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# The Effects of Ownership on Corporate Performance and Dividend Payout Policy

*I. Performance in Founder Owned Firms*
*II. How Do Involved Owners Influence Dividend Payout Policies?*

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# ABSTRACT

This thesis consists of two separate papers where the first study examines performance in founder owned firms and the second assess how involved owners influence dividend payout policies. All our tests are based on an extensive data set that initially consists of 2671 firm-year observations, and includes 375 firms traded on the Stockholm Stock Exchange (Stockholmsbörsen), over the period 2001 - 2010.

In the first study we use several regression analyses to study the effects of founder ownership on performance measured by Return on Net Operating Assets and Tobin's Q. Our findings support earlier research in that founder owned firms have a positive influence on performance. Additionally, to the best of our knowledge, we find novel evidence that indicate a somewhat exponential relationship between founder ownership and firm performance. When testing for founders who have positions as CEO, board member and/or chairman, we find that they have a slightly lower positive net effect on firm performance. Finally, we prove that founder owned firms perform better than firms who have long-term owners. To our understanding, this is also a novel empirical finding.

In the second study we employ a model consisting of both Logit and Tobit regressions to test how firm owners with firm involvement through being a founder or long-term owner affect cash dividend payout policies. Our findings show that involved owners have more aggressive cash dividend policies than others. When examining different ownership involvement levels, we find that increased ownership involvement leads to more aggressive dividend payout policies. Finally, our results unexpectedly indicate that founder owners who are solely CEO have less aggressive payout preferences than others. These results do not only contribute to the sparse literature on how agency costs affect payout preferences, but are as far as we know, also novel empirical findings.

# ACKNOWLEDGEMENTS

We started the work on this thesis well aware of the uncertainties and complexities associated with the chosen subject. This has led to a challenging and demanding process in terms of time and effort. However, most of all, it has been a great learning experience. We hope this thesis may provide some new insights in the interdependent fields of financial accounting and capital markets, corporate finance and corporate governance.

It was a class with our supervisor and associate professor, Mattias Hamberg (NHH), that sparked our interest for financial accounting and capital markets, corporate finance and corporate governance research. This led us to a writing process that started during early fall 2011 when we applied for the Master Thesis Scholarship in Financial Accounting and Auditing. We humbly thank the Research Group in Financial Accounting and Auditing for granting us the scholarship. We would like to thank our supervisor, associate professor Mattias Hamberg (NHH), for valuable support, relevant feedback, and challenging discussions. He has also provided us with access to his personal data set, which is both unique and comprehensive. Additionally, we would like to express our gratitude to professor Kjell Henry Knivsflå (NHH) and the rest of the Research Group for helping us with the early essentials of this thesis. Further, we greatly appreciate all the time and effort provided by our colleagues, Camilla Fylling Moltu and Jon Arne Husa, to give constructive comments and helpful feedback.

This thesis concludes our major in Business Analysis and Performance Management within the Master of Science in Economics and Business Administration program at the Norwegian School of Economics (NHH). We would like to take this final opportunity to express our gratitude to fellow students and faculty for five excellent years.

Bergen, June 13th 2012.

Egil Andre Fagerland  Kristoffer Kvamme Nilsen

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# PAPER 1: PERFORMANCE IN FOUNDER OWNED FIRMS

## 1.0 INTRODUCTION

A founder's role in creating successful companies is an interesting phenomenon that has attracted the interest of numerous researchers. Learning more about how different knowledge, psychological, emotional factors and agency costs affect performance can help stakeholders to be more susceptible to understand the correct information about what different types of ownership communicate.

Some studies suggest that founders have a limited potential as managers and owners (c.f. Hambrick & Crozier (1985) and Rubenson & Gupta (1997)). However, more recent research attribute positive performance effects to these founders (c.f. Morck et al. (1988), Anderson & Reeb (2003), Arthurs & Busenitz (2003), Nelson (2003), Villalonga & Amit (2006), He (2008) and Florackis et al. (2009)). Based on this recent research, we expect to observe a positive relationship between founder owners and firm performance.

In our study we use several definitions to describe different kinds of owners. In general, we define a founder as an individual who has created his own firm, in line with Begley & Boyd (1987).[1] Thus, a founder who has voting power is defined as a founder owner. Operating founders are founders who hold positions as a CEO, chairman or ordinary board member or any combination of these. Finally, stockholders who are not founders and have been the largest firm owners over five years are referred to as long-term owners.

Our tests are based on an extensive data set that initially consists of 2671 firm-year observations, and includes 375 firms traded on the Stockholm Stock Exchange (Stockholmsbörsen), over the period 2001 - 2010.

We first introduce a model to test the relationship between firm performance and founder ownership. The results support existing literature in that founder owned firms have a positive influence on performance. Next, we decompose this model and test for different ownership

[1] We assume that descendants of the founder carry on the same values and characteristics as the original founder, and thus regard descendants as founders per se.

intervals derived from the findings of Morck et al. (1988) and Florackis et al. (2009) and find new evidence that indicate an exponential relationship between founder ownership and firm performance. Second, we examine how stockholders who are operating founders affect firm performance. Here, the findings show that they have a slightly lower positive net effect on firm performance than founders who are solely owners. Finally, we compare the performance effects of founder ownership with long-term ownership, which proves that founder owned firms perform better than firms who have long-term owners. To the best of our knowledge, this is a novel empirical finding.

The rest of the paper is organized as follows. In section 2 we derive three hypotheses from theory on founder ownership and performance. Section 3 highlights our research methodology. The empirical analysis is presented in section 4, including descriptive statistics, comparative statistics, correlation analyses and regression analyses. Finally, section 5 concludes the paper.

## 2.0 THEORY AND HYPOTHESES DEVELOPMENT

The current literature on founders' influence on firm performance is usually explained by agency theory, knowledge factors, and psychological and emotional factors. According to Morck et al. (1988), Villalonga & Amit (2006) and Florackis et al. (2009), two agency-based effects; the *incentive-alignment* and the *entrenchment effect*, explain how founders, and managers, affect firm performance.

As explained by Florackis et al. (2009), founder or managerial ownership can help align the interests of managers and stockholders. The incentive-alignment effect suggests that a founder, or managerial owner, will be more prone to constraining the consumption of perquisites. On the other hand, at higher levels of ownership, founders and managers might use their position to harvest private benefits (the entrenchment effect). The entrenchment effect could in fact lead to a negative relationship between founder ownership and performance (Florackis et al., 2009). Even so, we must note that the empirical literature includes no general consensus on the exact nature of the relationships between managerial ownership and corporate performance.

The incentive-alignment effect can be illustrated by examples from Jensen & Meckling (1976), Demsetz & Lehn (1985) and Anderson & Reeb (2003). If a founder owns a large share of

a company, his wealth will be linked to the performance of the company. This relationship gives founders strong incentives to monitor managers. The founders' long tenure also gives them superior knowledge about the firm's technology, which may improve the monitoring process (Anderson & Reeb, 2003). Furthermore, Jensen & Meckling (1976) and Demsetz & Lehn (1985) argue that a greater concentration in ownership structure leads to less shirking incentives for the owners. The benefits of shirking apply only to the shirker (to spend his time and energy on *other* matters), while its costs (poorer firm performance) affect all owners. A more concentrated ownership structure then decreases the incentives for shirking since it maximizes the cost for the shirker. Additionally, as the founder's fraction of the firm equity increases, his predicted return also increases and thus functions as an incentive to improve his effort. However, this does not necessarily mean that a reduction in the founder's equity leads to reduced effort. According to Arthurs & Busenitz (2003) a founder who has invested substantial amounts of non-financial elements such as time, energy and "sweat equity" into the firm will view his ownership level as greater than the pure financial level. Even after several rounds of funding (resulting in the founder being diluted) the founder is still likely to feel that the firm is "his own". Such a psychological ownership increases the probability that the founder will continue to offer large amounts of "sweat equity" to the firm. In these cases, a founder with influence on the firm will have a positive impact on the firm performance.

Villalonga & Amit (2006) explains that the entrenchment effect typically becomes evident if one large stockholder has a controlling position in the firm. Such owners will in many cases use their controlling position to harvest private benefits at the expense of small stockholders. Given that the stockholder is an individual e.g. a founder, rather than an institution where control is spread out among several independent stockholders, incentives to both monitor and harvest private benefits are large. Additionally, Morck et al. (1988) states that care should be taken when trying to explain the entrenchment effect only based on voting power. They suggest that the founder's tenure with the firm, status as founder, and personality, can lead to entrenchment, even when the voting power is small.

Founder, and managerial ownership, will in most cases reduce or eliminate agency conflicts between managers and owners. Thus, principal-agent theory would predict a positive effect on the value of founder management, as the incentive-alignment effect seems to dominate the

entrenchment effect.[2] As a result of the mitigation of the classic agency problem, 'founder operated firms' trade at a premium (Villalonga & Amit, 2006).

In the empirical results of Florackis et al. (2009), the net effect of executive ownership on performance varies in relation to the level of ownership. Florackis et al. (2009) find that the net effect is significantly positive when ownership is below 15%. However, the relationship in the Florackis et al. (2009) study show some fluctuations in the interval between 15 - 60% ownership and a somewhat negative net effect of executive ownership on performance above 60% ownership.[3] These results provide support for both the incentive-alignment and the entrenchment hypotheses. It seems as if the incentive-alignment effect dominates until managerial ownership reaches 15%. Between 15% and 60% the ownership-performance relationship acts somewhat fluctuating, suggesting that the alignment and entrenchment effect balance each other out. Finally, above 60% managerial ownership, the entrenchment effect appears to be presiding. These findings are supported by Anderson & Reeb (2003) who show that the firm performance first increases as founding-family ownership increases, but then decreases as the family ownership escalate.

The findings of Florackis et al. (2009) are somewhat opposed by Morck et al. (1988). Consistently, they find that performance increases as the percentage of board ownership grow from 0% to 5%. However, in the interval 5% to 25% they find that the firm performance decreases. Morck et al. (1988) argue that even if the incentive-alignment effect is present in this interval, it is dominated by the entrenchment effect. Above 25% ownership, increased ownership results in better performance. Morck et al. (1988) draws the conclusion that the entrenchment effect reaches its maximum at 25% ownership, and thus the incentive effect dominates, leading to an increase in firm performance.

Nevertheless, Jensen & Meckling (1976), Demsetz & Lehn (1985), Morck et al. (1988), Alvarez & Busenitz (2001), Anderson & Reeb (2003) and Villalonga & Amit, (2006) and Florackis et al. (2009) agree that founder owned firms most often perform better than other firms due to the positive incentive-alignment effect as opposed to the negative entrenchment effect. For this reason, we pose the following first hypothesis:

[2] Given that the founder is also an owner, which is true in most cases where we can identify a founder of the company.
[3] In this measurement interval the number of observation is low. See Figure 1 and 5 in Florackis et al. (2009).

**HYPOTHESIS 1**

*Founder owned firms perform better than other firms.*

According to Nelson (2003), operating founders often own a larger percentage of the firm than non-founder managers. This creates an economic link between the founder and his firm and reduces the need for incentive compensation. This implies that the firm spend fewer resources on costly compensation, resulting in more resources being available for value creation activities, leading to better performance. In addition to this economic link, Nelson (2003) suggests that a psychological link exists between operating founders and the firm. This link reduces the agency costs related to managers' overconsumption of perquisites, as presented by Zimmerman (1979). The reduced overconsumption of perquisites also results in better performance. On the other hand, operating founders can become entrenched, even with small stakes, because of their psychological attachment to the firm (Morck et al., 1988). This would work against the positive performance effects.

Research by Villalonga & Amit (2006) shows that operating founder firms have an estimated performance that is higher than firms with an externally hired CEO (and/or Chairman). This is equivalent with the findings of Anderson & Reeb (2003) who show that firms with 'founder CEOs' display a higher profitability and market performance than 'non-founder CEOs'. Also according to Begley (1995), 'founder CEOs' are more risk-taking and more likely to run firms with higher performance than non-CEO-founders. These findings strongly suggest that founder operated firms have higher performance than other firms.[4]

Another explanation for the superior performance of founder operated firms might be that founders have better knowledge and skills than non-founders. According to Alvarez & Busenitz (2001), founders often embody firm-specific skills and capabilities that are potential sources for competitive advantage. They suggest that founders have a cognitive ability to more readily make sense out of uncertain and complex environments. Founders are therefore learning more quickly and make faster decisions, thus making them better at recognizing new opportunities. This view is supported by Morck et al. (1988), who state that the entrepreneurial ability of the founder can be a valuable asset to the firm, at least in its early life. In addition, the founders' long tenure

[4] Founder operated firms are defined as firms who have a founder-CEO, a founder board member (including chairman) or any combination of these.

gives them superior knowledge about the firm's technology (Anderson & Reeb, 2003). These founder-specific skills may improve the performance of founder operated firms.

Following the argumentation for Hypothesis 1, founder owned firms should perform better than other firms. Since most founder operated firms are also firms where the founder is an owner, we find reason to believe that to have a real positive influence on the firm performance, the founder owner should be in an operating position. For these reasons, we pose the following second hypothesis:

**HYPOTHESIS 2**

*Firms with the combination of founder ownership and operating founder perform better than firms where the founder is solely an owner.*

Several explanatory definitions exist regarding founders. By exploring these definitions, we can analyze in which areas and characteristics founders and long-term owners coincide. Livesay (1982) defines entrepreneurship as an activity intended to initiate, maintain, and develop a profit-oriented business. Furthermore, Carland et al. (1984) distinguish between founders and non-founders by stating that founders are interested in innovative efforts focused on long-term growth, whereas non-founders pursue personal goals. Similarly, both Johnson (1990) and Miner (1990) regard growth orientation a central feature in their definition of a founder. When we consider non-founder long-term owners, their goals are likely to be in line with the definitions of Livesay (1982), Carland et al. (1984), Johnson (1990) and Miner (1990). Hence, a non-founder long-term owner wants to initiate, maintain and develop a profit-oriented business, without sacrificing innovative efforts and long-term growth.

According to He (2008), founders' long involvement in the creation and management of a firm enables them to accumulate specific knowledge about the firm. They suggest that this is one of the factors that leads to better performance for founder operated firms. An owner who follows the firm over a long period of time may accumulate the same knowledge and apply it in a beneficial way, thus also improving firm performance. As discussed by Nelson (2003), however, founders with ownership positions hold positions of higher influence more often than non-founder owners. In short, founder owners involve themselves more in the operation of the firm than non-founder owners. Thus, non-founder long-term owners will have less influence to affect

the firm performance than founder owners due to professionally hired boards and a lower level of involved ownership. By including the effects related to a founder's "sweat equity", we find reason to believe that the founder owner will outperform the non-founder long-term owner (Arthurs & Busenitz, 2003). For these reasons, we pose the following third hypothesis:

**HYPOTHESIS 3**

*Founder owned firms perform better than firms with a non-founder long-term owner.*

# 3.0 METHODOLOGY

## 3.1 VARIABLE MEASUREMENT

### 3.1.1 DEPENDENT VARIABLES

Our prime interest in this study is firm performance. Following previous literature, e.g. Adams et al. (2009), we use both an accounting based and capital market based measure of performance. Thus, we use Return on Net Operating Assets (*RNOA*) and Tobin's Q (*TQ*) as our main dependent variables. One of the main advantages of using two measures when testing for firm performance is that a firm's accounting performance can differ strongly from its market performance. Firms in the biotech industry are good examples: they have high levels of innovation and R&D, but often limited sales. As a consequence, they usually have a high market performance as measured by *TQ* relative to their accounting performance as measured by *RNOA*. By including both these measures in our analysis, we are able to more thoroughly assess if founder owners influence firm performance.

Both Gjesdal & Johnsen (1999) and Nissim & Penman (2003) argue that the purpose of profitability measurement in financial accounting is to measure the real value creation in the firm, not the value of total payouts. Furthermore, they argue that the most important aspect of profitability measurement is to make sure that the return on the capital that goes into the numerator is equal to the return on the capital that goes into the denominator. The traditional Return on Assets (ROA) measure does not satisfy this condition and must therefore be adjusted

in order to measure true firm performance.[5] According to Nissim & Penman (2003), ROA includes financial assets in its base and excludes operating liabilities, so it confuses operating and financing activities. Gjesdal & Johnsen (1999) suggest that *RNOA* is a good measure for accounting performance since it is better at estimating performance related to operations.

To calculate *RNOA*, we use the balance sheet identity and distinguish between operating and financial assets/liabilities in accordance with the method used by Dechow et al. (2008):

Total assets equal the sum of total liabilities and equity (see eq. 1). We can divide total assets into cash and operating assets, which equals the sum of debt, operating liabilities and equity (see eq. 2). Net Operating Assets (NOA), which equals operating assets less operating liabilities, is then found as debt plus equity minus cash (see eq. 3). Finally, *RNOA* is calculated as operating profit divided by NOA (see eq. 4).

