation between years for the same firm, i.e., serial correlation, would invalidate the standard errors.

In the analysis, we use two commonly used performance measures; Tobin's Q and ROA, defined in Table 2. Tobin's Q is a forward-oriented measure that reflects the market value of a firm's assets. Similar to e.g. Isakov and Weisskopf (2014), we define the measure as market value of equity plus book value of total liabilities, 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. We approximate the price of non-tradable shares using the price of traded shares. The return on assets (ROA) is a backward-oriented accounting measure of performance. It is defined as the operating profit divided by average total assets.

In all regression models, we employ four firm-specific control variables: *Size*, *Age*, *Intangible asset intensity* and *Risk* (c.f. Anderson & Reeb, 2003). In most of the models, *Risk* and *Intangible asset intensity* are associated with *TQ*. However, we refrain from deeper analyses of the control variables. The second type of analysis can be generalized as:

Value/Performance = Family involvement + Control variables (Model 2)

Value/Performance = Family involvement + Ownership + Control variables (Model 3)

In these analyses, we observe long term family involvement, measured as *CEO involvement*, *Chairman involvement*, the combined involvement as CEO and Chairman (*Active involvement*) and involvement as a board participant (*On-board involvement*). For all firm-year observations, we manually collect information from annual reports to determine whether the founder-entrepreneur, founder-descendant and LTNFO are actively involved in each firm.[9] In the second type of analysis, we allow for interactions between involvement and

[9] Swedish law does not allow the dual role of CEO and Chairman of the board. Untabulated analyses show that the CEO is formally a board member in roughly 50% of Swedish publicly listed firms. When that is not the case, the CEO participates at board meetings, but has no voting right in the decision-making process.

ownership. Quite obviously, founders with a large share ownership are often actively involved as CEOs and as board members. A correlation between involvement and ownership is thus unavoidable, and we test whether involvement has an incremental explanatory power over the level of ownership.

4. Empirical Tests

4.1 Descriptive statistics

Table 3 contains information on performance measures, family ownership and different types of CEMs. The table is intentionally laid out in the format of Barontini & Caprio (2006). Panel A shows that – in comparison with their sample of European firms – the Swedish family firms are smaller, younger, less profitable and they have a lower *TQ*. We find that cash flow rights are more concentrated, the wedge between cash flow and voting rights is larger, and pyramid structures are more common. However, the differences in CEMs are not as large as one might have expected. For example, 18.0% of the Swedish family firms employ pyramid ownership structures whereas Barontini & Caprio (2006) documents that 14.6% of their sample family firms do so. The most striking difference is that 63.0% of the Swedish family firms use differentiated voting rights, as compared to 30.7% of the European sample. As shown in the bottom of Panel A, Swedish family firms are in many respects different from other publicly listed Swedish firms; and in particular, they use CEMs to a larger extent.

[Insert Table 3 about here]

Panel B displays differences within the sample of family firms. In particular, it shows that founding family firms have a higher TQ, but not a higher ROA than firms with LTNFO. We note that firms with founder-descendants perform considerably better than all other type of firms. Ownership is somewhat more concentrated in founding family firms. This difference stems mainly from firms owned by descendants of the founder. These owners own 50.3% of the voting rights (0.308 + 0.195) and 80.4% of these firms employ differentiated voting rights. Interestingly, the data reveals how firms with LTNFOs use pyramid ownership structures to a greater extent than any other type of owner. Indeed, this CEM is used for one third of the firms. In summary, family firms use CEMs much more often than any other type of owner, but different type of family owners use different type of CEMs. As we see it, this is a novel finding that can be important in understanding cross-sectional performance differences.

Panel C shows differences in performance, ownership and different type of CEMs for family firms with CEO involvement. Firms with long term family owner involvement perform better than other firms and their ownership is more concentrated. The reason for more concentrated ownership is due to a more frequent use of differentiated voting rights: pyramid structures are much less commonly used when the long term family owner is involved as the CEO (5% as compared to 21% among the other family firms). This is not surprising because pyramid structures (a control vehicle) are mainly used when the owner must control several firms.

4.2 Family ownership and performance

Next, we investigate whether ownership type affects *TQ* and *ROA*. Although there is empirical evidence of such relationships (i.e., a positive association between founding family ownership and TQ), there are no conclusive theoretical arguments as to why such relationships exist. According to financial theory, changes in value, i.e., stock returns, are

determined by risk, and the level of value is thus a consequence of the firm's risk taking. Even if (undiversified) founders are willing to accept more risk, the difference in risk exposure might not explain the entire difference in value. We control for risk by including a commonly used risk measure. Table 4 contains the results of OLS regressions where ownership variables are used to explain *TQ*. In these analyses, we analyze the differences in a sample consisting of family, industrial, financial, and other owners (n=2,005).

Table 4 instructively explains how ownership types are associated with *TQ*. The results from Model (1) show that there is no difference in *TQ* between family firms and firms with other types of ultimate owners. Similarly, the results from Model (2) show that there is no difference in *TQ* between firms dominated by a family owner who has been the largest owner for at least five years and firms without such an owner. In contrast to these non-existing relationships, Model (3) documents that *TQ* is significantly higher when a founding family is the largest ultimate owner (p-value: 0.054). This result confirms the positive effects of founding family ownership documented in the previous research (e.g., Anderson & Reeb, 2003). Finally, to corroborate the results, Model (4) tests how long LTNFOs are associated with *TQ*. The results show that these owners – in contrast to founders – have a significantly negative impact on value (p-value: 0.049).