Total assets = Total liabilities + Equity (eq. 1)

Cash + Operating assets = Debt + Operating liabilities + Equity (eq. 2)

NOA = Operating assets - Operating liabilities = Debt + Equity – Cash (eq. 3)

RNOA = Operating profit / NOA. (eq. 4)

Following Adams et al. (2009), we define Tobin's Q (*TQ*) as the ratio of the firm's market value of equity to its book value of equity (see eq. 5). The firm's market value is calculated as the book value of assets minus the book value of equity plus the market value of equity. The firm's book value is defined as the book value of assets.

*TQ* = (Average book value of assets - Average book value of equity + Market value of equity four months after the end of the accounting period) / Average book value of assets (eq. 5)

### 3.1.2 Independent Variables

The main independent variable for the tests of the first hypothesis is founder ownership percentage (*FoundOwn%*); measured as the founder's percentage of voting rights in the firm.

[5] The Return on Assets (Net Income / Total Assets) measure includes the return on total investments, including those belonging to creditors (debt), owners (equity) and the government (taxes). The net income reported in the financial statement only account for earnings related to equity (i.e. owners). Thus there is an inconsistency between the numerator and the denominator.

Following Morck et al. (1988) and Florackis et al. (2009), we introduce ownership interval dummies to estimate how different levels of ownership influence performance.

In the tests of the second hypothesis, our main test variable is a dummy that define whether the founder is an operating founder (*OpFound*). To be an *OpFound*, he has to be in a position of influence e.g. CEO, board member, chairman or any combination of these. Furthermore, we decompose the *OpFound* variable into board member (*FoundBoard*), CEO (*FoundCEO*), chairman (*FoundChair*), and the combinations of these (*FoundCEOBoard* and *FoundCEOChair*).

Finally, to test the third hypothesis, we introduce the founder ownership dummy variable (*FoundOwnDum*) and a long-term owner dummy variable (*LTO*). *FoundOwnDum* is equal to one when the founder owns more than zero percent in the firm, while *LTO* is equal to one when the largest owner of the firm is not a founder and has been the largest owner for more than five years.

### 3.1.3 CONTROL VARIABLES

At the firm-level, we control for size (*Size*), risk (*Risk*), age (*Age*) and the intensity of intangible assets (*IntA*).[6] *Size* is measured as the natural logarithm of the firm's average total assets. *Risk* is measured as the standard deviation of the stock return based on four different points of return within an interval of one year and three months on either side of the accounting period's end. *Age* is measured as the number of years since the founding of the firm. These three variables are meant to control for performance effects as a result of firm size, variability in stock return and survival time since founding.

*IntA* is measured as the end of year value of intangible assets, scaled by end of year value of total assets and controls for an unnatural growth in *RNOA*. Additionally, by introducing a variable for the intensity of the intangible assets in the regressions for *RNOA* and *TQ*, we control for measurement errors as a result of using balance sheet data in the presence of mergers and acquisitions. In addition, we include 17 industry effect dummy variables and nine year effect dummy variables, to control for performance effects across different industries or years.[7]

[6] Additionally, we include *FoundOwn%* as a control variable in tests of Hypothesis 2.
[7] Following Anderson & Reeb (2003), we exclude the financial industry, and thus, no dummy is needed for this industry.

**TABLE 1**
**Variable definitions**

| *Variables* | *Symbol* | *Definitions* |
|---|---|---|
| *Panel A: Depentent variables* | | |
| Return on Net Operating Assets | RNOA | Accounting performance: Ratio of operating income to net operating assets |
| Tobin's Q | TQ | Market performance: Ratio of (book value of assets - book value of equity + market value of equity) to book value of assets |
| *Panel B: Independent variables* | | |
| Founder Ownership Percentage | FoundOwn% | The founder's percentage of ownership in the firm, where 100% equals 1 |
| Florackis Ownership Interval 0-15 | FoundOwn0-15 | Equals 1 if a founder has an ownership position within the 0-15% ownership interval, and zero if not |
| Florackis Ownership Interval 15-60 | FoundOwn15-60 | Equals 1 if a founder has an ownership position within the 15-60% ownership interval, and zero if not |
| Florackis Ownership Interval 60-100 | FoundOwn60-100 | Equals 1 if a founder has an ownership position within the 60-100% ownership interval, and zero if not |
| Morck Ownership Interval 0-5 | FoundOwn0-5 | Equals 1 if a founder has an ownership position within the 0-5% ownership interval, and zero if not |
| Morck Ownership Interval 5-25 | FoundOwn5-25 | Equals 1 if a founder has an ownership position within the 5-25% ownership interval, and zero if not |
| Morck Ownership Interval 25-100 | FoundOwn25-100 | Equals 1 if a founder has an ownership position within the 25-100% ownership interval, and zero if not |
| Operating Founder | OpFound | Equals 1 if the founder has a position as CEO, a position on the board or any combination of these, and zero if not |
| Founder CEO | FoundCEO | Equals 1 if the founder is solely CEO, and zero if not |
| Founder Board | FoundBoard | Equals 1 if the founder is solely a member of the board, and zero if not |
| Founder CEO Board | FoundCEOBoard | Equals 1 if the founder is CEO and a member of the board, and zero if not |
| Founder Chairman | FoundChair | Equals 1 if the founder is solely chairman, and zero if not |
| Founder CEO Chairman | FoundCEOChair | Equals 1 if the founder is CEO and chairman, and zero if not |
| Founder with Ownership | FoundOwnDum | Equals 1 if the founder is an owner, and zero if not |
| Long Term Owner | LTO | Equals 1 if the largest owner of the firm has been the largest owner for more than five years, and zero if not |
| *Panel C: Control varables* | | |
| Firm Size | Size | Natural logarithm of average total assets |
| Firm Age | Age | The number of years since the founding of the firm |
| Firm Risk | Risk | The standard deviation of the stock return based on four different points of return within an interval of one year and three months on either side of the accounting period's end |
| Intangible Assets | IntA | The end of year value of intangible assets scaled by the end of year value of total assets |
| Year effects | Year | Nine year dummy variables set for the ten-year sample period |
| Industry effects | Industry | Seventeen industry dummy variables set for eighteen industries (excluding the financial industry) |

## 3.2 RESEARCH MODELS

### 3.2.1 HYPOTHESIS 1

For Hypothesis 1, we first perform an OLS-regression to estimate how *FoundOwn%* influences performance.[8] The *FoundOwn%* coefficients in regression models (1) and (4), $\alpha_1$ and $\varepsilon_1$, represent the change in performance as a consequence of a change in ownership. If a positive (negative) coefficient is observed, we interpret this as if founder ownership influences performance positively (negatively). Thus, the incentive-alignment effect is stronger (weaker) than the entrenchment effect as the founder's ownership increases.

[8] The regression models (1 - 6) for Hypothesis 1 are presented in Table 7 in Section 4.5.

Additionally, we run OLS-regressions to estimate performance with the intervals from Florackis et al. (2009) as independent variables. The ranges of the intervals are respectively 0 - 15%, 15 - 60% and 60 - 100% as illustrated in regression models (2) and (5). We also run similar regressions for performance with intervals from Morck et al. (1988) that range from 0 - 5%, 5 - 25% and 25 - 100% as illustrated in regression models (3) and (6). An ownership interval variable is defined as 1 when a founder has an ownership position within the respective interval. As a consequence, the ownership interval coefficients measure how owners within that interval influence performance.

The above ownership intervals might seem arbitrary, but are chosen to test whether the observed impact of the entrenchment and incentive-alignment effects on performance at specific levels of ownership (c.f. Florackis et al. (2009) and Morck et al. (1988)). Our result may provide support to either one or both of their findings. By examining where the results of the regressions on the different intervals align, we can present some general predictions of the relationship between founder ownership and the entrenchment and incentive-alignment effect.

### 3.2.2 HYPOTHESIS 2

When testing for Hypothesis 2, we run an OLS-regression on a sub-sample where we only include founder owners to estimate how operating founders (*OpFound*) influence performance.[9] The coefficients in regression models (7) and (9) in Table 8, $\pi_1$ and $\varphi_1$, measures how operating founders with ownership influence performance relative to non-operating founders with ownership. A positive (negative) coefficient indicates that the incentives of a founder owner in an operating position, and his ability to utilize skills and influence decisions, contribute to increased (decreased) firm performance. Also, by controlling for *FoundOwn%*, the test takes into account the potential added value of different levels of ownership. Consequently, if the magnitudes of the estimated size of the coefficients for the independent variables for *OpFound* ($\pi_1$ and $\varphi_1$) are positive, we accept Hypothesis 2.

Finally, regression models (8) and (10) in Table 8 examines how founder owners in operating positions, e.g. CEO, board member, chairman, or any combination of these, impact corporate performance.

[9] The regression models (7 - 10) for Hypothesis 2 are presented in Table 8 in Section 4.6.

### 3.2.3 HYPOTHESIS 3

To test Hypothesis 3 we perform an OLS-regression that estimates how founder owners and long-term owners influence firm performance.[10] We first compare how founder owners and long-term owners perform in general.[11] The dummy variable *FoundOwnDum* equals 1 when a founder has ownership in the firm. The *LTO* variable is equal to 1 when the largest owner of the firm is not a founder, and has been the largest owner for five years or more.

The coefficients, $\psi_1$ ($\kappa_1$) and $\psi_2$ ($\kappa_2$), in regression models (11) and (13) describe how founder owners and long-term owners influence *RNOA* (*TQ*) respectively. To test for Hypothesis 3, we thus have to examine whether $\psi_1$ ($\kappa_1$) and $\psi_2$ ($\kappa_2$) are different.

Second, we run another regression on a sub-sample to directly test whether founder owners perform better than long-term owners. By excluding the *LTO* variable, we take into account the possibility of multicollinearity as a result of a negative correlation between *LTO* and *FoundOwnDum*.[12] If the estimated coefficients of the dummy variable *FoundOwnDum* ($\mu_1$ and $\tau_1$) in regression models (12) and (14) are positive, we have indeed demonstrated that founder owned firms perform better than firms with a non-founder long-term owner, and Hypothesis 3 can be accepted.

## 3.3 SAMPLE FORMATION

The empirical tests are conducted using financial statements data and stock prices data from publicly listed companies in Sweden from 2001 to 2010, gathered by Ph.D. Mattias Hamberg, who is an associate professor at the Norwegian School of Economics. The data set originally consists of 375 firms and 2,671 firm-year observations.

[10] The regression models (11 - 14) for Hypothesis 3 are presented in Table 9 in Section 4.7.
[11] Since we lack data for long-term ownership percentage (LTO%), we have chosen not to use *FoundOwn%* percentage or LTO% as independent or control variables in the tests for Hypothesis 3.
[12] The correlation between *LTO* and *FoundOwnDum* is -0.44.

### 3.3.1 DATA CLEANING

In accordance with Anderson & Reeb (2003) we exclude banks due to the difficulty in calculating *TQ* for banks.[13] We also exclude firms not domiciled in Sweden and those not reporting in Swedish kronor. In the process of cleaning the data set a total of 499 firm-year observations were excluded because of missing data, which leaves us with 2,172 firm-years before trimming.

We decided to include a small amount of observations where the accounting period is longer than one year. We also decided to include firms in the first year they are listed although this means that stock returns have to be estimated on the basis of a shorter period than 12 months. None of these choices are likely to alter the bulk of our results.

### 3.3.2 BIAS CONSIDERATION

We have considered both hindsight bias and survival bias during our data selection process. Hindsight bias means that the information used should be available to the investors at the time an observation was made. Avoiding this bias has been an especially important consideration in our study. For that reason we have used market values four months after the end of the accounting period and returns estimated from three months after the accounting period ends, and continuing either 365 days or until the company's last day of trading.

Survival bias arises when a researcher on purpose selects a population that has survived throughout the studied time- period and excludes the non-survivors. The appropriate procedure is to observe firms at one point in the past, and then follow them throughout the time period of concern. If they fall out of the sample during the sample period then we just exclude them on an "on the go" basis.

Furthermore, studies which relate themselves to founder ownership, control, and management can be prone to self-selection biases (Villalonga & Amit, 2006). Because all three elements are likely an outcome of endogenous decisions, the observed relation between each of them and firm value may be subject to alternative interpretations to value creation or destruction according to Villalonga & Amit (2006). For instance, when information asymmetries exist, founders may have incentives to reduce their equity stake if they believe their stock is

[13] We remove all observations with industry code 42 (Banks) from our initial data set.

overvalued or they foresee a substantial loss in value. Following Villalonga & Amit (2009), if this is the case, relationships we find between founder ownership and firm performance could be subject to a reverse causality interpretation.

### 3.3.3 DATA TRIMMING

The data set has been trimmed to control for outliers. Outliers are extreme observations that appear to be inconsistent with the rest of the data set. While stock returns are somewhat skewed, they should get fairly normal after trimming. Accounting information, on the other hand, tend to be less normally distributed. Possible consequences of not controlling for outliers could anyway be that the average of the sample becomes unrepresentative, the standard deviation increases and that the power of statistical tests goes down. Outliers can be identified by a graphical interpretation of the data.

We trim separately on both *RNOA* and *TQ* at +1 and -1 to eliminate the influence of extreme outliers and to better satisfy the assumptions for linear regression. A total number of observations equal to 2% of each data set are removed.[14] After trimming we were left with 2,128 firm-year observations.

We experienced that the standard error, kurtosis and skewness for all the three components improved significantly after trimming. The results are summarized in Table 2 underneath.

The standard deviation, which is a measure of dispersion, has decreased for all variables. The skewness is a measure of the asymmetry of the probability distribution and a skewness level outside the interval -0.5 < Skewness < 0.5 is a good benchmark for suspecting skewness (Foster, 1986). Accouning and performance measures are skewed by nature, but should get fairly normal after trimming. As we can see in the second and fourth column in Table 2, our data fit the assumptions of linear regression better after trimming, but they are still slightly skewed. This skewness could weaken regression results somewhat. However, the absolute skewness from before to after trimming is improved remarkably for *TQ*.

[14] We operate one data set after trimming per dependent variable. Thus, we have one data set for *RNOA* and one for *TQ*.

**TABLE 2**
**Change in Standard Deviation, Skewness and Kurtosis from cleaned data to trimmed data.**

| | *RNOA* | | *TQ* | |
|---|---|---|---|---|
| | *Before* | *After* | *Before* | *After* |
| Mean | 0.04 | 0.04 | 1.59 | 1.82 |
| Standard Deviation | 3.15 | 0.55 | 6.87 | 1.39 |
| Kurtosis | 401.46 | 12.42 | 549.06 | 8.47* |
| Skewness | 2.17** | -1.74** | -20.69 | 2.34** |

* -5.0 < Skewness < 5.0 or -10 < Kurtosis < 10

** -2.5 < Skewness < 2.5 or -5 < Kurtosis < 5

*** -0.5 < Skewness < 0.5 or -1 < Kurtosis < 1

The kurtosis measures the "thickness" of the tales (Foster, 1986). Kurtosis is zero under the normal distribution, and a kurtosis level outside the interval – 1 < Kurtosis < 1 is a good rule of thumb for suspecting "fat tails". The kurtosis has been reduced by more than 385 points for *RNOA* and more than 535 points for *TQ*. Hence, trimming has improved the data to better fit the assumptions necessary to run basic statistics.[15]

### 3.3.4 SAMPLES

We use the whole sample of 2,128 firm-year observations to test Hypothesis 1. To test Hypothesis 2, we exclude all observations where a founder does not exist and where founders are not owners, leaving us with a total of 993 firm-year observations. In the testing of Hypothesis 3, we exclude all observations where we do not have a founder owner or long-term owner, leaving us with a total of 1,377 firm-year observations.

[15] Accounting information is considerably less normally distributed than stock returns and one would normally not expect the descriptive statistics to perfectly fit the basic assumptions of linear regression.

# 4.0 EMPIRICAL ANALYSIS

## 4.1 DESCRIPTIVE STATISTICS

**TABLE 3**
**Number of observations and average RNOA and Tobin's Q for the different categories.**

| | *n* | *%* | *Mean RNOA* | *Mean TQ* |
|---|---|---|---|---|
| *Panel A: Total Sample Overview* | | | | |
| Sample 1: Full Sample | 2128 | 100% | 0.038 | 1.823 |
| Sample 2: FoundOwnDum | 993 | 46.7 % | 0.011 | 2.038 |
| Sample 3: FoundOwnDum + LTO | 1,377 | 64.7 % | 0.034 | 1.900 |
| *Panel B: Ownership Intervals Observations* | | | | |
| Florackis intervals | | | | |
| FoundOwn 0-15% | 272 | 12.8 % | -0.321 | 2.291 |
| FoundOwn 15-60% | 500 | 23.5 % | 0.080 | 1.922 |
| FoundOwn 60-100% | 221 | 10.4 % | 0.265 | 1.988 |
| Morck intervals | | | | |
| FoundOwn 0-5% | 116 | 5.5 % | -0.312 | 2.180 |
| FoundOwn 5-25% | 289 | 13.6 % | -0.157 | 2.220 |
| FoundOwn 25-100% | 588 | 27.6 % | 0.158 | 1.921 |
| *Panel C: Operating Founder Observations** | | | | |
| OpFound | 814 | 38.3 % | 0.010 | 1.917 |
| FoundCEO | 22 | 1.0 % | 0.097 | 1.572 |
| FoundBoard | 322 | 15.1 % | -0.074 | 2.003 |
| FoundCEOBoard | 201 | 9.4 % | 0.087 | 1.984 |
| FounderChair | 214 | 10.1 % | 0.075 | 1.818 |
| FoundCEOChair | 55 | 2.6 % | -0.068 | 1.695 |
| *Panel D: Long Term Owner Observations* | | | | |
| LTO | 384 | 18.0 % | 0.095 | 1.538 |

The number of observations is based on the the RNOA data set. The observations for the TQ data set does not differ much however. The RNOA and TQ mean values are based on the RNOA data set and the TQ data set respectively.