A similar analysis is conducted for the *ROA*. Models (5) to (8) yield equivalent results, except for the effect of long term family owners, for which the effect is significantly positive (p-value: 0.010). In combination, these empirical tests suggest that there is a unique positive association between founding family ownership and performance that does not exist for other types of family firms. In untabulated tests, we include controls for differentiated voting rights but these do not have effects on the associations between performance and owner type; perhaps because they are frequently used by all of the different types of owners.

[Insert Table 4 about here]

Next, we narrow the analysis to a sample of only family firms (n=1,431).[10] Table 5 contains an analysis of the association between *TQ* and different type of long term owners within this sample. The results from Model (1) document that *TQ* is higher in firms in which the largest ultimate owner has been such an owner for more than five years (p-value: 0.007). These results contrast the results in Table 4, and the difference is likely to stem from a more narrowly defined sample, where the effects of founding family ownership are more noticeable.

[Insert Table 5 about here]

We also analyze differences between long term owners by separating founding and non-founding owners. Models (2) and (3) show that the associations are indeed different: founders have a positive effect on *TQ* (p-value: 0.005), whereas long term non-founding owners have a negative effect (p-value: 0.089). The founder effect remains when we combine the two types of long term family owners in Model (4). However, firms with LTNFOs do not perform significantly worse than other non-founding family owners. For robustness reasons, we also examine how family owner type affects the *ROA* and the results presented for Models (5) to (8) are similar. Most probably, founders have a positive effect on operating performance and

[10] The results are similar to the results for a sample that includes non-family firms (n=2,005).

that has a positive effect on value. Similarly, non-founding family owners have no positive effect on the operating performance and thus value is unaffected. Taken together, the results in Table 5 support the notion that family firms are considerably different from each other, but it also questions whether differences in monitoring capabilities can cause differences in performance.

4.3 Family involvement, ownership and performance

Next, we examine how family involvement affects the *TQ* and the *ROA*. Previous research focuses on general family effects, or specific founding family effects. In this respect, our work has two distinct characteristics: (i) we study differences between long term family owners, and (ii) we perform the analysis within a sample of only family firms which allows us to pinpoint differences between family owners.[11] A priori, it is not clear if involvement affects family firm performance. In our analysis, involvement relies on the idea that long term family owners affect value when owners have formal ties with the firm. Similar to several previous studies, we explore a variety of affiliation measures (CEOs, board chairmen and ordinary board members). In the regression analyses, we maintain the same control variables as before.

[Insert Table 6 about here]

Table 6 documents substantial differences in involvement between founding family owners and LTNFOs. For example, founding family owners act as CEOs in 29.5% of the firm-year

[11] Untabulated tests show that results are qualitatively similar if we include non-family firms in the analysis (n=2,005) and if we restrict the analysis to a sample in which there is at least some founder ownership (n=994).

observations. In contrast, the LTNFOs act as CEOs in only 6.2% of the firm-year observations. On the other hand, the LTNFOs are more active as Chairmen of the boards (35.6% versus 26.9%). We document that in one-third of the firm-year observations there is no direct involvement by the LTNFO. We do not analyze indirect involvement of long term family owners that stem from loyal professionals appointed by the family owners. However, such indirect involvement is likely to exist. In particular, non-founding owners such as the Wallenberg and Stenbeck families often appoint loyal professionals as CEOs and board members of firms under their control.

Table 7 presents the results for regressions on operating performance using dummies for long term family involvement and four control variables. The data mainly suggest that involvement by the founding family has a positive effect. Model (1) shows that firms in which the founder is involved as the *CEO* perform considerably better than other family firms (p-value: 0.000). Surprisingly, the involvement as *Chairman* does not have this effect, but Model (3) shows that firms with an actively involved founder perform better (p-value: 0.001). The same is true for firms with a founder on the board of directors (p-value: 0.000). Taken together, the analysis clearly suggests that founders are involved in firms with a considerably better operating performance. Untabulated robustness tests show that it is CEO involvement that drives the results. There is a considerable overlap between the three types of involvement: *CEO*, *Active* and *On-board*. There is no overlap between involvement as CEO and Chairman.

[Insert Tables 7 and 8 about here]

The effects of LTNFOs are quite different. We find no positive effect coming from an involvement as CEO, but this is not surprising given how seldom this type of owner is

involved as the CEO. The only observable involvement effect is the negative effect of board participation (p-value: 0.039).

Table 8 offers a similar analysis, but here we target the *TQ*. The analysis reveals that except when founders sit on the board of directors, there is no association between long term family involvement and the *TQ*. A number of untabulated tests reveal that the effects of founder involvement are not conditioned on the length of the founder-firm relationship: active founders in young firms do not create value either. Similarly, there is no effect of the differences between founder-entrepreneur involvement and founder-descendant involvement (i.e., second and third generations). For firms with LTNFO, the data suggests no significant relations between involvement and the *TQ*.

In Tables 4 and 5 we document positive associations between founding family ownership and performance, and negative associations between LTNFO ownership and performance. For this reason, it is surprising that there are few involvement effects in Tables 7 and 8. To conclude the analysis, we also analyze the combined effects of ownership and involvement on the *TQ* and the *ROA*. In Tables 9 and 10 we employ the same involvement measures as before, but we also include a continuous variable that measures the percentage of long term family ownership. The presented results are from regressions with all founder ownership; including firm-years when the founder is not the largest owner.[12]

[Insert Tables 9 and 10 about here]

[12] Results are qualitatively the same if we focus only on firms where founders are the largest owners. We choose these regressions to prove that founder family ownership stretches beyond the effects of being largest.

Table 9 shows that founding family involvement has incremental effects on the operating performance. In specific, *CEO involvement* is associated with a higher *ROA* (p-value: 0.009). Surprisingly, the coefficient on *Chairman involvement* is negative (p-value 0.083). It is interesting that the percentage ownership of voting rights has a strong positive association with the *ROA* for founders. For the LTNFOs, all involvement coefficients are not statistically significant. We note however that the coefficient on ownership is typically negative.

Table 10 displays a similar analysis for the measure *TQ*. In several respects, the results are as expected given the previously presented regression models. For both categories of long term family owners, there are no significant associations between involvement and *TQ*. However, the previously identified positive relation between founding family ownership and *TQ*, and the negative association between long term non-founding family ownership and *TQ* is consistent. The analysis of ownership, involvement and valuation yields interesting results in the sense that the coefficient for *Long term family ownership* has a positive association with the *TQ*, but founder involvement has no association with the *TQ*. Untabulated tests show that these results remain when we include non-family firms (n= 2,005) and (for founders) when we exclude non-founding family firms from the sample. We also test a number of alternative definitions of family involvement and find no significant relationships with *TQ*. Taken together, founding family ownership has a robust positive association with *TQ* that is unassociated with involvement, and that long term non-founding family ownership has a robust negative association with *TQ* that is unassociated with involvement.

5. Conclusions

Family firms attract an increasing amount of attention in academic research. This attention is not surprising given the large amount of publicly listed firms that are under family control,

but despite the increased attention we know little of differences between family firms. Our study identifies and examines cross-sectional differences in how family firms are owned and controlled, how owners get involved in the business and how family firms perform.

The empirical analysis shows that family firms do not perform better than firms with other type of owners. In that sense, our results contrast findings of e.g. Maury (2006). However, we show that founding family firms perform better than other firms. This result is in line with most previous studies in the area (Anderson & Reeb, 2003; Villalonga & Amit, 2006; Barontini & Caprio, 2006; Isakov & Weisskopf, 2014). Given that the founders in our sample use dual-class shares to a much larger extent than in any other previous study, the strong positive association between founder ownership and performance is somewhat surprising and thus the results have an incremental contribution to the literature. In contrast to previous literature, we can show that this result is not an effect of the founding family firm owners being *family* owners, or that they are *long term* owners: Family firms do not perform better than other firms and LTNFOs perform significantly worse than other firms. These are important and novel empirical findings that help us understand the significance of the founding family puzzle.

Both founding and non-founding family owners use dual-class shares to a large extent. The wedge between cash flow rights and voting rights is larger in founding family firms, but differences are mainly driven by firms controlled by descendants of the founder. LTNFOs use a different CEM more frequently: the pyramid ownership structure. It is interesting that founding family firms use CEMs and they perform consistently better than other firms, and at the same time firms with LTNFOs use CEMs and they perform consistently worse than other firms. This suggests that the use of CEMs is not necessarily a key driver of firm performance. This conclusion is supported by untabulated tests where we include CEMs as control variables and find that they are not associated with the *ROA* and the *TQ*. However, we stress that these

findings might be unique for a sample where differentiated voting rights (pyramid ownership structures) are used in 53% (16%) of the sample.

The superior performances of founding family firms relative other long term family firms are intriguing because it is not obvious that the difference can be explained by agency theory. As we see it, the LTNFO might have a similar – perhaps even a better – ability to monitor and control management relative to the founding family owner. In particular, the overall use of CEMs is not exceptionally different between the two groups of long term family owners.

Involvement in the operations and on the board of directors is considerably different between founding and non-founding family owners. In general, founders are more active owners, but the activity is only related to a better operating performance. Indeed, we note that the level of ownership has a stronger positive association with performance. Again, we emphasize that for founding family firms, the ownership effect is positive, and for long term non-founders the effect of ownership on performance is negative.

Our findings are, when taken together, difficult to rationalize with a standard principal-agent argument of information-advantages. We find substantial differences in performance between two types of long term family owners with quite similar information-advantages. We also document that active involvement has little effect on *TQ*. In addition, Table 3 shows that firms owned by founder-descendants perform significantly better than firms owned by other type of founding and non-founding owners. It is difficult to argue that founder-descendants reduce agency costs better than professional LTNFOs. In addition, founder-descendants employ more dual-class shares than any other type of owner. These findings lead to new questions rather than answers.

Future research should try to explain why publicly listed family firms differ from each other and if there are alternative explanations to the superior performance of founding family firms.