*The descriptive data for OpFound are based on the FoundOwnDum sample. The sub-categories for founder operative are all mutually exclusive observations. Accordingly, their sum is equal to the operating founder variable. All other descriptive data are calculated from the main sample of 2128 observations.

Table 3 gives a general overview of how many founder, sub-category founder and long-term owner observations that are observed in our data sets. Panel A shows that 993 of the 2,128 firm-year observations (46.7%) have a founder with some sort of ownership in the firm. In line with

the expectations from Hypothesis 1, the means of *RNOA* (0.038) and *TQ* (1.823) are positive. However, the mean *RNOA* (0.038) for the full sample is larger than the mean *RNOA* (0.011) for sample two, where we only include founder owners. This somewhat contradicts Hypothesis 1, but we should keep in mind that *RNOA* and *TQ* are not industry mean adjusted. This proves the need for tests using linear regression with industry effect control variables.

In Panel B in Table 3, we have summarized the number of founder owners included in each of the ownership intervals that we use in our regressions later on. The means of *RNOA* and *TQ* for the different intervals imply the same pattern as described later in Table 6.

Panel C in Table 3 display that 814 observations from sample two, where only founder owners are included, have a founder in an operating position e.g. CEO, a position on the board, or a combination of these. The observations related to the founder operating positions are binomial and mutually exclusive. In descending magnitude, the number of observations is 322 for founder board members, 214 for founder chairmen[16], 201 for combined founder-CEO board members, 55 for combined founder-CEO chairmen and 22 for founder-CEOs. The low number of observations for *FoundCEO* and *FoundCEOChair* might result in weak statistical significance in the statistical tests.

Finally, Panel D in Table 3 shows that 18% of the data set consists of long-term owners who are not founders and have held their majority positions continuously for more than five years.

## 4.2 Comparative Descriptive Statistics

Table 4 presents comparative descriptive statistics for founder and non-founder owned firms. The table's third column shows p-values from two-tailed t-tests to reject the null hypothesis of equal means across these two groups.

In Panel A of Table 4 we report the means of the performance variables *RNOA* and *TQ*. In this univariate analysis, we find that *RNOA* and TQ seems to be significantly different for founder owned and non-founder owned firms. There are tendencies indicating that the performance for *TQ* in founder owned firms is higher than non-founder owned firms. However,

[16] Founder chairmen are also board members, but are not included in the founder board member variable, since each founder operating variable is mutually exclusive.

the conflicting tendency for *RNOA* proves once again the need for linear regressions controlled for industry effects.

**TABLE 4**
**Comparative descriptive data for Founder-owned firms and Non-founder-owned firms**

| | *Founder-owned firms* | *Non-founder-owned firms* | *T-test* |
|---|---|---|---|
| | *Mean* | *Mean* | *P-value* |
| *Panel A: Performance Variables* | | | |
| RNOA | 0.011 | 0.061 | 0.039 |
| TQ | 2.038 | 1.633 | 0.000 |
| *Panel B: Firm Characteristics* | | | |
| Size | 6.814 | 7.888 | 0.000 |
| Age | 49.257 | 68.411 | 0.014 |
| Risk | 0.431 | 0.380 | 0.004 |
| IntA | 0.161 | 0.209 | 0.000 |

All firm characteristics means in panel B are based on the data set where RNOA is trimmed.

Panel B of Table 4 compares the mean of the firm characteristics for founder owned and non-founder owned firms. As expected, all four variables are significantly different. The means of *Size*, *Age* and *IntA* seems to be smaller for founder owned firms than non-founder owned firms. Furthermore, we unsurprisingly observe higher *Risk* for founder owned firms than for other firms. Since all the firm characteristics variables are significantly different, they are suitable as control variables in the subsequent formal tests.

## 4.3 CORRELATION ANALYSIS

Table 5 presents the correlation matrix of dependent and independent variables used in the analysis for the pooled sample of both founder owned and non-founder owned firms. The table shows that a founder's ownership percentage is associated with both higher *RNOA* (t-stat: 6.10) and *TQ* (t-stat: 2.75). *OpFound* is positively associated with *TQ* (t-stat: 1.99) and negatively associated with *RNOA* (t-stat: -1.89). Additionally, *OpFound* shows a positive correlation with *FoundOwn%* (t-stat: 38.98) which indicates that many of the founders in operating positions (e.g.

CEO, board member and/or chairman) also are owners. The level of correlation leads us to suspect multicollinearity between *OpFound* and *FoundOwn%*, which could hinder attempts to explain whether it is founder ownership or operating founders that drives performance.[17] This correlation is greatly reduced in the sub-sample, as opposed to the full sample.[18] Thus, we take the possibility of multicollinearity that we observe in the full sample into account when testing for Hypothesis 2.

*OpFound* does not have a positive correlation with *RNOA;* however, *FoundCEO*, *FoundCEOBoard* and *FoundChair* show a positive association with *RNOA* (t-stats: 0.58, 1.24 and 0.67 respectively). *FoundBoard*, *FoundCEOBoard*, *FoundChair* and *FoundCEOChair* have positive correlations with ownership percentage (t-stats: 12.54, 15.93, 13.82 and 7.96 respectively) but lower than for the operating founder category as a whole. Finally, long-term owners who are not founders and have held their majority positions continuously for five years or more are associated with higher *RNOA* (t-stat: 2.25) and lower *TQ* (t-stat: -4.44).

*Size* is associated with higher *RNOA* (t-stat: 11.64) and lower *TQ* (t-stat: -9.53). *Age* is associated with higher *TQ* (t-stat: 2.20). *Risk* is negatively associated with *RNOA* (t-stat: -6.99). *IntA* is associated with higher *TQ* (t-stat: 2.57).

Since *FoundOwn%* is associated with both higher *RNOA* and *TQ*, we include a correlation matrix of how different ownership intervals are associated with performance in Table 6. Earlier in the paper, we refer to the findings of both Florackis et al. (2009) and Morck et al. (1988) who have ideas on how the entrenchment effect and the incentive-alignment effect affect performance at varying points of ownership. We use their respective ownership intervals to analyze which of the two studies our data is most similar to.

[17] We suspect multicollinearity between variables when the correlation coefficient is larger than 0.40. (Also see Section 3.3.2.)

[18] The correlation between *OpFound* and *FoundOwn%* in the full sample is 0.65 (see Table 5). However, in the sub-sample used to test for Hypothesis 2, the correlation is 0.20.

**TABLE 5**
**Correlation Matrix**

| | | *1* [§] | *2* [§] | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* | *14* | *15* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RNOA | 1 | | | | | | | | | | | | | | |
| 2 | TQ | 0.01 | 1 | | | | | | | | | | | | | |
| 3 | FoundOwn% | 0.13*** | 0.06*** | 1 | | | | | | | | | | | | |
| 4 | FoundOwnDum | -0.04* | 0.15*** | 0.72*** | 1 | | | | | | | | | | | |
| 5 | OpFound | -0.04* | 0.04** | 0.65*** | 0.79*** | 1 | | | | | | | | | | |
| 6 | FoundCEO | 0.01 | -0.02 | 0.07*** | 0.08*** | 0.14***[†] | 1 | | | | | | | | | |
| 7 | FoundBoard | -0.08*** | 0.04** | 0.26*** | 0.40***[†] | 0.54*** | -0.05** | 1 | | | | | | | | |
| 8 | FoundCEOBoard | 0.03 | 0.03 | 0.33*** | 0.32*** | 0.41***[†] | -0.04* | -0.15*** | 1 | | | | | | | |
| 9 | FoundChair | 0.01 | 0.00 | 0.29*** | 0.35*** | 0.41*** | -0.04* | -0.15*** | -0.11*** | 1 | | | | | | |
| 10 | FoundCEOChair | -0.03 | -0.02 | 0.17***[†] | 0.17***[†] | 0.20*** | -0.02 | -0.07*** | -0.05**[†] | -0.05**[†] | 1 | | | | | |
| 11 | LTO | 0.05** | -0.10*** | -0.32*** | -0.44*** | -0.39*** | -0.05** | -0.21*** | -0.16*** | -0.16*** | -0.08*** | 1 | | | | |
| 12 | Size | 0.24*** | -0.20*** | -0.03 | -0.28***[†] | -0.19*** | -0.01 | -0.09*** | -0.14*** | -0.03 | -0.04* | 0.33*** | 1 | | | |
| 13 | Age | 0.03 | 0.05** | -0.06***[†] | -0.05** | -0.15*** | -0.02 | -0.07*** | -0.07*** | -0.06*** | -0.04* | 0.09*** | 0.02[†] | 1 | | |
| 14 | Risk | -0.15*** | 0.03 | -0.02[†] | 0.06*** | 0.02 | 0.01 | 0.01 | 0.05** | -0.04* | 0.02 | -0.07*** | -0.13***[†] | 0.06***[†] | 1 | |
| 15 | IntA | -0.01 | 0.06** | -0.21***[†] | -0.12***[†] | -0.09***[†] | 0.03 | 0.01 | -0.06*** | -0.08*** | -0.07*** | -0.04* | -0.11*** | 0.04[†] | 0.08***[†] | 1 |

* Denote significant at 10% level

** Denote significant at 5% level

*** Denote significant at 1% level

[§] Column 1 (RNOA) and 2 (Tobin's Q) contain data from the full sample data sets where we trim on RNOA and Tobin's Q respectively. The remaining correlation columns in the correlation matrix contain descriptive data for the data set where we trim on the RNOA variable.

[†] These correlation coefficients differ from the data set where we trim on Tobin's Q. The difference is no more than 0.01 and the significance level is unchanged between the two data sets.

In Panel A of Table 6 we present ownership intervals that are derived from Florackis et al. (2009). Low levels of ownership (0 - 15 %) have a negative association with *RNOA* (t-stat: -11.89) and a positive association with *TQ* (t-stat: 6.01). This difference in correlation with performance seems somewhat odd, as we would expect them to point in similar directions. Both in the mid-range of founder ownership (15 - 60 %) and the high levels of ownership (60 - 100%), there is a positive association with both *RNOA* (t-stats: 1.97 and 6.55 respectively) and *TQ* (t-stats: 1.82 and 1.91 respectively).

In Panel B of Table 6, we show the ownership intervals from Morck et al. (1988). Very low (0 - 5%) and mid-range (5 - 25%) levels of founder ownership have a negative association with RNOA (t-stats: -7.12 and -6.54 respectively). High levels of ownership show a positive association with RNOA (t-stat: 6.29). Both very low levels of ownership (0 - 5%) and higher levels of ownership (25 - 100%) have a small positive association with TQ (t-stats: 2.88 and 2.02 respectively). Mid-range (5 - 25%) levels of ownership also have a positive association with *TQ* (t-stat: 5.26). Again, some odd differences in the correlation for *RNOA* and *TQ* with performance are observed.

**TABLE 6**
**Correlation Matrix Florackis & Morck Intervals**

| | *RNOA* | *TQ* |
|---|---|---|
| *Panel A: Ownership Intervals - Florackis* | | |
| FoundOwn 0-15% | -0.250*** | 0.129*** |
| FoundOwn 15-60% | 0.043** | 0.039* |
| FoundOwn 60-100% | 0.141*** | 0.041* |
| *Panel B: Ownership Intervals - Morck* | | |
| FoundOwn 0-5% | -0.153*** | 0.062*** |
| FoundOwn 5-25% | -0.140*** | 0.113*** |
| FoundOwn 25-100% | 0.135*** | 0.044** |

* Denote significance at 10% level
** Denote significance at 5% level
*** Denote significance at 1% level
The Florackis and Morck values signals the ownership intervals derived from Florackis et al. (2009) and Morck et al. (1988) in relation to the incentive alignment effect and the entrenchment effect.

When comparing our ownership intervals and performance correlations with the ideas presented by Florackis et al. (2009) and Morck et al. (1988), we find more similarities with

Morck et al. (1988) who state that at high levels of ownership the incentive-alignment effect overshadow the entrenchment effect. Thus, we should expect higher performance at higher levels of founder ownership. Correlations at lower and mid-range levels of ownership do not have a distinct pattern and cannot directly be associated with the ideas derived by either Morck et al. (1988) or Florackis et al. (2009).

## 4.4 Control Variable Analysis

The coefficients for the control variables mentioned in this analysis can be found in Table 7, Table 8 and Table 9 below. The coefficients for *Size*, *Age* and *IntA* show the same positive association in all the regressions for *RNOA*. It seems as if larger and older firms have better accounting performances than other firms. Also firms with a large amount of intangible assets (*IntA*) should report higher *RNOA* than other firms, since intangible assets are not included in operating assets. Risk has a negative influence on *RNOA*.[19]

Also in our regressions for *TQ*, all the respective control variable coefficients show the same patterns. *Age* and *Risk* have a positive influence on *TQ*. Logically, older firms and firms with a higher variation in their market returns give a higher market performance. *Size* and *IntA* have a negative association with *TQ*. Since the *TQ* measure is the sum of market value of equity and book value of debt divided by book value of assets, our size measure, which is based on book value of assets, will naturally influence *TQ* negatively as *Size* increases. Finally, since *TQ* is a market performance measure, intangible assets, e.g. goodwill as a result of a merger, is already included in the market valuation of the firm. Since the market usually values *IntA* lower than its book value, the negative relationship between *IntA* and *TQ* is reasonable.

## 4.5 Test of Hypothesis 1

Our first hypothesis is that firms owned by founders perform better than other firms. Table 7 summarizes the tests for Hypothesis 1. Column one shows the regression of *RNOA* on founder ownership percentage. The coefficient of founder ownership percentage, $\alpha_1$, is 0.312 (t-stat: 6.78) and indicates that higher founder ownership improves accounting profitability (i.e., *RNOA*). This

[19] One should keep in mind that our measure of risk is not related to accounting performance, but to market returns.

result supports the prediction in Hypothesis 1. Additionally, column four displays the regression of *TQ* on founder ownership. The ownership percentage coefficient, $\varepsilon_1$, is 0.508 (t-stat: 4.62) and implies that greater founder ownership is related to a larger *TQ* and thereby improved market performance. Consequently the result in column five coincides with the outcome of the *RNOA* regression and thereby confirms the prediction in Hypothesis 1.

As a conclusion, Table 7 provides evidence in support of Hypothesis 1. In line with the hypothesis, founder owned firms have a positive influence on performance and thus, the incentive-alignment effect should overshadow the entrenchment effect. For these reasons, we accept Hypothesis 1.