Public firms with long term family owners must act differently from other firms, but few studies have emphasized differences in their investment and financing decisions. Given that all long term oriented owners are likely to cherish control over corporate decision-making, their decisions might take control in consideration. At the same time, differences in CEMs and access to external funding can lead to differences in the decision making between the family owner types. Analyses of these differences seem to be important steps towards a better understanding of the puzzling superior performance of founding family firms and the inferior performance of firms with LTNFOs.

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Table 1 – Sample selection
The sample consists of all Swedish non-financial firms in the years 2001 to 2010: 2,005 firm-year observations. *Family owner* is a dummy taking the value of 1 when the largest ultimate owner is a family. *Founder-entrepreneur* is a firm where the founder retain some ownership. *Founder-descendant* is a firm where a heir of the founder retain some ownership. *Long term non-founding family owner* is a firm where a non-founding family has been the largest ultimate owner for minimum five years. *Other family owner* is a firm where the ultimate owner is not a founder-entrepreneur, founder-descendant or long term non-founding owner.

	# Firm-years		# Firms
Panel A – Initial sample eliminations			
Firms listed at the Nasdaq OMX Stockholm	2,671	(100%)	375
-Financial institutions and real estate companies	-358		
-Firms domiciled outside of Sweden	-134		
-Other eliminations*	-174		
Sample with all owner types	2,005		297
Panel B - Type of largest owner			
Family owner	1,431	(71.4 %)	235
Industrial owner	251	(12.5 %)	63
Financial owner	268	(13.4 %)	80
State owner	11	(0.5 %)	2
Other owner	44	(2.2 %)	14
Sample with all owner types	2,005		
Panel C - Type of largest owner in family firms			
Founder-entrepreneur	475	(33.2%)	84
Founder-descendant	214	(15.0%)	28
Founder family owner, combined	689	(48.2%)	109
Long-term non-founding family owner	433	(30.3%)	95
Other family owner	308	(21.5%)	102
Sample with family firms	1,431		235

*= Other eliminations consist of firms with sales of less than 25msek (128obs), firms with negative equity (6obs) and trimming 1% on the dependent variables (40obs).

Table 2: Variable definitions

Variable	Definition
Tobins'Q (TQ)	The combined market value of equity and debt, divided by the combined book value of equity and debt.
Return on operating assets (ROA)	The operating profit in year *t*, divided by average the combined book value of equity and debt.
Family owner	A dummy taking the value of 1 when the largest ultimate owner is a family.
Long-term family owner	A dummy taking the value of 1 when the largest ultimate owner is a family that has been the largest owner for minimum five years.
Founder owner	A dummy taking the value of 1 when the largest ultimate owner is a founder or his descendants.
Long-term non-founding owner	A dummy taking the value of 1 when a non-founding family has been the largest ultimate owner for minimum five years.
Founder ownership	The percentage of voting rights controlled by the founding family at the end of year t.
CEO involvement	A dummy taking the value of 1 when the founder acts as the CEO.
Chairman involvement	A dummy taking the value of 1 when the founder acts as the chairman of the board.
Active involvement	A dummy taking the value of 1 when the founder acts as the CEO or the chairman of the board.
On-board involvement	A dummy taking the value of 1 when the founder acts as the chairman or as an ordinary board member.
Firm age	The natural logarithm of the number of years since the company was founded. A cut-off maximum age of 100 years is employed.
Intangible asset intensity	Book value of intangible assets at the end of year *t*, divided by the book value of total assets at the end of year *t*.
Firm size	The natural logarithm of the total assets measured at the end of the calendar year.
Risk	The standard deviation of the 36 monthly stock returns prior to April t+1.

Table 3: Ownership and control of family firms

The sample consists of all Swedish non-financial firms in the years 2001 to 2010: 2,005 firm-year observations. *Family* is a dummy taking the value of 1 when the largest ultimate owner is a family. *Industrial* is a dummy taking the value of 1 when the largest ultimate owner is another firm in which the largest owner controls less than 30% of the voting rights. *Founder-entrepreneur controlled firm* is a dummy taking the value of 1 when the founder retain some ownership. *Founder-descendant controlled firms* is a dummy taking the value of 1 when an heir of the founder retain some ownership. *Long term non-founding owners* is a dummy taking the value of 1 when a non-founding family has been the largest ultimate owner for minimum five years. *Other family firms* is a dummy taking the value one when the ultimate owner is not a founder-entrepreneur, founder-descendant or long term non-founding owner. *Founder-entrepreneur CEO* is a dummy taking the value of 1 when a founder acts as the CEO. *Founder-descendant CEO* is a dummy taking the value of 1 when an heir of the founder acts as the CEO. *Long-term non-founding CEO* is a dummy taking the value of 1 when a long term non-founding family owner acts as the CEO. Family (LTNFO and Founder) is a dummy taking the value of 1 when a long term non-founding family owner or a founder (or the family of a founder) acts as the CEO. TQ is the combined market value of equity and debt, divided by the combined book value of equity and debt. ROA is the operating profit in year *t*, divided by average the combined book value of equity and debt. *Size* is the natural logarithm of the book value of total assets. *Age* is the natural logarithm of the number of years since the firm was incorporated. *CFR* is a continuous variable that measures the owner's percentage of cash flow rights. *Wedge* is the difference between the largest ultimate owner's cash flow and voting rights. *DVR* is a dummy taking the value of 1 when a firm has differentiated voting rights. The Wedge variable is only above zero if the dummy DVR is equal to one. *Pyramid* is a dummy taking the value of 1 if the firm is owned by a publicly listed investment firm. Both is a dummy taking the value 1 if the firm uses both differentiated voting rights and employ pyramid ownership. **Bold** denotes statistical significance at the 5% level (two-sided test).

Panel A – Ownership and control in all firms

	N	TQ	ROA	Size	Age	CFR	Wedge	DVR	Pyramids	Both
Family owners	1431	1.849	0.033	3.103	1.476	0.261	0.116	0.634	0.180	0.112
Industrial	251	1.882	0.036	3.605	1.537	0.285	0.055	0.402	0.239	0.143
Financial	268	2.120	0.011	3.074	1.319	0.140	0.002	0.153	0.000	0.000
State	11	1.400	0.036	5.142	0.678	0.427	0.001	0.091	0.000	0.000
Other	44	1.970	0.032	3.000	1.538	0.247	0.085	0.477	0.000	0.000
Non-family firms	574	1.991	0.024	3.340	1.419	0.216	0.032	0.286	0.105	0.063
Difference, family and non-family firms		**-0.142**	+0.009	**-0.237**	**+0.057**	**+0.045**	**+0.084**	**+0.348**	**+0.075**	**+0.049**
Panel B – Ownership and control in family firms										
Founder-entrepreneur owners	754	2.026	0.004	2.767	1.327	0.264	0.108	0.645	0.093	0.049
Founder-descendant owners	240	2.283	0.099	3.591	1.662	0.308	0.195	0.804	0.158	0.158
Founding family owners	994	2.088	0.026	2.965	1.408	0.274	0.129	0.683	0.109	0.075
Long term non-founding owners (LTNFO)	433	1.740	0.033	3.271	1.543	0.229	0.092	0.594	0.339	0.222
Other family owners	308	1.686	-0.022	2.845	1.397	0.204	0.027	0.328	0.234	0.081
Difference, Founding family owners and LTNFO		**+0.348**	-0.007	**-0.306**	**-0.135**	**+0.045**	**+0.037**	**+0.089**	**-0.230**	**-0.147**
Panel C – Long term owner CEO involvement in family firms										
Founder-entrepreneur owners	268	1.950	0.033	2.845	1.230	0.270	0.133	0.604	0.052	0.037
Founder-descendant owners	43	1.956	0.093	2.811	2.011	0.404	0.185	1.000	0.070	0.070
Founding family owners	311	1.951	0.041	2.841	1.338	0.289	0.140	0.659	0.055	0.042
Long-term non-founding family owners	27	2.568	0.015	2.789	1.470	0.253	0.030	0.519	0.000	0.000
Long term family owners	338	2.004	0.041	2.838	1.349	0.287	0.132	0.652	0.051	0.039
Other family firms	1133	1.806	0.029	3.174	1.505	0.250	0.108	0.611	0.213	0.130
Difference, Long term family owners and Other family firms		**+0.198**	+0.012	**-0.336**	**-0.156**	**+0.037**	**+0.024**	+0.041	**-0.162**	**-0.091**

Table 4: Owner type and performance

The sample consists of all Swedish non-financial firms in the years 2001 to 2010: 2,005 firm-year observations. The dependent variables are Tobin's Q (*TQ*) and the return on assets (*ROA*). See Table 2 for definitions. *Family owner* is a dummy taking the value of 1 when the largest ultimate owner is a family. *Long-term family owner* is a dummy taking the value of 1 when the largest ultimate owner is a family that has been the largest owner for minimum five years. *Founder owner* is a dummy taking the value of 1 when the largest ultimate owner is a founder or his descendants. *Long term non-founding owner* is a dummy taking the value of 1 when a non-founding family has been the largest ultimate owner for minimum five years. *Firm age* is the natural logarithm of the number of years since the firm was incorporated. *Intangible asset intensity* is the book value of intangible assets divided by the book value of total assets. *Firm size* is the natural logarithm of the book value of total assets. *Risk* is the standard deviation of the 36 monthly stock returns prior to April t+1. The analyses are based on pooled OLS regressions with standard errors clustered at the firm level. Year and industry fixed effects are added to each model. P-values are reported in parentheses and asterisks denote statistical significance at the 10% (*), 5% (**) and 1% (***) levels.

	(1) TQ	(2) TQ	(3) TQ	(4) TQ	(5) ROA	(6) ROA	(7) ROA	(8) ROA
Family owner	-0.088 (0.481)				0.005 (0.716)			
Long term family owner		0.090 (0.404)				0.027** (0.010)		
Founder owner			0.280* (0.054)				0.044*** (0.000)	
Long-term non-founding owner				-0.224** (0.049)				-0.018* (0.078)
Firm age	-0.035 (0.758)	-0.048 (0.666)	-0.040 (0.710)	-0.023 (0.835)	-0.006 (0.576)	-0.008 (0.462)	-0.006 (0.581)	-0.004 (0.691)
Intangible asset intensity	-0.851** (0.013)	-0.812** (0.014)	-0.734** (0.021)	-0.839** (0.014)	0.003 (0.920)	0.012 (0.653)	0.019 (0.485)	0.003 (0.918)
Firm size	-0.053 (0.579)	-0.039 (0.669)	-0.022 (0.810)	-0.035 (0.701)	0.036*** (0.000)	0.036*** (0.000)	0.038*** (0.000)	0.036*** (0.000)
Risk	2.043** (0.014)	2.150** (0.009)	2.319** (0.005)	2.111** (0.011)	-0.782*** (0.000)	-0.767*** (0.000)	-0.751*** (0.000)	-0.782*** (0.000)
Constant	0.964** (0.013)	0.760** (0.032)	0.591 (0.110)	0.859** (0.011)	-0.031 (0.385)	-0.051 (0.131)	-0.066* (0.066)	-0.024 (0.445)
N	2005	2005	2005	2005	2005	2005	2005	2005
R^2	0.218	0.218	0.225	0.221	0.320	0.326	0.335	0.322
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 5: Family ownership and performance