**TABLE 7**
**Results from Ordinary Least Square Regressions of Return On Net Operating Assets and Tobin's Q on Founder Ownership (t-statistics in parenthesis)**
**Sample Consists of 2128 Firm-years from 2001 to 2010**

$$RNOA(1)_t = \alpha_0 + \alpha_1 FoundOwn\%_t + \alpha_2 Size_t + \alpha_3 Age_t + \alpha_4 Risk_t + \alpha_5 IntA_t + \upsilon_t$$
$$RNOA(2)_t = \beta_0 + \beta_1 FoundOwn0\text{-}15_t + \beta_2 FoundOwn15\text{-}60_t + \beta_3 FoundOwn60\text{-}100_t + \beta_4 Size_t + \beta_5 Age_t + \beta_6 Risk_t + \beta_7 IntA_t + \upsilon_t$$
$$RNOA(3)_t = \gamma_0 + \gamma_1 FoundOwn0\text{-}5_t + \gamma_2 FoundOwn5\text{-}25_t + \gamma_3 FoundOwn25\text{-}100_t + \gamma_4 Size_t + \gamma_5 Age_t + \gamma_6 Risk_t + \gamma_7 IntA_t + \upsilon_t$$

$$Tobin's\ Q(4)_t = \varepsilon_0 + \varepsilon_1 FoundOwn\%_t + \varepsilon_2 Size_t + \varepsilon_3 Age_t + \varepsilon_4 Risk_t + \varepsilon_5 IntA_t + \varepsilon_t$$
$$Tobin's\ Q(5)_t = \eta_0 + \eta_1 FoundOwn0\text{-}15_t + \eta_2 FoundOwn15\text{-}60_t + \eta_3 FoundOwn60\text{-}100_t + \eta_4 Size_t + \eta_5 Age_t + \eta_6 Risk_t + \eta_7 IntA_t + \upsilon_t$$
$$Tobin's\ Q(6)_t = \theta_0 + \theta_1 FoundOwn0\text{-}5_t + \theta_2 FoundOwn5\text{-}25_t + \theta_3 FoundOwn25\text{-}100_t + \theta_4 Size_t + \theta_5 Age_t + \theta_6 Risk_t + \theta_7 IntA_t + \upsilon_t$$

| | *RNOA (1)* | *RNOA (2)* | *RNOA (3)* | *Tobin's Q (4)* | *Tobin's Q (5)* | *Tobin's Q (6)* |
|---|---|---|---|---|---|---|
| Constant | -0.445 (-4.91)*** | -0.403 (-4.39)*** | -0.400 (-4.34)*** | 1.116 (5.08)*** | 1.028 (4.60)*** | 1.019 (4.55)*** |
| Independent variables | | | | | | |
| FoundOwn% | 0.312 (6.78)*** | | | 0.508 (4.62)*** | | |
| *Florackis intervals* | | | | | | |
| FoundOwn 0-15% | | -0.149 (-3.92)*** | | | 0.233 (2.53)** | |
| FoundOwn 15-60% | | 0.119 (4.14)*** | | | 0.214 (3.08)*** | |
| FoundOwn 60-100% | | 0.210 (5.44)*** | | | 0.461 (5.02)*** | |
| *Morck intervals* | | | | | | |
| FoundOwn 0-5% | | | -0.136 (-2.61)*** | | | 0.247 (1.98)*** |
| FoundOwn 5-25% | | | -0.037 (-1.04) | | | 0.259 (2.98)*** |
| FoundOwn 25-100% | | | 0.166 (6.07)*** | | | 0.299 (4.54)*** |
| Control variables | | | | | | |
| Size | 0.047 (6.93)*** | 0.042 (6.07)*** | 0.043 (6.18)*** | -0.063 (-3.85)*** | -0.053 (-3.18)*** | -0.052 (-3.13)*** |
| Age | 0.000 (1.68)* | 0.000 (1.54) | 0.000 (1.81)* | 0.001 (3.49)*** | 0.001 (3.44)*** | 0.001 (3.39)*** |
| Risk | -0.144 (-4.88)*** | -0.135 (-4.61)*** | -0.139 (-4.69)*** | 0.143 (1.98)** | 0.139 (1.92)* | 0.134 (1.85)* |
| IntA | 0.158 (2.40)** | 0.148 (2.26)** | 0.157 (2.39)** | -0.512 (-3.23)*** | -0.506 (-3.20)*** | -0.511 (-3.21)*** |
| Year | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry | Yes | Yes | Yes | Yes | Yes | Yes |
| $R^2$-adjusted | 17.1% | 18.0% | 17.4% | 24.4% | 24.7% | 24.4% |
| N | 2128 | 2128 | 2128 | 2128 | 2128 | 2128 |

* Denote significance at 10% level
** Denote significance at 5% level
*** Denote significance at 1% level
T-statistic is denoted in brackets

To further examine the relationship between founder ownership and performance we look at how the different ownership intervals are associated with performance. We select ownership intervals that are in line with the ideas presented by Florackis et al. (2009) and Morck et al. (1988). The intervals they derive are based on hypotheses on how the entrenchment effect and the incentive-alignment effect affect performance at varying points of ownership.

The regressions of performance on the founder ownership intervals are summarized in Table 7. Column two shows the regression for *RNOA* on the ownership intervals derived through Florackis et al. (2009). The coefficient on low ownership levels, $\beta_1$, is -0.149 (t-stat: -3.92), which indicates a negative relationship between *RNOA* and ownership. This would imply that the entrenchment effect dominates the incentive-alignment effect at low levels of ownership. In contrast, the coefficient on medium levels of ownership, $\beta_2$, is 0.119 (t-stat: 4.14) and thus positive. The same applies for the coefficient on high levels of ownership, $\beta_3$, which is 0.210 (t-stat: 5.44). This signals that the incentive-alignment effect overshadows the entrenchment effect at both medium and high levels of ownership. Furthermore, $\beta_3$ is larger than $\beta_2$, which implies that the performance effect is greater at higher ownership levels.

In addition, column five displays the corresponding regression for *TQ*. The coefficient on low ownership levels, $\eta_1$, is 0.233 (t-stat: 2.53) and signals a positive relation between *TQ* and founder ownership. Our interpretation is that the incentive-alignment effect dominates the entrenchment effect at low levels of ownership. The coefficient on medium levels (15 - 60%) of ownership, $\eta_2$, is 0.214 (t-stat: 3.08). Similarly, the coefficient on high levels (60 - 100%) of ownership, $\eta_3$, is 0.461 (t-stat: 0.461). Thus, like the regression for *RNOA*, the incentive-alignment effect dominates the entrenchment effect at medium (15 - 60%) and high (60 - 100%) ownership levels. As $\eta_3$ is larger than $\eta_2$, the performance effect is larger for higher levels of ownership, in accordance with the results of the regression of *RNOA*. However, it seems as if the market performance, *TQ*, remains high at low (0 - 15%) levels of founder ownership even though the accounting performance, *RNOA*, is negative.

Column three shows the regression for *RNOA* on the ownership intervals derived through Morck et al. (1988). The coefficient at low levels of ownership, $\gamma_1$, is -0.136 (t-stat: -2.61) and support the results of the regression on low level interval derived through Florackis et al. (2009). While, the coefficient for medium levels of ownership, $\gamma_2$, is slightly negative (-0.037), it is not

significant. Finally, the coefficient at high level of ownership, $\gamma_3$ is 0.166 (t-stat: 6.07), which indicates a positive association with *RNOA*.

The coefficients of the corresponding regression for *TQ* in column six displays a similar pattern as the regression based on the intervals derived through Florackis et al. (2009) on both medium and high levels of ownership. However, the regression in column six indicates that *FoundOwn0-5%* has a positive influence on *TQ*. Again, it seems as if the market performance, *TQ*, remains high at low levels (0 - 5% and 5 - 25%) of founder ownership even though the accounting performance, *RNOA*, is negative.

By combining the insights gained from the regressions in columns two, three, five and six, we can confirm that the association between founder ownership and performance is positive at levels above 15%. At levels lower than 15%, founder owners seem to have a negative influence on *RNOA*.[20] However, the real effect of founder ownership on performance at founder ownership levels under 15% is indecisive, as *TQ* is positively influenced by founder ownership at these levels.

All in all, the regressions on different ownership intervals confirm the findings of the regressions from equation one and four (in Table 7) and supports Hypothesis 1. However, instead of a direct linear relationship between founder ownership percentage and performance, we find evidence that indicate a somewhat more exponential relationship. Our regression results demonstrate that the coefficients of the ownership intervals are larger at higher levels of ownership. Thus, the incentive-alignment effect increases its supremacy over the entrenchment effect as the founder ownership percentage rise.

Our findings from Hypothesis 1 give some new and important general insights. When comparing our results with the research of Villalonga & Amit (2006), who find that founder-CEO firms trade at a premium relative to other firms, we observe that all founder owned firms trade at a premium relative to other firms.[21]

Additionally, our findings support Arthurs & Busenitz (2003) in that a reduction in founder equity does not directly lead to reduced effort. We show that founder owned firms have positive influence on accounting and market performance at ownership levels above 15%. This effect is

[20] However, the real cutoff can in fact be even lower than 15%.
[21] Positive coefficients for founder ownership percentage and intervals in all the *TQ*-regressions are presented in Table 7.

most likely related to the founder's psychological attachment to his firm, also known as "sweat equity", which leads to an increased effort for the founder.

As time passes, however, the founder's firms are subject to even more external funding, issues and IPO's, and founder ownership might fall below 15%. Interestingly, we find that the accounting performance, *RNOA*, at these low levels is negative. It seems as if the founder's incentives not to shirk and harvest private benefits at high ownership levels are lost when a certain amount of ownership or psychological attachment is gone.

Furthermore, we find that the market performance, *TQ*, is positive even when founder ownership falls below 15%. This means that a founder owned firm, which has a negative relationship with accounting performance actually still trade at a "founder premium", i.e. the market still values the founder owned firm higher than other firms even though their financial statements show that they have a weaker performance.

## 4.6 Test of Hypothesis 2

Our second hypothesis is that firms with the combination of founder ownership and operating founder perform better than firms where founders are solely owners. First, we analyze how operating founders with ownership influence firm performance compared to non-operating founders who are owners. Second, we split up the operating founder variable into operating positions e.g. CEO, board member or chairman.

The tests for Hypothesis 2 are summarized in Table 8. Column one in Table 8 demonstrates the regression for *RNOA* (7) on founder operating ownership. While the coefficient of the *OpFound* variable, $\pi_1$, is negative (-0.062), it is not significant. But given that it is negative, we suspect that founders with dual operating and ownership positions have a somewhat lower influence on *RNOA* than founders who are simply owners. Moreover, the regression for *TQ* (9) in column three proves the same relationship as observed for *RNOA* above. The coefficient $\varphi_1$ is -0.345 (t-stat: -2.54). These findings challenge Hypothesis 2 and suggest that firms that are owned and operated by the same founder do not perform better than founder owned, but not founder operated, firms.

The control variable, *FoundOwn%*, indicates that most of the positive performance effect of being a founder owner can be related to increasing levels of ownership. In that matter, it seems

as if the incentive-alignment effect still overshadow the entrenchment effect as the founder operating ownership percentage rise. However, founder owners who also take on excess responsibilities in the firm through operating positions seems to be more entrenched.

**TABLE 8**
**Results from Ordinary Least Square Regressions of Return On Net Operating Assets and Tobin's Q on Founder Ownership and Operating Founder (t-statistics in parenthesis). Main Sample Consists of 2128 Firm-years from 2001 to 2010**

$$RNOA\,(7)_t = \pi_0 + \pi_1 OpFound_t + \pi_2 FoundOwn\%_t + \pi_3 Size_t + \pi_4 Age_t + \pi_5 Risk_t + \pi_6 IntA_t + \upsilon_t$$

$$RNOA\,(8)_t = \rho_0 + \rho_1 FoundCEO_t + \rho_2 FoundBoard_t + \rho_3 FoundCEOBoard_t + \rho_4 FoundChair_t + \rho_6 FoundCEOChair_t + \rho_7 FoundOwn\%_t + \rho_8 Size_t + \rho_9 Age_t + \rho_{10} Risk_t + \rho_{11} IntA_t + \upsilon_t$$

$$Tobin's\ Q\,(9)_t = \varphi_0 + \varphi_1 OpFound_t + \varphi_2 FoundOwn\%_t + \varphi_3 Size_t + \varphi_4 Age_t + \varphi_5 Risk_t + \varphi_6 IntA_t + \upsilon_t$$

$$Tobin's\ Q\,(10)_t = \chi_0 + \chi_1 FoundCEO_t + \chi_2 FoundBoard_t + \chi_3 FoundCEOBoard_t + \chi_4 FoundChair_t + \chi_6 FoundCEOChair_t + \chi_7 FoundOwn\%_t + \chi_8 Size_t + \chi_9 Age_t + \chi_{10} Risk_t + \chi_{11} IntA_t + \upsilon_t$$

| | *RNOA (7)* | *RNOA (8)* | *Tobin's Q (9)* | *Tobin's Q (10)* |
|---|---|---|---|---|
| Constant | -0.497 (-3.04)*** | -0.470 (-2.83)*** | 1.113 (2.70)*** | 1.158 (2.76)*** |
| Independent variables | | | | |
| OpFound† | -0.062 (-1.14) | | -0.345 (-2.54)** | |
| FoundCEO | | -0.031 (-0.23) | | -0.465 (-1.36) |
| FoundBoard | | -0.129 (-2.19)** | | -0.272 (-1.83)* |
| FoundCEOBoard | | 0.030 (0.45) | | -0.454 (-2.72)*** |
| FoundChair | | -0.016 (-0.25) | | -0.343 (-2.09)** |
| FoundCEOChair | | -0.136 (-1.41) | | -0.459 (-1.91)* |
| Control variables | | | | |
| FoundOwn% | 0.556 (6.03)*** | 0.511 (5.47)*** | 0.242 (1.05) | 0.302 (1.29) |
| Size | 0.032 (2.44)** | 0.036 (2.70)*** | -0.035 (-1.06) | -0.043 (-1.28) |
| Age | 0.000 (4.04)*** | 0.000 (4.02)*** | 0.000 (1.53) | 0.000 (1.52) |
| Risk | -0.175 (-3.65)*** | -0.178 (-3.72)*** | 0.180 (1.49) | 0.197 (1.62) |
| IntA | 0.238 (1.88)* | 0.254 (2.00)** | -1.170 (-3.67)*** | -0.181 (-3.69)*** |
| Year | Yes | Yes | Yes | Yes |
| Industry | Yes | Yes | Yes | Yes |
| $R^2$-adjusted | 21.1% | 21.7% | 24.4% | 24.2% |
| N | 993 | 993 | 997 | 997 |

* Denote significance at 10% level
** Denote significance at 5% level
*** Denote significance at 1% level
T-statistic is denoted in brackets
†The correlation between OpFound and FoundOwn% is 0.20

To further analyze the relationship between operating ownership and performance we decompose the operating founder variable into *FoundCEO*, *FoundBoard*, *FoundCEOBoard*, *FoundChair* and *FoundCEOChair*. All coefficients, except for *FoundCEOBoard*, show a

negative relationship with *RNOA*. However, only the coefficient for *FoundBoard* is statistically significant.

Column four in Table 8 displays the results for the regression on *TQ*. All coefficients are negative, and here, only the *FoundCEO* coefficient is not significant.

The decomposition of the operating founder variable enables us to illustrate how its components impact the performance of a firm. We find indications that every type of operating founder who is also an owner lowers the positive net effect on performance.[22] Interestingly, we do not find that any type of involvement in the firm results in additional performance effects apart from the already observed ownership effect.

Hypothesis 2 is not supported by our regression results, which gives the opposite relationship of what we expect. However, only the coefficient for *OpFound* in the main regression for *TQ* is significantly negative. For these reasons, we reject Hypothesis 2.

Our test of Hypothesis 2 somewhat surprisingly contradicts most of the theory on founders in operating positions and performance. According to our results, founders who are owners and hold operating positions influence performance slightly negatively compared to founders who are simply owners. We interpret this result as a slightly increased entrenchment effect as a consequence of increased power. These findings are in line with the research of Morck et al. (1988) who propose that the founder's psychological attachment to the firm may lead to entrenchment, even with small stakes.

However, we have to stress that the benefits of the incentive-alignment effect as a result of being a founder owner are considerably larger than both the negative performance related to the entrenchment of, owners, founder managers and board members.

As a conclusion to this discussion, our findings from Hypothesis 2 contribute with insights that illustrate how some entrenchment can occur even when all incentives point in the direction of increased effort and non-shirking. The reason for this might be attributed to several factors e.g. the founder's tenure with the firm, status and personality. Additionally, we show that the founder's incentives to influence the firm positively are related to his level of ownership, and not his position in the management or the board.

[22] However, the *RNOA*-effect as a result of *FoundCEO*, *FoundCEOBoard* and *FoundChair* are somewhat dubious as they seem to be very close to zero.

Furthermore, our discussion here is somewhat flawed because it relies on an assumption of all founders having the same personalities. Variations in founder's influence on performance will obviously be observed due to risk-aversion, culture, personality or other unquantifiable differences. Anyhow, the above discussion will give some basic guidelines to how founders think and behave based on general economic theory of rational human behavior.

## 4.5 Test of Hypothesis 3

Our third hypothesis is that firms owned by long-term oriented founders perform better than firms with other long-term oriented owners.

Column one of Table 9 presents the regression for *RNOA* on founder and long-term ownership. The coefficient for founder ownership, $\psi_1$, is 0.077 (t-stat: 2.96), while the coefficient for long-term ownership, $\psi_2$, is -0.008, but not significant. In line with our hypothesis, $\psi_1$ is significantly larger than $\psi_2$. Furthermore, in column three of Table 9 the regression results for *TQ* is illustrated. Also here the coefficient for founder ownership ($\kappa_1$ = 0.247) is significantly larger than the coefficient for long-term ownership ($\kappa_2$ = -0.128). Both regressions therefore confirm Hypothesis 3: founder owned firms perform better than firms with a large long-term owner.

Additionally, column two and four in Table 9 supports the findings above. In both these regressions we have excluded all firms not controlled by a founder or long-term owner. Thus, we only need one independent dummy variable to test Hypothesis 3. Since both $\mu_1$ and $\tau_1$ are positive and significant, we confirm that founder owned firms have a better performance than firms with a large long-term owner. Consequently, we accept Hypothesis 3.

This finding shows that founder owned firms perform better than non-founder long-term owned firms. To the best of our knowledge, this is a novel empirical finding.