The sample consists of all Swedish non-financial family firms in the years 2001 to 2010: 1,431 firm-year observations. The dependent variables are Tobin's Q (*TQ*) and return on assets (*ROA*). See Table 2 for definitions. *Long-term owner* is a dummy taking the value of 1 when the largest ultimate owner is a family that has been the largest owner for minimum five years. *Founder owner* is a dummy taking the value of 1 when the largest ultimate owner is a founder or his descendants. *Long term non-founding owner* is a dummy taking the value of 1 when a non-founding family has been the largest ultimate owner for minimum five years. *Firm age* is the natural logarithm of the number of years since the firm was incorporated. *Intangible asset intensity* is the book value of intangible assets divided by the book value of total assets. *Firm size* is the natural logarithm of the book value of total assets. *Risk* is the standard deviation of the 36 monthly stock returns prior to April t+1. The analyses are based on pooled OLS regressions with standard errors clustered at the firm level. Year and industry fixed effects are added to each model. P-values are reported in parentheses and asterisks denote statistical significance at the 10% (*), 5% (**) and 1% (***) levels.

	(1) TQ	(2) TQ	(3) TQ	(4) TQ	(5) ROA	(6) ROA	(7) ROA	(8) ROA
Long-term owner	0.295***				0.050***			
	(0.007)				(0.000)			
Founder owner		0.419***		0.452***		0.054***		0.064***
		(0.005)		(0.002)		(0.000)		(0.000)
Long term non-founding owner			-0.233*	0.059			-0.023**	0.019
			(0.089)	(0.615)			(0.041)	(0.197)
Firm age	-0.146	-0.124	-0.130	-0.126	-0.016	-0.013	-0.014	-0.014
	(0.264)	(0.327)	(0.318)	(0.320)	(0.174)	(0.245)	(0.218)	(0.228)
Intangible asset intensity	-0.775	-0.704	-0.928*	-0.687	0.040	0.041	0.014	0.047
	(0.110)	(0.123)	(0.058)	(0.136)	(0.201)	(0.173)	(0.661)	(0.122)
Firm size	-0.025	0.010	0.029	0.003	0.027***	0.034***	0.035***	0.032***
	(0.852)	(0.942)	(0.830)	(0.980)	(0.001)	(0.000)	(0.000)	(0.000)
Risk	2.729**	2.983**	2.643**	2.992**	-0.940***	-0.916***	-0.955***	-0.914***
	(0.036)	(0.024)	(0.044)	(0.024)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.514	0.349	0.651	0.334	-0.018	-0.033	0.007	-0.037
	(0.233)	(0.449)	(0.139)	(0.461)	(0.584)	(0.357)	(0.814)	(0.296)
N	1431	1431	1431	1431	1423	1423	1423	1423
R^2	0.230	0.241	0.228	0.241	0.352	0.362	0.340	0.363
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 6: Involvement in founder and long term non-founder family firms
The sample consists of all Swedish non-financial firms in the years 2001 to 2010: 2,005 firm-year observations. *On-board involvement* is a dummy taking the value one if a founding family/Long term non-founding family owner is either the Chairman of the board or a board member. *Active involvement* is a dummy taking the value one if a founding family/Long term non-founding family owner is either the CEO or Chairman of the board. *No involvement* is a dummy taking the value one if a founding family/Long term non-founding family owner has no involvement in the firm whatsoever (i.e. all dummies in table 6 are equal to zero).

	Founding family owners			**Long term non-founding owners**			
	n	%	Firms	n	%	Firms	Difference
Chief Executive Officer (CEO)	293	0.295	69	27	0.062	7	**+0.233**
Chairman of the board	267	0.269	62	154	0.356	32	**-0.087**
Board member	565	0.568	113	132	0.305	39	**+0.263**
On-board involvement	832	0.837	151	286	0.661	64	**+0.176**
Active involvement	560	0.563	109	181	0.418	39	**+0.145**
No involvement	157	0.158	40	144	0.332	40	**-0.174**
All long term owners	994	1.000		433	1.000		

Table 7: Long term family involvement and profitability

The sample consists of all Swedish non-financial family firms in the years 2001 to 2010: 1,431 firm-year observations. The dependent variable is ROA as defined in Table 2. *CEO involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO. *Chairman involvement* is a dummy taking the value of 1 when a long term family owner acts as the chairman of the board. *Active involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO or chairman. *On-board involvement* is a dummy taking the value of 1 when a long term family owner sits on the board of directors. *Firm age* is the natural logarithm of the number of years since the firm was incorporated. *Intangible asset intensity* is the book value of intangible assets divided by the book value of total assets. *Firm size* is the natural logarithm of the book value of total assets. *Risk* is the standard deviation of the 36 monthly stock returns prior to April t+1. The analyses are based on pooled OLS regressions with standard errors clustered at the firm level. Year and industry fixed effects are added to each model. P-values are reported in parentheses and asterisks denote statistical significance at the 10% (*), 5% (**) and 1% (***) levels.