The reasons for superior founder performance seems to be related to what Nelson (2003) claims to be the higher level of involvement a founder has in his firm. In addition, a long-term owner may not be able to accumulate knowledge about the firm in the same way as founder owners (He, 2008). The combination of higher accumulated knowledge and higher level of involvement seems to give the founder firm a superior advantage. Another effect that can contribute in explaining the founder's higher performance rate is "sweat equity", as presented by

Arthurs & Busenitz (2003), which leads him to have a stronger psychological attachment to the firm than the non-founder.

**TABLE 9**
**Results from Ordinary Least Square Regressions of**
**Return On Net Operating Assets and Tobin's Q on Founder Ownership**
**and Long Term Ownership (t-statistics in parenthesis)**
**Main Sample Consists of 2128 Firm-years from 2001 to 2010**

$$RNOA\ (11)_t = \psi_0 + \psi_1 FoundOwnDum_t + \psi_2 LTO_t + \psi_3 Size_t + \psi_4 Age_t + \psi_5 Risk_t + \psi_6 IntA_t + \upsilon_t$$
$$RNOA\ (12)_t = \mu_0 + \mu_1 FoundOwnDum_t + \mu_2 Size_t + \mu_3 Age_t + \mu_4 Risk_t + \mu_5 IntA_t + \upsilon_t$$

$$Tobin's\ Q\ (13)_t = \kappa_0 + \kappa_1 FoundOwnDum_t + \kappa_2 LTO_t + \kappa_3 Size_t + \kappa_4 Age_t + \kappa_5 Risk_t + \kappa_6 IntA_t + \upsilon_t$$
$$Tobin's\ Q\ (14)_t = \tau_0 + \tau_1 FoundOwnDum_t + \tau_2 Size_t + \tau_3 Age_t + \tau_4 Risk_t + \tau_5 IntA_t + \upsilon_t$$

| | *RNOA (11)* | *RNOA (12)* | *Tobin's Q (13)* | *Tobin's Q (14)* |
|---|---|---|---|---|
| Constant | -0.411 (-4.41)*** | -0.428 (-3.37)*** | 1.004 (4.49)*** | 0.703 (2.17)** |
| Independent variables | | | | |
| FoundOwnDum | 0.077 (2.96)*** | 0.087 (2.31)** | 0.247 (3.96)*** | 0.357 (3.73)*** |
| LTO | -0.008 (0.805) | | -0.128 (-1.56) | |
| Control variables | | | | |
| Size | 0.048 (6.74)*** | 0.044 (4.85)*** | -0.044 (-2.59)*** | -0.049 (-2.13)** |
| Age | 0.000 (1.42) | 0.000 (3.68)*** | 0.001 (3.49)*** | 0.000 (2.27)** |
| Risk | -0.148 (-4.97)*** | -0.183 (-4.73)*** | 0.128 (1.77)* | 0.198 (2.01)** |
| IntA | 0.113 (1.70)* | 0.132 (1.42) | -0.547 (-3.44)*** | -1.046 (-4.45)*** |
| Year | Yes | Yes | Yes | Yes |
| Industry | Yes | Yes | Yes | Yes |
| $R^2$-adjusted | 15.6% | 17.7% | 24.6% | 25.9% |
| N | 2128 | 1377 | 2128 | 1377 |

| *T-test of*[a] | *T-value* | *P-value* |
|---|---|---|
| $\psi_1 > \psi_2$: | 1.995** | 0.023 |
| $\kappa_1 > \kappa_2$: | 3.642*** | 0.000 |

* Denote significance at 10% level
** Denote significance at 5% level
*** Denote significance at 1% level

T-statistic is denoted in brackets

[a]The statistical test we use for equality of regression coefficients is based on the work of Paternoster et al. (1998) and Clogg et al. (1995)

# 5.0 CONCLUSIONS

In this research paper we have studied how founder owners influence firm performance. Our findings mainly show that founder owned firms have a positive influence on performance. Furthermore, when performing regressions on several ownership intervals, derived from the findings of Morck et al. (1988) and Florackis et al. (2009), we find evidence that indicate an exponential relationship between founder ownership and firm performance. Consequently, the incentive-alignment effect increases its supremacy over the entrenchment effect as the founder ownership percentage rise.

When testing how operating founders who are owners influence performance, we unexpectedly find that they have a slightly lower positive net effect on firm performance. This uncovering is interpreted as a moderately increased entrenchment effect as a result of increased power. Thus, the operating founder exploits his position, in some degree, to harvest private benefits that maximize his private utility.

Finally, we prove that founder owned firms perform better than firms who have long-term owners. Following Arthurs & Busenitz (2003), Nelson (2003) and He (2008), the superior performance of founder owners seems to be attributable to a combination a strong psychological attachment to the firm as well as higher accumulated knowledge and firm involvement.

To the best of our knowledge, our research makes three contributions to the existing literature on how founder ownership influence firm performance. First, our research support earlier and established findings that founder ownership have a positive association with firm performance. However, we present results that extensively illustrate that the relationship between founder ownership percentage and firm performance is in fact not constant or linear, but exponential. We do this in a setting that has not been studied in the past.

Second, we find reason to believe that some earlier findings that attribute firm performance to the founder's operating position could be a result of an omitted-variable bias. When we control for ownership percentage (an often omitted-variable), we find positive performance effects are mostly a result of founder ownership and not the founder's position as CEO or board member.

Finally, we contribute with a novel finding that helps clarify that there is a difference in how long-term owners and founder owners are incentivized to influence firm performance.

We mainly argue that the incentive-alignment effect and the entrenchment effect is the main driver behind the positive performance effects of founder owners. However, other factors e.g. status orientation, risk-aversion, culture, personality and other unquantifiable differences can be explanatory factors that we are not able to consider in our analysis.

In addition, there is a risk that our findings can be attributed to a self-selection bias. For instance, founders may reduce their equity stake if they believe their stock is overvalued or they foresee a substantial loss in value. If this is the case, our findings may be subject to a reverse causality interpretation.

Future research should consider doing studies that include possible omitted-variables e.g. a founder's status orientation, risk-aversion or personality traits. It will also be interesting to test how the long-term owners perform relative to founder owners when controlling for voting power in each group. Researchers could also test whether their findings are consistent with ours, when changing the definition of a founder.

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# PAPER 2: HOW DO INVOLVED OWNERS INFLUENCE DIVIDEND PAYOUT POLICIES?

## 1.0 INTRODUCTION

Under the classical dividend irrelevance theorem of Miller and Modigliani (1961), stockholders agree to the firm's dividend policy because they view dividends and capital gains as perfect substitutes. However, due to taxes, transaction costs, asymmetric information and agency costs, Miller and Modigliani's general assumptions for perfect capital markets are violated (Berk & DeMarzo, 2011). The choice of dividend policy is therefore often explained by the magnitude of these violations. When a firm generates free cash flow they have the choice of retaining the cash or paying it out to the owners. When the firm retains cash, it can invest in new projects or increase the cash reserve. By distributing cash as a dividend or stock repurchase, the firm may reduce agency costs related to holding large cash reserves and signal information about future earnings prospects.

To our knowledge, studies related to how agency costs affect large and powerful stockholders' preferences over dividends are sparse. By learning more about how different involved owners become entrenched and how this affects their dividend payout policy preferences, stakeholders will be more susceptible to understand the correct information about what owners' payout policies communicate.

Following Florackis et al. (2009), entrenched stakeholders could have incentives to harvest private benefits at the expense of the company and thereby increase agency costs. Furthermore, Farinha (2002) shows that managers who are more entrenched may adopt aggressive dividend policies. This finding is supported by Hu & Kumar (2004), who find that both the likelihood and level of payouts are positively related to factors that increase executive entrenchment levels. Both Villalonga & Amit (2006) and Wei et al. (2011) state that majority stockholders who are highly involved in the firm will act with some entrenchment. This might suggest, in line with Johnson et al. (2000) and Lee & Xiao (2004) that aggressive cash dividend policies may be a result of large and involved stockholders who become entrenched.

Following Wei et al. (2011) we employ a model consisting of both Logit and Tobit regressions to test how involved firm owners affect cash dividend payout policies. To determine the level of aggressiveness in a payout policy, we analyze both the tendency to pay cash dividends and the dividend payout ratio. Moreover, we define involved owners as large stockholders who are either founders or long-term owners. Among the founders, we distinguish between operating founders, e.g. CEOs and board members, and non-operating founders. In general, we define a founder as an individual who has created his own firm, in line with Begley & Boyd (1987).[23] Finally, we define long-term owners as individuals who are not founders and have been the largest stockholders for more than five years continuously. Should a large stockholder be unhappy with the firm's dividend policy, he has the voting power to impose costs on other parties in attempt to change the policy (Eckbo & Verma, 1994).

In our tests, we analyze how different levels of ownership involvement influence payout policy. Therefore, we define the largest firm owners who also are operating founders as having the highest level of firm involvement. They are very highly involved due to their managerial and board positions, as well as their psychological attachment as founders. Other founders, who are also the largest firm owners, are defined as having the second highest level of involvement. These owners are not managers or board members and are thus not as involved as the operating founders. However, other founders should still have some psychological attachment to the organization they founded. Finally, the largest firm owners who have been owners for more than five years are defined as long-term owners and have the third highest level of involvement. Mostly, these are only involved in the firm through their ownership tenure, and are thus not as involved as other founders. All other owners are perceived to have an equally low firm involvement. Owners who fall under one of the three highest levels of ownership involvement are referred to as involved owners.

Our tests are based on an extensive data set that initially consists of 2671 firm-year observations, and includes 375 firms traded on the Stockholm Stock Exchange (Stockholmsbörsen), over the period 2001 - 2010.

Our findings show that involved owners have more aggressive cash dividend policies. Furthermore, when examining different ownership involvement levels, we find that increased

[23] We assume that descendants of the founder carry on the same values and characteristics as the original founder, and thus regard descendants as founders per se.

ownership involvement leads to more aggressive dividend payout policies. Finally, our results unexpectedly indicate that founder owners who are solely CEO have less aggressive payout policies. To the best of our knowledge, these are all novel findings.

The paper is organized as follows. In section 2 we derive two main hypotheses from theory on ownership involvement and dividends. Section 3 highlights our research methodology. The empirical analysis is presented in section 4, including descriptive statistics, comparative statistics, correlation analyses and regression analyses. Finally, section 5 concludes the paper.

## 2.0 THEORY AND HYPOTHESES DEVELOPMENT

The general understanding of dividend policy concludes that dividends tend to be sticky, tied to long-term sustainable earnings, paid by mature companies, and smoothed from year to year (Lintner, 1956 and Berk & DeMarzo, 2011). Moreover, managers agree that dividends communicate important information to investors (Brav et al., 2005).

Florackis et al. (2009) explain that an *entrenchment effect* might exist when managers reach certain levels of ownership. Entrenched managers tend to use their position to harvest private benefits. On the other hand, there can also be an *incentive-alignment effect* that means an owner with influence will be more prone to constraining the consumption of perquisites (Florackis et al. 2009). Most researchers agree that the positive incentive-alignment effect more than counteract the negative entrenchment effect for owner influenced and founder firms when it comes to firm performance.[24] However, the academic research regarding how principal-agent theory and ownership incentive effects (e.g. entrenchment effect*s* and incentive-alignment effect*s*) affect payout policy decisions are not conclusive.

Studies made by Morck et al. (1988) and Florackis et al. (2009), show that the incentive-alignment effect and the entrenchment effect are dominant at different levels of ownership. These results provide support for both the incentive-alignment and the entrenchment hypotheses. Even though the incentive-alignment effect dominates the entrenchment effect at most levels of ownership, Florackis et al. (2009) show that for ownership levels above 60% the entrenchment effect is dominating. On the contrary, the assumption made by Morck et al. (1988) is that the

[24] C.f. Jensen & Meckling (1976), Demsetz & Lehn (1985), Morck et al. (1988), Alvarez & Busenitz (2001), Anderson & Reeb (2003) and Villalonga & Amit, (2006), Florackis et al. (2009).

entrenchment effect reaches its maximum at 25% ownership, and thus the incentive-alignment effect dominates above this level of managerial ownership. However, we should keep in mind that the more recent study made by Florackis et al. (2009) uses a semi-parametric estimate, which is likely to be superior to the method used by Morck et al. (1988). It is thus possible that the dominating entrenchment effect observed by Florackis et al. (2009), when having a large controlling owner, would also be observed by Morck et al. (1988) if a semi-parametric estimate had been used. The findings of Florackis are supported by Villalonga & Amit (2006) and Wei et al. (2011) who both state that a majority owner who actively manages his firm will act with some entrenchment. Johnson et al. (2000) shows that an expropriation by large stockholders at the expense of minority stockholders, so-called tunneling, are common, and as argued by Lee & Xiao (2004), cash dividends can be used as a tunneling activity.

Following our discussion above regarding entrenchment effects and payout policy, majority owners with influence on cash dividend payout decisions should pay more dividends than general owners.[25]

Following Farinha (2002), we find the entrenchment hypothesis from the agency literature interesting for analyzing payout policy, since it has consequences for dividend policy. When a critical level of entrenchment is reached, increases in ownership cause additional agency costs. Dividends may then be a compensating monitoring force that decrease costs related to the principal-agent problem. If so, a positive relationship between dividend payouts and insider ownership would be observed. In addition, Rozeff (1982) argue that dividend payouts can be used to reduce agency costs. The entrenchment hypothesis is supported by Hu & Kumar (2004) who find that both the likelihood and the level of payouts are significantly and positively (negatively) related to factors that increase (decrease) executive entrenchment levels.[26] In addition, other things being equal, managers (agents) who can be disciplined by owners (principals) at relatively low costs choose higher payouts (Hu & Kumar, 2004). Since involved owners have a high tenure with the firm, are the largest owners, and have much influence, they will have few difficulties in disciplining managers. John & Knyazeva (2006) also find that high agency costs increase the likelihood of having cash distributions and decrease the reliance on discretionary payouts. As a consequence, the largest owner with influence (high involvement) in

[25] Discussion related to Farinha (2002), Hu & Kumar (2004) and John & Knyazeva (2006).
[26] Even when controlling for size, leverage, and the proportion of tangible to total assets.

the firm should have a more aggressive cash dividend payout policy than other owners. For these reasons, we pose the following first hypothesis:

**HYPOTHESIS 1**

*Firms with large and involved owners tend to have more aggressive cash dividend payout policies than other firms.*

When it comes to the topic of ownership involvement and dividend payouts, we should take into consideration that no clear empirical consensus exists among researchers. Monsen (1969) makes an early claim that owner operated firms have non-economic reasons (e.g. desire to rule a financial empire and/or the continuance of family name or tradition) to prefer to finance itself through high retained earnings rather than losing control of the firm by participating in outside capital markets. Eckbo & Verma (1994) finds indications that cash dividends decrease as the voting power of involved owners increase. On the other hand, Farinha (2002) argue that the same firms increase their use of dividends as a compensating monitoring force because of increased entrenchment.[27] Despite the mixed views among researchers, both Farihna (2002) and Hu & Kumar (2004) argue that the owners' level of involvement heavily influences payout policy decisions.

Operating founders often own a larger percentage of the firm than other managers (Nelson, 2003). This creates an economic link between the founder and his firm, and it reduces the need for incentive compensation and outside monitoring. This implies that founder operated firms spend fewer resources on costly compensation schemes. In addition to this economic link, Nelson (2003) suggests that a psychological link exists between operating founders and the firm. This link reduces the agency costs related to managers' overconsumption of perquisites, as presented by Zimmerman (1979). However, we should keep in mind that operating founders could become entrenched, even at small stakes, because of their psychological attachment to the firm (Morck et al., 1988). These opposing views illustrate the lack of empirical consensus on the topic. Consequently, operating founders should be associated with lower dividends due to reduced agency costs. Following Morck et al. (1988), the psychological link between the founder and his firm increases the entrenchment, which again increases the agency costs related to

27 Entrenchment typically increases as the owners voting power increases.

managers' overconsumption of perquisites. Necessarily, the increased overconsumption of perquisites should result in an increase in the use of dividends as a compensating monitoring force (Farinha, 2002).

Weisskopf (2010) conclude that founder owned firms are generally more likely to use dividends and pay higher dividends, than non-founder firms. Typically founders, and family members who are owners, may want to consume proceeds now and thus they pay more cash dividends. Finally, Weisskopf (2010) also emphasizes that non-owner founders do not have significantly different payout policies than other companies.

The presence of a large stockholder may mitigate the use of dividends as a signal of good performance, as the large owners themselves can act as a more credible signal (Burkart et al., 1997). However, according to Berk & DeMarzo (2011), when there is excessive cash available, managers who are not large owners tend to invest in unprofitable or "pet" projects, paying excessive executive compensations or over-paying for acquisitions. In such cases, Zeckhauser & Pound (1990) state that large long-term owners will enforce larger cash dividend payouts to reduce the cash surplus and avoid managerial agency costs in their firms because they hold blocks of voting power over long periods of time.

Farinha (2002), Hu & Kumar (2004), John & Knyazeva (2006) and Morck et al. (1988) all argue that the entrenchment effect will be present in most owner-influenced firms. This will result in them having a more aggressive payout policy than other firms. Following the hierarchy of involvement, operating founders with large ownership positions should to be the most liberal when it comes to cash dividend payouts. Furthermore, firms with founder owners who are not in operating positions also seem to have somewhat more liberal cash dividend payout policies than general owners. Finally, large long-term owners can tend to be more liberal in their dividend payouts than general owners. For these reasons, we pose the following second hypothesis:

**HYPOTHESIS 2**

*Firms with more involved owners have more aggressive payout policies than firms with less involved owners.*

i. *Large owners who are operating founders will have a more aggressive payout policy than other large owners who are solely founders.*
ii. *Large owners who are solely founders will have a more aggressive payout policy than large long-term owners.*
iii. *Large long-term owners will have a more aggressive payout policy than general owners.*

# 3.0 METHODOLOGY

## 3.1 VARIABLE MEASUREMENT

Table 1 contains summary descriptions of all the variables used in the empirical analysis.

### 3.1.1 DEPENDENT VARIABLES

Following Wei et al. (2011), our key dependent variables include a payout ratio and tendency to make dividend payouts. We use the dummy variable *DumDIV* to measure the probability of paying cash dividends. *DumDIV* equals 1 if the company pays cash dividends. We use cash dividend divided by average equity (*CDIV*) as our main measure of corporate payouts.

### 3.1.2 INDEPENDENT VARIABLES

All of our test variables are dummies related to involved owners. Following Begley & Boyd (1987), we unconditionally define a founder as an individual who has created his own firm. Consequently, the background (e.g. merger or spin-offs) for or purpose (e.g. tax savings) of the firm establishment does not affect our definition. Further, we assume that descendants of the founder carry on the same values and characteristics as the original founder, and thus regard descendants as founders per se. Our main variable is the involved owner (*InvOwn*) variable. *InvOwn* is employed to represent that an involved owner exists, and equals 1 when the largest stockholder is a long-term owner (including a founder). Next, we break down *InvOwn* into

*OpFound, OtherFound* and *LTO*. *OpFound* equals 1 when the founder is the largest stockholder and has a position as CEO or board member (or both). *OtherFound* is equal to 1 when the founder is the largest owner but not in an operating position. *LTO* equals 1 when the largest owner of the firm has been the main owner for more than five years. Finally, we break down *OpFound* into *FoundCEO, FoundBoard, FoundCEOBoard, FoundChair* and *FoundCEOChair* as illustrated in Table 1.

**TABLE 1**
**Variable definitions**

| *Variables* | *Symbol* | *Definitions* |
|---|---|---|
| *Panel A: Depentent variables* | | |
| Tendency to pay cash dividend | DumDIV | Equals 1 if the company pays cash dividends, and 0 otherwise |
| Cash dividend payout ratio | CDIV | Cash dividend divided by average equity |
| *Panel B: Independent variables* | | |
| Owner Involvement | InvOwn | Equals 1 if the founder is the largest owner or there is a long term owner (LTO), and zero if not |
| Operating Founder | OpFound | Equals 1 if the founder is the largest owner and has a position as CEO, a position on the board or any combination of these, and zero if not |
| Other Founders | OtherFound | Equals 1 if the founder is the largest owner but not in an operating position, and zero if not |
| Long Term Owners | LTO | Equals 1 if the largest owner of the firm has been the largest owner for more than five years, and zero if no |
| Founder CEO | FoundCEO | Equals 1 if the founder is the largest owner and solely CEO, and zero if not |
| Founder Board | FoundBoard | Equals 1 if the founder is the largest owner and solely a member of the board, and zero if not |
| Founder CEO Board | FoundCEOBoard | Equals 1 if the founder is the largest owner and CEO and a member of the board, and zero if not |
| Founder Chairman | FoundChair | Equals 1 if the founder is the largest owner and solely chairman, and zero if not |
| Founder CEO Chairman | FoundCEOChair | Equals 1 if the founder is the largest owner and CEO and chairman, and zero if not |
| *Panel C: Control varables* | | |
| Firm size | Size | Natural logarithm of average total assets |
| Public time | Time | The number of years the firm has been listed on the stock exhange |
| Firm risk | Risk | The standard deviation of the stock return based on four different points of return within an interval of one year and three months on either side of the accounting period's end |
| Cash holdings | Cash | Ratio of cash and cash equivalents to average total assets |
| Investment opportunities | Investment | Ratio of market value four months after the end of the accounting period to book value of assets |
| Financial leverage | IBD | Interest bearing debt divided by average total assets |
| Listed owner | ListOwn | Equals 1 if the founder-involved company is owned through a listed holding company |
| Profitability | RNOA | Ratio of operating income to net operating assets |
| Tendency to repurchase stocks | DumREP | Equals 1 if the company repurchase stocks, and zero if not |
| Year effects | Year | Nine year dummy variables set for the ten-year sample period |
| Industry effects | Industry | Seventeen industry dummy variables set for eighteen industries (excluding the financial industry) |

### 3.1.3 CONTROL VARIABLES

We employ industry effects (*Industry),* year effects (*Year),* firm size (*Size*), firm risk (*Risk*), public time (*Time*), listed owners (*ListOwn*), tendency to repurchase stocks (*DumREP*), investment opportunities (*Investment*), cash holdings (*Cash*), financial leverage (*IBD*) and

profitability (*RNOA*) as control variables in our analysis. The *Industry* dummy variables and *Year* dummy variables, control for payout effects across different industries or years.[28] Furthermore, to control for firm-level characteristics, we apply three variables: *Size*, *Time* and *Risk*. *Size* is measured as the natural logarithm of the firm's end-of-year market value. We define *Risk* as the standard deviation of the stock return based on four different points of return within an interval of one year and three months on either side of the accounting period's end. *Time* is the number of years the firm has been listed on the stock exchange. These three variables are meant to control for performance effects as a result of size, variability in stock return and survival time on the stock exchange.

Given that we estimate how ownership involvement affects cash dividends, we introduce the dummy variable, *ListOwn*, to control for owner influenced firms that are owned through a listed holding company. Whether the involved owner owns his firm through a holding company for tax-reasons or other purposes, we assume that such owners have different payout preferences than directly involved owners. This also gives us the opportunity to map the real payout preferences of the involved owner. Moreover, the control variable, *DumREP*, is meant to control for the association between discretionary payouts and cash payouts.

There are also some other factors that directly influence payout policy, and we introduce three control variables to account for these effects. First, *Investment* is measured as the ratio of market value four months after the end of the accounting period to the book value of assets. *Investment* is included to control for high (low) investment opportunities, which might lead to high (low) retention rates. When a firm has high investment opportunities it should prefer to reinvest its money. Second, cash holdings and financial leverage in the firm should be controlled for, as these can influence payout policy to some degree. *Cash* is measured as the ratio of cash and cash equivalents to average total assets. Third, *IBD* (financial leverage) is measured as the interest bearing debt divided by average total assets.

Finally, the accounting control-variable, *RNOA*, is included as a control variable to explain the portion of payouts that is merely associated with firm performance. To calculate *RNOA*, we use the balance sheet identity and distinguish between operating and financial assets/liabilities (c.f. Dechow et al., 2008):

[28] In accordance with Wei et al. (2011), we exclude the financial industry from our data, and thus, no dummy is needed for this industry.

Total assets equal the sum of total liabilities and equity (see eq. 1). We divide total assets into cash and operating assets, which then equal the sum of debt, operating liabilities and equity (see eq. 2). Net Operating Assets (NOA), which equals operating assets less operating liabilities, is then calculated as debt plus equity minus cash (see eq. 3). Finally, RNOA is calculated as operating profit divided by NOA (see eq. 4).

Total assets = Total liabilities + Equity (eq. 1)

Cash + Operating assets = Debt + Operating liabilities + Equity (eq. 2)

NOA = Operating assets - Operating liabilities = Debt + Equity – Cash (eq. 3)

RNOA = Operating Profit / NOA (eq. 4)

## 3.2 RESEARCH MODELS

The two dependent variables presented in Section 3.1.2 can be classified in two categories: the dummy variable, *DumDIV*, and the continuous variable, *CDIV*. To estimate the dependent dummy variable, we employ a logistic regression, which is fit for predicting the outcome of a binary dependent variable (Wei et al., 2011). The coefficient of each independent variable will represent that variable's association with the estimated tendency to pay cash dividends.

$$\text{Logit (DumDIV)}_t = \alpha_0 + \alpha_1\text{InvOwn}_t + \alpha_2\text{Time}_t + \alpha_3\text{Size}_t + \alpha_4\text{Risk}_t + \alpha_5\text{Cash}_t + \alpha_6\text{Investment}_t + \alpha_7\text{IBD}_t + \alpha_8\text{ListOwn}_t + \alpha_9\text{RNOA}_t + \alpha_{10}\text{DumREP}_t + \upsilon_t \quad \text{(reg. 1)}$$

$$\text{Logit (DumDIV)}_t = \beta_0 + \beta_1\text{OpFound}_t + \beta_2\text{OtherFound}_t + \beta_3\text{LTO}_t + \beta_4\text{Time}_t + \beta_5\text{Size}_t + \beta_6\text{Risk}_t + \beta_7\text{Cash}_t + \beta_8\text{Investment}_t + \beta_9\text{IBD}_t + \beta_{10}\text{ListOwn}_t + \beta_{11}\text{RNOA}_t + \beta_{12}\text{DumREP}_t + \upsilon_t \quad \text{(reg. 2)}$$

$$\text{Logit (DumDIV)}_t = \gamma_0 + \gamma_1\text{FoundCEO}_t + \gamma_2\text{FoundBoard}_t + \gamma_3\text{FoundCEOBoard}_t + \gamma_4\text{FoundChair}_t + \gamma_5\text{FoundCEOChair}_t + \gamma_6\text{OtherFound}_t + \gamma_7\text{LTO}_t + \gamma_8\text{Time}_t + \gamma_9\text{Size}_t + \gamma_{10}\text{Risk}_t + \gamma_{11}\text{Cash}_t + \gamma_{12}\text{Investment}_t + \gamma_{13}\text{IBD}_t + \gamma_{14}\text{ListOwn}_t + \gamma_{15}\text{RNOA}_t + \gamma_{16}\text{DumREP}_t + \upsilon_t \quad \text{(reg. 3)}$$

Since all payouts are either zero or positive, OLS is not an appropriate method to analyze the payment of dividends (Al-Malkawi, 2007). Consequently, to measure a non-negative continuous dependent variable, we follow Han et al. (1999), Al-Malkawi (2007), Kouki (2009) and Wei et

al. (2011), who use Tobit estimation to measure *CDIV*. In such a setting, the coefficient of each independent variable represents that variable's association with the estimated cash dividend payout ratio.

$$\text{Tobit } (CDIV)_t = \varepsilon_0 + \varepsilon_1 InvOwn_t + \varepsilon_2 Time_t + \varepsilon_3 Size_t + \varepsilon_4 Risk_t + \varepsilon_5 Cash_t + \varepsilon_6 Investment_t + \varepsilon_7 IBD_t + \varepsilon_8 ListOwn_t + \varepsilon_9 RNOA_t + \varepsilon_{10} DumREP_t + \upsilon_t \quad \text{(reg. 4)}$$

$$\text{Tobit } (CDIV)_t = \eta_0 + \eta_1 OpFound_t + \eta_2 OtherFound_t + \eta_3 LTO_t + \eta_4 Time_t + \eta_5 Size_t + \eta_6 Risk_t + \eta_7 Cash_t + \eta_8 Investment_t + \eta_9 IBD_t + \eta_{10} ListOwn_t + \eta_{11} RNOA_t + \eta_{12} DumREP_t + \upsilon_t \quad \text{(reg. 5)}$$

$$\text{Tobit } (CDIV)_t = \theta_0 + \theta_1 FoundCEO_t + \theta_2 FoundBoard_t + \theta_3 FoundCEOBoard_t + \theta_4 FoundChair_t + \theta_5 FoundCEOChair_t + \theta_6 OtherFound_t + \theta_7 LTO_t + \theta_8 Time_t + \theta_9 Size_t + \theta_{10} Risk_t + \theta_{11} Cash_t + \theta_{12} Investment_t + \theta_{13} IBD_t + \theta_{14} ListOwn_t + \theta_{15} RNOA_t + \theta_{16} DumREP_t + \upsilon_t \quad \text{(reg. 6)}$$

Regression models (reg. 1) and (reg. 4) are used to examine Hypothesis 1 on the impact of involved owners on the cash dividend policy of listed companies. In regression models (reg. 2) and (reg. 5), the *InvOwn* variable is decomposed into *OpFound*, *OtherFound* and *LTO*, which represent a hierarchy of involved owners, and helps test Hypothesis 2 to examine whether the impact of operating founders on cash dividends is stronger than the impact of other founders and long-term owners on cash dividends. Finally, Models (reg. 3) and (reg. 6) examines how large founder owners in operating positions, e.g. CEO, board member, chairman, or any combination of these, impact cash dividend policy.

## 3.3 Sample Formation

The empirical tests are conducted using financial statements data and stock prices data from publicly listed companies in Sweden from 2001 to 2010, gathered by Ph.D. Mattias Hamberg, who is an associate professor at the Norwegian School of Economics. The data set originally consists of 375 firms and 2671 firm-year observations.

### 3.3.1 DATA CLEANING

In accordance with Anderson & Reeb (2003), we exclude banks due to the difficulty in calculating investment opportunities (*Investment*) for banks.[29] We also exclude firms not domiciled in Sweden and those not reporting in Swedish kronor. In the process of cleaning the data set a total of 490 firm-year observations were excluded because of missing data, which leaves us with 2,181 firm-years before trimming.

We decided to include a small amount of observations where the accounting period is longer than one year. We also decided to include firms in the first year they are listed although this means that stock returns have to be estimated on the basis of a shorter period than 12 months. None of these choices are likely to alter the bulk of our results.

### 3.3.2 BIAS CONSIDERATION

We have considered both hindsight bias and survival bias during our data selection process. Hindsight bias means that the information used should be available to the investors at the time an observation was made. Avoiding this bias has been an especially important consideration in our study. We have thus used market values four months after the end of the accounting period and returns estimated from three months after the accounting period ends, and continuing either 365 days or until the company's last day of trading. Survival bias arises when a researcher purposely selects a population that has survived throughout the studied time period and excludes the non-survivors. The appropriate procedure is to observe firms at one point in the past, and then follow them throughout the time period of concern. If they fall out of the sample during the sample period then we just exclude them on an "on the go" basis.

Furthermore, studies which relate themselves to founder ownership, control, and management can be prone to self-selection biases (Villalonga & Amit, 2006). Because all three elements are likely an outcome of endogenous decisions, the observed relation between each of them and firm value may be subject to alternative interpretations to value creation or destruction according to Villalonga & Amit (2006). Such effects can in turn influence payout policy. Following Villalonga & Amit (2009), if this is the case, relationships we find between founder ownership and dividend payout policies could be linked to a reverse causality interpretation.

[29] We remove all observations with industry code 42 (Banks) from our initial data set.

### 3.3.3 DATA TRIMMING

The data set has been trimmed to control for extreme observations (outliers). Not controlling for outliers can make the sample unrepresentative, increase the standard deviation and reduce the power of our statistical tests. An outlier is an observation that appears to be inconsistent with the rest of the data set and can be identified by a graphical interpretation of the data. Also, cash dividend payout ratios are very skewed by nature. For this reason we use a Tobit regression to estimate *CDIV*.

We have chosen to trim 1% on *CDIV* in the high end in order to eliminate the influence of extreme outliers and to better satisfy the assumptions for the Tobit regressions.[30] A total number of 22 observations are removed. After trimming we were left with 2,159 firm-year observations.

# 4.0 EMPIRICAL ANALYSIS

## 4.1 DESCRIPTIVE STATISTICS

**TABLE 2**
**Descriptive statistics**

| | *Mean* | *Median* | *Min* | *Max* | *SD* |
|---|---|---|---|---|---|
| *Panel A: Dependent Variables* | | | | | |
| DumDIV | 0.588 | 1.000 | 0.000 | 1.000 | 0.492 |
| CDIV | 0.049 | 0.027 | 0.000 | 0.412 | 0.069 |
| *Panel B: Independent Variables* | | | | | |
| InvOwn | 0.510 | 1.000 | 0.000 | 1.000 | 0.500 |
| OpFound | 0.285 | 0.000 | 0.000 | 1.000 | 0.451 |
| OtherFound | 0.048 | 0.000 | 0.000 | 1.000 | 0.214 |
| LTO | 0.177 | 0.000 | 0.000 | 1.000 | 0.382 |
| FoundCEO | 0.007 | 0.000 | 0.000 | 1.000 | 0.083 |
| FoundBoard | 0.100 | 0.000 | 0.000 | 1.000 | 0.300 |
| FoundCEOBoard | 0.079 | 0.000 | 0.000 | 1.000 | 0.270 |
| FoundChair | 0.078 | 0.000 | 0.000 | 1.000 | 0.269 |
| FoundCEOChair | 0.021 | 0.000 | 0.000 | 1.000 | 0.143 |

All descriptive statistics in panel B and C are based based on the CDIV sample.

[30] There is no reason to trim on the binary dependent variable, *DumDIV*, since we do a Logistic regression to estimate the tendency to pay cash dividends.

**TABLE 2 (continuing)**
**Descriptive statistics**

| | *Mean* | *Median* | *Min* | *Max* | *SD* |
|---|---|---|---|---|---|
| *Panel C: Control Variables* | | | | | |
| Size | 7.351 | 7.055 | 2.110 | 12.741 | 1.951 |
| Time | 13.673 | 8.000 | 0.000 | 108.000 | 17.490 |
| Risk | 0.406 | 0.278 | 0.003 | 3.872 | 0.409 |
| Cash | 0.158 | 0.088 | 0.000 | 2.488 | 0.195 |
| Investment | 1.454 | 0.875 | 0.000 | 35.132 | 2.220 |
| IBD | 0.212 | 0.170 | 0.000 | 1.469 | 0.201 |
| ListOwn | 0.090 | 0.000 | 0.000 | 1.000 | 0.286 |
| RNOA | 0.029 | 0.083 | -75.754 | 77.741 | 3.161 |
| DumREP | 0.125 | 0.000 | 0.000 | 1.000 | 0.330 |

All descriptive statistics in panel B and C are based based on the CDIV sample.

Table 2 shows descriptive statistics of the variables used in our analysis. The mean of *DumDIV* is 58.8%, indicating that over half of the listed companies in Sweden pay cash dividends. *CDIV* is 4.9% on average, indicating that five percent of equity is used to pay cash dividends.[31] Generally, the descriptive data illustrate that the cash dividend payout ratio and tendency to pay dividends are fairly low.

Table 3 gives a general overview of how many operating founders, other founders and long-term owners that are observed in our data set. It shows that as many as 1,101 of the 2,159 firm-year observations (51.0%) have an owner with some level of involvement in the firm. In line with the expectations from Hypothesis 1, both the tendency to pay dividends and the payout ratio for *InvOwn* seems to be larger than for the whole sample. Further, *OpFound* counts for 28.5% of the observations, *OtherFound* 4.8% and *LTO* 17.7%. However, the magnitudes in the tendency to pay dividends and payout ratio seem somewhat different from what we expect in Hypothesis 2. *OpFound* appear to have both a little lower tendency to pay dividends and payout ratio than *OtherFound* and *LTO*.

[31] The same relationships that are shown in row ten of Table 3.

**TABLE 3**
**Number of observations and average DumDiv and CDIV for the independent variables.**

| | *n* | *%* | *Mean DumDIV* | *Mean CDIV* |
|---|---|---|---|---|
| InvOwn | 1,101 | 51.0 % | 0.711 | 0.057 |
| OpFound | 615 | 28.5 % | 0.661 | 0.051 |
| FoundCEO | 15 | 0.7 % | 0.533 | 0.016 |
| FoundBoard | 215 | 10.0 % | 0.706 | 0.055 |
| FoundCEOBoard | 171 | 7.9 % | 0.591 | 0.043 |
| FoundChair | 169 | 7.8 % | 0.690 | 0.062 |
| FoundCEOChair | 45 | 2.1 % | 0.644 | 0.036 |
| OtherFound | 104 | 4.8 % | 0.792 | 0.064 |
| LTO | 382 | 17.7 % | 0.769 | 0.065 |
| Full sample | 2,159 | 100% | 0.584 | 0.049 |

Full sample is the sample size for the regression based on CDIV. The sample size for the regression based on DumDiv is 2181. The Mean DumDiv and Mean CDIV values are gathered from the DumDiv and CDIV sample respectively. The number of observations values are based on the CDIV sample. The sub-categories for OpFound are all unique observations. Accordingly, their sum is equal to the OpFound variable. Since we only include involved owners who are also the largest owners in this study, the number of observations related to FoundCEO and FoundCEOChair is fairly small. This could be a factor that prevents statistical significance for these variables.

## 4.2 COMPARATIVE DESCRIPTIVE STATISTICS

The comparative descriptive data for owner-involved firms and other firms is presented in Table 4. The first column shows the descriptive means for owner involved firms while column two shows the descriptive means for other firms. In the third column, we present the p-value from two-tailed t-tests to reject the null hypothesis of equal mean across these two groups.

In Panel A of Table 4 we report the means of the tendency to pay cash dividends (*DumDiv)* and the payout ratio (*CDIV*). The univariate analysis shows that both *DumDiv* and *CDIV* seem to be different for owner-involved firms than other firms. Thus, we find clear tendencies indicating that the owner-involved firms have different payout policies than other firms.

Panel B of Table 4 compares the mean of the firm characteristics for owner-involved firms and other firms. As expected, *Size, Time* and *Risk* are different. The means of *Size* and *Time* seems to be larger for owner-involved firms than other firms, while owner-involved *Risk* is smaller than other firms. These observations make sense since we only include firms where the involved owner also is the largest owner.[32] Since the three main firm characteristic variables are significantly different, they are very suitable as control variables in our regressions later on.

[32] We do this to be able to easily compare our results across different classifications of involvement.

**TABLE 4**
**Comparative descriptive data for Owner-involved firms and Other firms**

| | *Owner-involved firms* | *Other firms* | *T-test* |
|---|---|---|---|
| | *Mean* | *Mean* | *P-value* |
| *Panel A: Payout Variables* | | | |
| DumDIV | 0.711 | 0.461 | 0.000 |
| CDIV | 0.057 | 0.040 | 0.000 |
| *Panel B: Control Variables* | | | |
| Size | 7.749 | 6.938 | 0.000 |
| Time | 18.305 | 8.853 | 0.000 |
| Risk | 0.370 | 0.443 | 0.000 |
| Cash | 0.149 | 0.168 | 0.025 |
| Investment | 1.418 | 1.493 | 0.432 |
| IBD | 0.205 | 0.219 | 0.118 |
| ListOwn | 0.176 | 0.000 | 0.000 |
| RNOA | -0.018 | 0.079 | 0.479 |
| DumREP | 0.124 | 0.126 | 0.878 |

The control variable means in panel B are based on the CDIV sample.

Panel B also shows two more variables that are significantly different between owner-involved and other firms, namely *Cash* and *ListOwn*. First, the cash holdings in owner-involved firms seem to be a little smaller than for other firms. Since we do not find a significant difference in profitability (*RNOA*) between the two groups, an explanation for our observation of lower cash holdings can be that owner-involved firms use a larger amount of their *cash* to pay dividends. Second, *ListOwn* is most likely different because the variable only includes founders.

## 4.3 CORRELATION ANALYSIS

Table 5 presents the correlation matrix of dependent and independent variables used in the analysis for the pooled sample of both owner involved and other firms. It shows that involved owners are associated with both higher *DumDIV* (t-stat: 12.38) and *CDIV* (t-stat: 5.94). *OpFound* is also positively associated with both *DumDIV* (t-stat: 4.45) and *CDIV* (t-stat: 1.17), yet only the *DumDIV* correlation is significant. Next, both *OtherFound* and *LTO* are associated with both

higher *DumDIV* (t-stats: 4.35 and 8.12 respectively) and *CDIV* (t-stats: 2.35 and 5.04 respectively). All this speaks in favor of Hypothesis 1.

When it comes to the magnitude of association with *DumDIV* and *CDIV*, *LTO* is largest. This somewhat contradicts our prediction from Hypothesis 2. However, seen in relation with the descriptive data for *OpFound*, *OtherFound* and *LTO* in Panel B of Table 3, this proves the need for a regression to estimate the real effects on cash dividend policy.[33]

All the combinations of founders who also have a position on the board have an association with higher tendencies to pay cash dividends. *FoundCEO* show a negative association for *DumDIV* (t-stat: -0.40) and *CDIV* (t-stat: -1.86), yet the association for *DumDIV* is not significant. Founder board members and chairmen have a positive association with the payout ratio, *CDIV* (t-stats: 3.72 and 2.82 respectively). Founder board members and chairmen who are also CEOs tend to have a somewhat negative relationship with *CDIV* (t-stats: -1.17 and -1.23 respectively).

The correlation between *Size* and *Time* (t-stat: 29.49), *Time* and *ListOwn* (t-stat: 21.78), and *IBD* and *Cash* (t-stat: -21.06) could indicate multicollinearity between these variables.[34] *Time*, *Size*, *ListOwn*, *RNOA* and *DumREP* are associated with both a higher *DumDIV* (t-stats: 13.93, 26.49, 9.46, 2.32 and 11.71 respectively) and *CDIV* (t-stats: 5.87, 13.94, 4.67, 2.79 and 8.41 respectively). *Risk* and *Cash* are associated with lower *DumDIV* (t-stats: -9.93 and -11.43 respectively) and *CDIV* (t-stats: -5.81 and -3.85 respectively). Finally, *Investment* and *IBD* is associated with respectively lower and higher *DumDIV* (t-stats: -7.24 and 8.23 respectively). Among all the control variables, *Size* is the only variable that shows a correlation with *DumDIV* above 0.40. However, it makes sense that the larger the firm, the more likely it is to pay cash dividends.

[33] Also see Section 3.1.1.
[34] We suspect multicollinearity between variables when the correlation coefficient is larger than 0.40.

**TABLE 5**
**Correlation Matrix**

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | DumDIV | 1 | | | | | | | | | | | | | | | | | | | |
| 2 | CDIV | 0.595*** | 1 | | | | | | | | | | | | | | | | | | |
| 3 | InvOwn | 0.257*** | 0.127*** | 1 | | | | | | | | | | | | | | | | | |
| 4 | OpFound | 0.095*** | 0.025 | 0.619*** | 1 | | | | | | | | | | | | | | | | |
| 5 | OtherFound | 0.093*** | 0.050** | 0.221*** | -0.142*** | 1 | | | | | | | | | | | | | | | |
| 6 | LTO | 0.172*** | 0.108*** | 0.455*** | -0.293*** | -0.104*** | 1 | | | | | | | | | | | | | | |
| 7 | FoundCEO | -0.009 | -0.040* | 0.082*** | 0.133*** | -0.019 | -0.039* | 1 | | | | | | | | | | | | | |
| 8 | FoundBoard | 0.080*** | 0.032 | 0.326*** | 0.527*** | -0.075*** | -0.154*** | -0.028 | 1 | | | | | | | | | | | | |
| 9 | FoundCEOBoard | 0.004 | -0.025 | 0.288*** | 0.465*** | -0.066*** | -0.136*** | -0.025 | -0.098*** | 1 | | | | | | | | | | | |
| 10 | FoundChair | 0.060*** | 0.058*** | 0.286*** | 0.462*** | -0.066*** | -0.135*** | -0.024 | -0.097*** | -0.085*** | 1 | | | | | | | | | | |
| 11 | FoundCEOChair | 0.018 | -0.027 | 0.143*** | 0.231*** | -0.033 | -0.068*** | -0.012 | -0.049** | -0.043** | -0.043** | 1 | | | | | | | | | |
| 12 | Time | 0.287*** | 0.125*** | 0.270*** | -0.007 | 0.106*** | 0.303*** | 0.003 | 0.036* | -0.053** | 0.015 | -0.026 | 1 | | | | | | | | |
| 13 | Size | 0.495*** | 0.287*** | 0.208*** | -0.089*** | 0.088*** | 0.328*** | 0.032 | -0.007 | -0.140*** | 0.004 | -0.028 | 0.536*** | 1 | | | | | | | |
| 14 | Risk | -0.209*** | -0.124*** | -0.089*** | -0.026 | -0.028 | -0.069*** | 0.001 | -0.027 | 0.022 | -0.042* | 0.010 | -0.083*** | -0.133*** | 1 | | | | | | |
| 15 | Cash | -0.239*** | -0.083*** | -0.048** | 0.085*** | -0.001 | -0.163*** | -0.042* | 0.004 | 0.145*** | -0.006 | 0.022 | -0.134*** | -0.377*** | 0.087*** | 1 | | | | | |
| 16 | Investment | -0.154*** | 0.007 | -0.017 | 0.053** | 0.011 | -0.092*** | -0.023 | 0.004 | 0.085*** | 0.019 | -0.022 | -0.097*** | -0.284*** | 0.106*** | 0.362*** | 1 | | | | |
| 17 | IBD | 0.174*** | 0.004 | -0.034 | -0.065*** | -0.057*** | 0.064*** | 0.062*** | -0.021 | -0.048** | -0.037* | -0.035 | 0.042** | 0.357*** | -0.062*** | -0.413*** | -0.260*** | 1 | | | |
| 18 | ListOwn | 0.199*** | 0.100*** | 0.308*** | -0.044** | -0.033 | 0.474*** | -0.026 | 0.047** | -0.086*** | -0.055** | 0.045** | 0.424*** | 0.395*** | -0.037* | -0.096*** | -0.081*** | -0.024 | 1 | | |
| 19 | RNOA | 0.050** | 0.060*** | -0.015 | -0.024 | 0.012 | 0.002 | 0.003 | 0.005 | -0.022 | -0.026 | 0.000 | 0.019 | 0.052** | 0.002 | 0.011 | 0.021 | -0.012 | 0.013 | 1 | |
| 20 | DumREP | 0.244*** | 0.178*** | -0.003 | 0.004 | -0.039* | 0.013 | 0.104*** | -0.022 | -0.043** | 0.041* | 0.004 | 0.124*** | 0.230*** | -0.067*** | -0.104*** | -0.107*** | 0.081*** | 0.038* | 0.019 | 1 |

* Denote significant at 10% level
** Denote significant at 5% level
*** Denote significant at 1% level

## 4.4 CONTROL VARIABLE ANALYSIS

The coefficients for the control variable analysis are found in Table 6. Each respective control variable coefficient points in the same direction for all the six regressions, except for *Time* and *ListOwn*. The explanation for them having different directions in the Logit and Tobit regressions is probably related to their high correlation with each other.[35]

It seems likely that the effect of a firm's tenure as a listed company (*Time*) increases its propensity to pay cash dividends. However, the estimations also show that as *Time* grows, the effect on the payout ratio is actually slightly negative. It is also reasonable that a larger firm (the *Size* variable) affect both the tendency to pay cash dividends and the payout ratio positively. *Risk* is naturally associated with both a lower payout ratio and tendency to pay dividends.

When a firm holds more *Cash* its possibilities to pay dividends increase, and such a positive relationship is observed in all regressions. When a firm has greater *Investment* opportunities, it is more profitable to retain cash inside the company to exploit growth opportunities. However, in our analysis we observe that high *Investment* actually has a positive influence on both the payout ratio and the tendency to pay cash dividends. Furthermore, firms with high interest bearing debt (*IBD*) should naturally pay less cash dividends. Our estimations confirm this relationship.

Being a listed owner (*ListOwn*) seems to influence the tendency to pay cash dividends positively and the payout ratio negatively. However, none of these coefficients are significantly different from zero. Logically, both good performance (*RNOA*) and stock repurchase (*DumREP*) activity seems to have a positive influence on both the payout ratio and propensity to pay dividend.

## 4.5 TEST OF HYPOTHESIS 1

Our first hypothesis is that firms owned by involved owners have more aggressive cash dividend policies than other firms.

Table 6 summarizes the tests for Hypothesis 1 in column one and four. Column one shows the estimations of a Logit regression of *DumDIV* on involved owners (*InvOwn*). The coefficient for *InvOwn*, $\alpha_1$, is 0.934 (t-stat: 7.70), which indicates that involved ownership is associated with

[35] The correlation coefficient between *Time* and *ListOwn* is 0.424

a higher propensity to pay cash dividends. Column four in Table 6 shows the estimations of a Tobit regression of *CDIV* on *InvOwn*. Also here, the coefficient for *InvOwn* ($\varepsilon_1$ = 0.026, t-stat: 5.68) is positive. This indicates that firms with involved owners are linked to a higher dividend payout ratio than other firms.