	Founding family involvement				Non-founding long-term family involvement			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CEO involvement	0.071***				0.020			
	(0.000)				(0.579)			
Chairman involvement		-0.002				-0.018		
		(0.913)				(0.173)		
Active involvement			0.048***				-0.012	
			(0.001)				(0.391)	
On-board involvement				0.055***				-0.022**
				(0.000)				(0.039)
Firm age	-0.011	-0.015	-0.010	-0.013	-0.016	-0.016	-0.015	-0.014
	(0.329)	(0.188)	(0.381)	(0.255)	(0.178)	(0.180)	(0.192)	(0.214)
Intangible asset intensity	0.027	0.013	0.033	0.041	0.013	0.013	0.013	0.015
	(0.384)	(0.669)	(0.293)	(0.173)	(0.686)	(0.687)	(0.665)	(0.629)
Firm size	0.039***	0.032***	0.037***	0.035***	0.033***	0.034***	0.033***	0.034***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Risk	-0.954***	-0.966***	-0.930***	-0.914***	-0.968***	-0.963***	-0.962***	-0.965***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-0.032	0.014	-0.032	-0.038	0.012	0.012	0.012	0.010
	(0.379)	(0.687)	(0.383)	(0.289)	(0.694)	(0.715)	(0.699)	(0.743)
N	1422	1423	1423	1423	1423	1423	1423	1423
R^2	0.360	0.336	0.352	0.362	0.336	0.337	0.336	0.339
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 8: Long term family involvement and valuation

The sample consists of all Swedish non-financial family firms in the years 2001 to 2010: 1,431 firm-year observations. The dependent variable is Tobin's Q (*TQ*) as defined in Table 2. *CEO involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO. *Chairman involvement* is a dummy taking the value of 1 when a long term family owner acts as the chairman of the board. *Active involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO or chairman. *On-board involvement* is a dummy taking the value of 1 when a long term family owner sits on the board of directors. *Firm age* is the natural logarithm of the number of years since the firm was incorporated. *Intangible asset intensity* is the book value of intangible assets divided by the book value of total assets. *Firm size* is the natural logarithm of the book value of total assets. *Risk* is the standard deviation of the 36 monthly stock returns prior to April t+1. The analyses are based on pooled OLS regressions with standard errors clustered at the firm level. Year and industry fixed effects are added to each model. P-values are reported in parentheses and asterisks denote statistical significance at the 10% (*), 5% (**) and 1% (***) levels.

	Founding family involvement				Non-founding long-term family involvement			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CEO involvement	0.212				0.051			
	(0.278)				(0.888)			
Chairman involvement		0.221				-0.144		
		(0.413)				(0.373)		
Active involvement			0.260				-0.114	
			(0.197)				(0.469)	
On-board involvement				0.457***				-0.191
				(0.004)				(0.152)
Firm age	-0.128	-0.122	-0.114	-0.120	-0.145	-0.145	-0.141	-0.133
	(0.334)	(0.351)	(0.379)	(0.339)	(0.277)	(0.271)	(0.283)	(0.305)
Intangible asset intensity	-0.900*	-0.860*	-0.817*	-0.690	-0.935*	-0.940*	-0.933*	-0.917*
	(0.070)	(0.064)	(0.084)	(0.124)	(0.058)	(0.059)	(0.060)	(0.062)
Firm size	0.022	0.003	0.024	0.017	0.004	0.012	0.008	0.018
	(0.873)	(0.979)	(0.865)	(0.896)	(0.975)	(0.930)	(0.950)	(0.894)
Risk	2.614**	2.700**	2.783**	3.030**	2.537*	2.559*	2.573**	2.540*
	(0.045)	(0.037)	(0.032)	(0.022)	(0.053)	(0.051)	(0.050)	(0.055)
Constant	0.567	0.576	0.460	0.289	0.698	0.690	0.695	0.681
	(0.209)	(0.281)	(0.387)	(0.538)	(0.110)	(0.116)	(0.112)	(0.119)
N	1431	1431	1431	1431	1431	1431	1431	1431
R^2	0.226	0.227	0.229	0.244	0.224	0.225	0.225	0.226
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 9: Founder involvement, ownership and profitability

The sample consists of all Swedish non-financial family firms in the years 2001 to 2010: 1,431 firm-year observations. The dependent variable is the return on assets (*ROA*) as defined in Table 2. *Long term family ownership* is a continuous variable that measures the founder/long term non-founding family owner's percentage of voting rights. *CEO involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO. *Chairman involvement* is a dummy taking the value of 1 when a long term family owner acts as the chairman of the board. *Active involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO or chairman. *On-board involvement* is a dummy taking the value of 1 when a long term family owner sits on the board of directors. *Firm age* is the natural logarithm of the number of years since the firm was incorporated. *Intangible asset intensity* is the book value of intangible assets divided by the book value of total assets. *Firm size* is the natural logarithm of the book value of total assets. *Risk* is the standard deviation of the 36 monthly stock returns prior to April t+1. The analyses are based on pooled OLS regressions with standard errors clustered at the firm level. Year and industry fixed effects are added to each model. P-values are reported in parentheses and asterisks denote statistical significance at the 10% (*), 5% (**) and 1% (***) levels.