**TABLE 6**
**Results from Logit Regressions (1-3) and Tobit Regressions (4-6) of DumDiv and CDIV on Founder Influence (t-statistics in parenthesis)**
**Full Sample Consists of 2487 Firm-years from 2001 to 2010**

$$DumDIV(1)_t = \alpha_0 + \alpha_1 InvOwn_t + \alpha_2 Time_t + \alpha_3 Size_t + \alpha_4 Risk_t + \alpha_5 Cash_t + \alpha_6 Investment_t + \alpha_7 IBD_t + \alpha_8 ListOwn_t + \alpha_9 RNOA_t + \alpha_{10} DumREP_t + \upsilon_t$$

$$DumDIV(2)_t = \beta_0 + \beta_1 OpFound_t + \beta_2 OtherFound_t + \beta_3 LTO_t + \beta_4 Time_t + \beta_5 Size_t + \beta_6 Risk_t + \beta_7 Cash_t + \beta_8 Investment_t + \beta_9 IBD_t + \beta_{10} ListOwn_t + \beta_{11} RNOA_t + \beta_{12} DumREP_t + \upsilon t$$

$$DumDIV(3)_t = \gamma_0 + \gamma_1 FoundCEO_t + \gamma_2 FoundBoard_t + \gamma_3 FoundCEOBoard_t + \gamma_4 FoundChair_t + \gamma_5 FoundCEOChair_t + \gamma_6 OtherFound_t + \gamma_7 LTO_t + \gamma_8 Time_t + \gamma_9 Size_t + \gamma_{10} Risk_t + \gamma_{11} Cash_t + \gamma_{12} Investment_t + \gamma_{13} IBD_t + \gamma_{14} ListOwn_t + \gamma_{15} RNOA_t + \gamma_{16} DumREP_t + \upsilon t$$

$$CDIV(4)_t = \varepsilon_0 + \varepsilon_1 InvOwn_t + \varepsilon_2 Time_t + \varepsilon_3 Size_t + \varepsilon_4 Risk_t + \varepsilon_5 Cash_t + \varepsilon_6 Investment_t + \varepsilon_7 IBD_t + \varepsilon_8 ListOwn_t + \varepsilon_9 RNOA_t + \varepsilon_{10} DumREP_t + \upsilon_t$$

$$CDIV(5)_t = \eta_0 + \eta_1 OpFound_t + \eta_2 OtherFound_t + \eta_3 LTO_t + \eta_4 Time_t + \eta_5 Size_t + \eta_6 Risk_t + \eta_7 Cash_t + \eta_8 Investment_t + \eta_9 IBD_t + \eta_{10} ListOwn_t + \eta_{11} RNOA_t + \eta_{12} DumREP_t + \upsilon t$$

$$CDIV(6)_t = \theta_0 + \theta_1 FoundCEO_t + \theta_2 FoundBoard_t + \theta_3 FoundCEOBoard_t + \theta_4 FoundChair_t + \theta_5 FoundCEOChair_t + \theta_6 OtherFound_t + \theta_7 LTO_t + \theta_8 Time_t + \theta_9 Size_t + \theta_{10} Risk_t + \theta_{11} Cash_t + \theta_{12} Investment_t + \theta_{13} IBD_t + \theta_{14} ListOwn_t + \theta_{15} RNOA_t + \theta_{16} DumREP_t + \upsilon t$$

| | *Logit (DumDIV)* | | | *Tobit (CDIV)* | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Constant | -3.123 (-6.06)*** | -3.269 (-6.28)*** | -3.320 (-6.34)*** | -0.114 (-6.38)*** | -0.116 (-6.39)*** | -0.114 (-6.24)*** |
| Independent variables | | | | | | |
| InvOwn | 0.934 (7.70)*** | | | 0.026 (5.68)*** | | |
| OpFound | | 1.127 (8.08)*** | | | 0.027 (5.31)*** | |
| FoundCEO | | | -0.993 (-1.25) | | | -0.061 (-2.30)** |
| FoundBoard | | | 1.092 (5.29)*** | | | 0.031 (4.24)*** |
| FoundCEOBoard | | | 1.481 (6.55)*** | | | 0.036 (4.40)*** |
| FoundChair | | | 1.146 (5-05)*** | | | 0.028 (3.44)*** |
| FoundCEOChair | | | 0.671 (1.71)* | | | 0.006 (0.39) |
| OtherFound | | 1.066 (3.42)*** | 1.084 (3.46)*** | | 0.026 (2.63)*** | 0.026 (2.71)*** |
| LTO | | 0.419 (2.20)** | 0.411 (2.15)** | | 0.023 (3.36)*** | 0.023 (3.36)*** |
| Control variables | | | | | | |
| Time | 0.011 (1.50) | 0.012 (1.67)* | 0.011 (1.56) | -0.000 (-2.81)*** | -0.000 (-2.81)*** | -0.000 (-2.92)*** |
| Size | 0.621 (12.10)*** | 0.650 (12.36)*** | 0.664 (12.46)*** | 0.021 (12.70)*** | 0.021 (12.59)*** | 0.021 (12.63)*** |
| Risk | -1.213 (-6.42)*** | -1.235 (-6.49)*** | -1.225 (-6.39)*** | -0.055 (-7.60)*** | -0.055 (-7.61)*** | -0.054 (-7.49)*** |
| Cash | 0.648 (1.70)* | 0.550 (1.41) | 0.502 (1.27) | 0.010 (0.68) | 0.009 (0.62) | 0.008 (0.50) |
| Investment | 0.093 (3.29)*** | 0.091 (3.20)*** | 0.091 (3.18)*** | 0.008 (6.49)*** | 0.008 (6.46)*** | 0.008 (6.43)*** |
| IBD | -0.997 (-2.57)*** | -0.990 (-2.51)** | -1.018 (-2.57)*** | -0.055 (-3.82)*** | -0.055 (-3.82)*** | -0.055 (-3.78)*** |
| ListOwn | 0.247 (0.79) | 0.439 (1.41) | 0.465 (1.48) | -0.011 (-1.41) | -0.010 (-1.13) | -0.009 (-1.02) |
| RNOA | 0.012 (0.70) | 0.012 (0.68) | 0.013 (0.75) | 0.001 (1.75)* | 0.001 (1.74)* | 0.001 (1.79)* |
| DumREP | 1.383 (5.61)*** | 1.388 (5.60)*** | 1.449 (5.79)*** | 0.027 (4.47)*** | 0.270 (4.43)*** | 0.029 (4.83)*** |
| Year | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry | Yes | Yes | Yes | Yes | Yes | Yes |
| $\chi^2$ | 1046.84 | 1058.58 | 1070.78 | 894.07 | 894.49 | 910.44 |
| Pseudo $R^2$ | 0.3542 | 0.3582 | 0.3623 | -1.1563 | -1.1568 | -1.1774 |
| N | 2181 | 2181 | 2181 | 2159 | 2159 | 2159 |

| *T-test of*[a] | *T-value* | *P-value* |
|---|---|---|
| $\beta_1 > \beta_2$: | 0.179 | 0.429 |
| $\beta_2 > \beta_3$: | 1.77** | 0.038 |
| $\beta_1 > \beta_3$: | 3.000*** | 0.001 |
| $\eta_1 > \eta_2$: | 0.138 | 0.445 |
| $\eta_2 > \eta_3$: | 0.254 | 0.400 |
| $\eta_1 > \eta_3$: | 0.535 | 0.296 |

* Denote significance at 10% level

** Denote significance at 5% level

*** Denote significance at 1% level

[a]The statistical test we use for equality of regression coefficients is based on the work of Paternoster et al. (1998) and Clogg et al. (1995). T-statistic is denoted in brackets.

As a conclusion, both regressions in column one and four in Table 6 support Hypothesis 1. In line with the hypothesis, large owners with high involvement in their firms will typically support more aggressive cash dividend payout policies. The reason for supporting higher dividend payments is most likely related to some sort of large-owner entrenchment effect.

Our study contributes to the general corporate finance research by proving that large firm owners who are also involved in their companies have aggressive dividend payout preferences.

When an owner becomes more involved in his firm, entrenchment increases. As a result, he might start shirking or harvesting private benefits at the expense of the company and other stakeholders. The owner's reasons for getting involved in such activities are driven by his personal objectives of maximizing his private utility. However, his optimization of private utility is usually a mix of actions related to both an incentive-alignment effect and an entrenchment effect (Villalonga & Amit, 2006).

We suggest that there are three reasons to why involved owners have more aggressive cash dividend payout policies than others. First, in line with Johnson et al. (2000) and Lee & Xiao (2004), large owners with a strong attachment to the firm, e.g. long-term owners or founders, might use dividends (as a tunneling activity) to reach personal objectives. Second, as argued by Farinha (2002), because of the involved owner's entrenchment, dividends can be used a compensating monitoring force. The final reason for observing high levels of cash dividends in owner involved firms is the fact that they usually are influential, and has high voting power and tenure. In accordance with Hu & Kumar (2004) this power gives them few difficulties in disciplining other entrenched managers at low costs, leading managers to choose higher cash dividends. None of these explanations are mutually exclusive since they could occur simultaneously depending on the situation, the involved owner's status and personal objectives.[36]

## 4.6 TEST OF HYPOTHESIS 2

Our second hypothesis is that the aggressiveness of the cash dividend payout policy increases with the owner's level of involvedness. As mentioned earlier, we define *OpFound* as the highest level of involvement, *OtherFound* as the second highest, and *LTO* as the third.

[36] Since we include descendants in our definition of founder, some of the result might be attributable the descendants' wish of consuming proceeds now and thus they pay more cash dividends (Weisskopf, 2010).

Table 6 summarizes the tests for Hypothesis 2 in column two and five. Column two shows the estimations of a Logit regression (reg. 2) of *DumDIV* on *OpFound, OtherFound* and *LTO*. The coefficients for each of these three independent variables are positive. The coefficient for *OpFound*, $\beta_1$, is 1.127 (t-stat: 8.08). *OpFound's* coefficient is larger than the coefficient for *OtherFound*, $\beta_2$, which is 1.066 (t-stat: 3.42). Finally, the coefficient for *LTO*, $\beta_3$, is 0.419 (t-stat: 2.20), which is the smallest of the three independent variables. Furthermore, we show the same coefficient pattern in column five where we estimate *CDIV* through a Tobit regression (reg. 5) on *OpFound, OtherFound* and *LTO*.

In the Logit regression (reg. 2), $\beta_1$ and $\beta_2$ are significantly larger than $\beta_3$, while a t-test cannot confirm that $\beta_1$ is significantly larger than $\beta_2$. However, in Tobit regression (reg. 5) t-tests cannot confirm that any of the coefficients $\eta_1$, $\eta_2$, or $\eta_3$ are significantly larger than the other. Nevertheless, the estimations of both the cash dividend payout ratio and tendency to pay dividends appear to be largest for operating founders, second largest for other founders and third largest for long-term owners.

Our findings in column two and four in Table 6 provide support for Hypothesis 2. First, when the largest firm owner is involved as an operating founder, his firm typically has a very aggressive cash dividend policy. Second, if the largest firm owner is a founder, but do not hold an operating position, his firm's cash dividend payout is still aggressive. Finally, long-term owners who are the largest firm owners also have slightly aggressive payout policies, but less than the founder owners. Even though all the estimated coefficient patterns are observed in respect to what we predict in Hypothesis 2, we are unable to statistically prove all of them. For these reasons, we accept Hypothesis 2, with some doubts. Furthermore, since there are few conclusive studies on how founder owners in specific operating positions treat cash dividend payouts, we do some additional tests to assess how they influence payout policy.

Column three and six of Table 6 display the regressions for specific operating positions. The estimations of a Logit regression (reg. 3) of *DumDIV* on the different operating positions, *OtherFound*, and *LTO* is shown in column three. The coefficient for *FoundCEO* ($\gamma_2$ = -0.993, t-stat: -1.25) is negative, but not significant. All the other coefficients are positive, with the coefficient for *FoundCEOBoard*, $\gamma_3$, being the largest at 1.481 (t-stat: 6.55). This indicates that founders with a board position have a higher propensity to pay cash dividends. The coefficient for *FoundCEOChair*, $\gamma_5$, is the lowest among those with board positions at 0.671 (t-stat: 1.71),

indicating a lower tendency to pay dividends. Finally, the coefficients for *FoundBoard, FoundCEOBoard, and FoundChair* are all larger than the coefficients for both *OtherFound* ($\gamma_6$ = 1.084, t-stat: 3.46) and *LTO* ($\gamma_7$ = 0.411, t-stat: 2.15). Accordingly, these instances of operating founders have a higher propensity to pay cash dividends than other founders and long-term owners.

Column six in Table 6 shows the estimations of a Tobit regression of *CDIV* on the operating positions. Here, the same coefficient pattern as for the Logit regression is observed. The coefficient for *FoundCEO*, $\theta_1$, is -0.061 (t-stat: 2.30), and indicates a negative association with dividend payout ratio (*CDIV*). Additionally, *FoundBoard, FoundCEOBoard* and *FoundChair* all have higher cash dividend payout ratios than other founders and long-term owners.[37]

As a conclusion, we find that founders who have positions on the board and are the largest firm owners all have aggressive cash dividend payout policies. However, founder-CEOs that act as Chairman of the board have slightly less aggressive payout policies. Interestingly, owners who are solely founder-CEOs actually have more restrictive payout policies than other owners.

Since the empirical research on the effect of different levels of ownership involvement on payout policy is quite inconsistent, it is especially appealing that our findings contribute to the research on this topic. For instance, Monsen (1969) states that increased ownership involvement should reduce the cash dividends, while Farinha (2002) claims the opposite effect. Our findings are in line with Farinha's (2002) view that increased ownership involvement leads to more aggressive dividend payout policies. Higher dividends are related to an increasing entrenchment effect as a result of increased ownership involvement.

The owners who are operating founders have the highest level of involvement due to their decision making positions and psychological attachment to the firm, which gives them great power to influence dividends. Their psychological attachment in combination with large ownership positions increases their level of entrenchment. Through decision making positions they are able to exploit their entrenchment by using dividends for tunneling purposes and/or as a compensating monitoring force. Accordingly, operating founders are associated with the most aggressive cash dividend payout policies.

Owners who are not in managerial or board positions have the second highest level of involvement. While they have a psychological attachment that makes them entrenched; they lack

[37] All the coefficients of the independent variables in column six of Table 6, except $\theta_5$, are statistically significant.

the positional power to exploit their entrenchment wishes fully. Alternatively, the consequences of these actions are mitigated by other factors in our regression analyses.

Long-term owners have the third highest level of involvement. Since they did not found the firm themselves, their attachment to the firm is mostly related to their tenure as owner. Due to the lower level of attachment, we also observe a slightly lower entrenchment effect for these owners. The long-term owner is probably also involved in tunneling and/or monitoring through dividends. However, on the account of lower entrenchment, the magnitude of the dividends is also smaller.

Finally, we have separated owners who are founder CEO and owners who have positions on the board. Our findings show that firms with founder owners who are solely CEO actually have less aggressive payout policies than general companies. First, this finding is of great importance to the academic research on dividend policies because one would believe that among the founder owners, the CEO would be one of the most involved. Second, we think this finding might be attributable to the fact that founders and owners mostly choose to operate solely as the CEO of their firms in the early growth stages. Consequently, this is a crucial time for both the long-term survival and success of the newly founded company. Accordingly, there is little room for large cash dividend payouts. Third, contrary to founder board members and other owners, the position as CEO (and managerial positions) is usually compensated with a decent salary. Thus dividends are not as important as a source of income for the founder-CEO as for other founders.

As the company grows older and the founder has more tenure as an owner, it is natural for him to take on various positions on the board. In these cases we observe an alignment with Hypothesis 2 on operating founders. The ownership in combination with a psychological attachment results in the usage of dividends for tunneling purposes and/or as a compensating monitoring force. Accordingly, founder owners who are board members are associated with the absolutely most aggressive dividend payout policies.

# 5.0 CONCLUSIONS

In this research paper we have investigated how involved firm owners affect cash dividend policies at varying levels of involvement. Our findings largely show that increased ownership involvement leads to more aggressive dividend payout policies, and connect this positive relationship to an increasing entrenchment effect as a result of high involvement, strong attachment and power. Thus, highly involved owners might choose to use dividends as a tunneling activity, compensating monitoring force or disciplining tool.

Furthermore, we unexpectedly find that firms with founder owners who are solely CEO actually have less aggressive payout policies than other companies. This is a surprising but important result because it illustrates that the high involvement of founder-CEOs does not cause a more aggressive dividend policy. A likely explanation for this is that founders usually choose to operate solely as CEO only in the early growth stages of the firm, and that founder-CEOs are compensated with a decent salary compared to board members and other owners.

To the best of our knowledge, all the findings in this study contribute significantly to the corporate finance literature on dividend policies, especially since the general research on the topic of ownership involvement and payouts show quite inconsistent results. Our research helps clarify the topic of corporate actions by giving some general guidelines to how involved firm owners treat cash dividend payouts.

Since we study different people who are owners, founders, managers and board members, we must keep in mind that personal traits, such as risk aversion, culture and status, also affect the decision. Consequently, our findings can be attributed to an omitted variable bias. An example that could prove causality with our findings is undiversified owners who are dependent on high dividends for reasons related to personal financial situations. Additionally, we mainly argue that agency costs (entrenchment) constitute the main driver behind the aggressive payout policies of involved owners. However, other factors e.g. taxes, transaction costs and asymmetric information could also be important factors that have been neglected here.

Even though our study provides some guidelines to how involved firm owners influence corporate dividend policies, the research area as a whole lack empirical consensus. Thus, more research on the topic is needed. A suggestion to other researchers is to include the voting power (or other omitted variables) of the involved owners in a similar study.

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