	Founding family involvement				Non-founding long-term family involvement			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Long term family ownership	0.110***	0.084***	0.121***	0.094***	-0.040	-0.044*	-0.032	-0.040
	(0.000)	(0.000)	(0.000)	(0.000)	(0.112)	(0.084)	(0.236)	(0.154)
CEO involvement		0.048***				0.030		
		(0.009)				(0.417)		
Chairman involvement			-0.027*				-0.008	
			(0.083)				(0.562)	
Active involvement				0.017				0.000
				(0.271)				(0.993)
Firm age	-0.017	-0.014	-0.019*	-0.015	-0.014	-0.015	-0.014	-0.014
	(0.138)	(0.222)	(0.089)	(0.194)	(0.227)	(0.209)	(0.215)	(0.227)
Intangible asset intensity	0.055*	0.054*	0.052*	0.056*	0.014	0.012	0.013	0.014
	(0.080)	(0.075)	(0.096)	(0.073)	(0.657)	(0.691)	(0.670)	(0.656)
Firm size	0.035***	0.039***	0.035***	0.036***	0.034***	0.034***	0.034***	0.034***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Risk	-0.890***	-0.900***	-0.899***	-0.888***	-0.964***	-0.968***	-0.963***	-0.964***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Constant	-0.036	-0.055	-0.025	-0.045	0.011	0.010	0.011	0.011
	(0.307)	(0.154)	(0.494)	(0.230)	(0.721)	(0.740)	(0.729)	(0.721)
N	1423	1423	1423	1423	1423	1423	1423	1423
R^2	0.366	0.375	0.369	0.367	0.338	0.338	0.338	0.338
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 10: Founder involvement, ownership and valuation

The sample consists of all Swedish non-financial family firms in the years 2001 to 2010: 1,431 firm-year observations. The dependent variable is Tobin's Q (*TQ*) as defined in Table 2. *Long term family ownership* is a continuous variable that measures the founder/long term non-founding family owner's percentage of voting rights. *CEO involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO. *Chairman involvement* is a dummy taking the value of 1 when a long term family owner acts as the chairman of the board. *Active involvement* is a dummy taking the value of 1 when a long term family owner acts as the CEO or chairman. *On-board involvement* is a dummy taking the value of 1 when a long term family owner sits on the board of directors. *Firm age* is the natural logarithm of the number of years since the firm was incorporated. *Intangible asset intensity* is the book value of intangible assets divided by the book value of total assets. *Firm size* is the natural logarithm of the book value of total assets. *Risk* is the standard deviation of the 36 monthly stock returns prior to April t+1. The analyses are based on pooled OLS regressions with standard errors clustered at the firm level. Year and industry fixed effects are added to each model. P-values are reported in parentheses and asterisks denote statistical significance at the 10% (*), 5% (**) and 1% (***) levels.

	Founding family involvement				Non-founding long-term family involvement			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Long term family ownership	0.783**	0.783**	0.760***	0.775***	-0.676**	-0.703**	-0.759**	-0.815**
	(0.010)	(0.015)	(0.006)	(0.009)	(0.037)	(0.032)	(0.037)	(0.030)
CEO involvement		-0.003				0.197		
		(0.990)				(0.558)		
Chairman involvement			0.053				0.087	
			(0.836)				(0.619)	
Active involvement				0.008				0.127
				(0.967)				(0.461)
Firm age	-0.151	-0.148	-0.145	-0.150	-0.119	-0.123	-0.115	-0.116
	(0.231)	(0.237)	(0.247)	(0.225)	(0.358)	(0.342)	(0.377)	(0.372)
Intangible asset intensity	-0.621	-0.627	-0.613	-0.621	-0.925*	-0.934*	-0.919*	-0.922*
	(0.179)	(0.175)	(0.175)	(0.178)	(0.059)	(0.056)	(0.061)	(0.060)
Firm size	0.017	0.016	0.016	0.017	0.023	0.027	0.020	0.022
	(0.900)	(0.901)	(0.900)	(0.901)	(0.865)	(0.843)	(0.881)	(0.874)
Risk	3.139**	3.145**	3.160**	3.141**	2.562**	2.532*	2.555**	2.533**
	(0.014)	(0.014)	(0.014)	(0.014)	(0.050)	(0.053)	(0.049)	(0.050)
Constant	0.355	0.358	0.335	0.350	0.682	0.676	0.685	0.683
	(0.471)	(0.462)	(0.543)	(0.514)	(0.120)	(0.124)	(0.117)	(0.119)
N	1431	1431	1431	1431	1431	1431	1431	1431
R^2	0.241	0.241	0.241	0.241	0.230	0.230	0.230	0.230
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes