

DIVIDEND POLICY IN NORDIC LISTED FIRMS

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ABSTRACT

In this paper we analyze the results from a survey among all publicly listed Nordic firms on their dividend payout policy. The results show that 72 percent of the Nordic companies have a specified dividend policy. Larger and more profitable companies are more likely to have a defined dividend policy in place. The dividend policy is mostly influenced by capital structure considerations and the outlook of future earnings. We also find that the likelihood for a firm having an explicit dividend policy is positively related to ownership concentration as well as to the presence of large long-term private or industrial owners. Our results support the use of defined dividend policies for agency or monitoring reasons rather than signaling reasons.

KEYWORDS: corporate finance, dividend policy, payout, NasdaqOMX

JEL Classification: G31, M21, O16

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1 INTRODUCTION

Ever since studies such as Lintner (1956) and Fama and Babiak (1968), a large number of papers have studied corporate dividend policies (payout ratios) and factors that contribute to the payout decision. Recently, focus has been on the choice between dividends and share repurchases (see for example Jagannathan, Stephens and Weisbach, 2000; Guay and Harford, 2000, and Skinner, 2008), the question of disappearing dividends (see for example Fama and French, 2001; DeAngelo, DeAngelo and Skinner, 2004), and the relationship between minority protection and dividends (see for example La Porta, Lopez-de-Silanes, Shleifer and Vishny, 2000; Faccio, Lang and Young, 2001). Typically, the dividend payout is found to be a function of factors such as profitability of the company, stability of the earnings, rate of growth, free cash flows, and more recently, the governing structure of the company. In their survey of dividend policies, DeAngelo, DeAngelo and Skinner (2008) conclude that a simple asymmetric information framework does a good job at explaining observed payout policies. This framework emphasizes the need to distribute free cash flow in the presence of agency costs and security valuation problems. They also conclude that other motives and factors such as signaling, tax preferences, and clientele demands have at best minor influences, but that behavioral biases at the managerial level (such as overconfidence) and the idiosyncratic preferences of controlling shareholders plausibly have a first order impact.¹

We contribute to the literature on studies of the relationship between controlling shareholders and dividend decisions by studying the determinants of whether a firm follows a more explicit dividend policy. While implicit dividend policies (most commonly

¹ They also note that the evidence strongly supports the view that managers of mature firms behave as if they have strong implicit contracts with their stockholders to not reduce dividends opportunistically.

the relationship between dividends and earnings, and the speed of adjustment to an assumed optimal level) have been subject to many studies, only a few papers have studied whether a company has an explicit defined dividend policy in place, and what factors are related to the choice of that policy (exceptions include Brav, Graham, Harvey and Michaely, 2005, and Baker, Saadi, Dutta and Gandhi, 2007).²

There are many reasons for why the question of whether the firm follows a clearly defined dividend policy³ may be of interest. Firstly, it can be seen as an alternative approach to study whether signaling can be one of the motives for dividend distributions. Without expectations for future dividends, formulated by some systematic publicly announced dividend policy, deviations from such expectations cannot be identified and reacted upon. Thus, one could view a “dividend policy” as a necessary but not sufficient condition for dividends to convey information about future earnings. Secondly, a systematic and defined dividend policy may also be required by dominant corporate owners. The policy may solve agency problems between minority owners and large owners in firms with concentrated ownership (La Porta et al., 2000), optimize taxation or satisfy large owners’ preference for a more predictable dividend stream.

² Brav et al. (2005) asked dividend payers what they attempt to target with their dividend policy, and whether the target is strict or flexible. 43 per cent of the managers say that their dividend target is somewhat or very strict. In Baker et al (2007), 46.7 per cent of the respondents indicated that their firms have an explicit target dividend policy in the form of a payout ratio. A comparison of the results of Lintner (1956) and Brav et al. (2005) indicate that a change in the targets of a dividend policy has taken place. While Lintner (1956) reported that two thirds of the firms had a reasonably well-defined long-run payout ratio, Brav et al. (2005) report that only 28 per cent of the respondents target dividend payout, and another 27 per cent target growth in dividends per share. Nearly 40 per cent target dividends per share, thirteen per cent the dividend yield, while six per cent of dividend-payers claim not to target dividends at all.

³ A typical example of a defined dividend policy is publicizing dividend target payout ratios in annual reports. Additionally, the company may choose to disclose dividend policy targets in materials presented in meetings with investors and analysts. Some companies may prefer not to publish their commitments to a particular dividend policy even when they, in fact, internally follow a clearly defined dividend policy.

We contribute by providing empirical results on the existence of a dividend policy in listed firms and investigating factors affecting the choice of such a policy. Most notably, we study how the existence of a major shareholder impacts the decision. The data used in this study are from the Nordic markets, since there is more cross-sectional variety in ownership concentration levels and different ownership types than in the USA.⁴ This gives us an especially fruitful setting for a study of the link between ownership and the existence of a defined dividend policy.⁵ Our results are based on a survey conducted among Board Chairpersons of the companies listed on the Nordic stock exchanges. The survey results are combined with financial data on the actual characteristics and performance of firms, and data on the largest owners for each company including their type categorizations.

We find that 72 percent of the Nordic companies have an explicit dividend policy. Larger and more profitable companies are more likely to have a defined dividend policy in place. The dividend policy is mostly influenced by the considerations of company's capital structure and future earnings. In estimations studying the determinants for whether a firm has an explicit dividend policy or not, we get support for agency or monitoring motives (the need of a stable cash flow) rather than the signaling motive as the likelihood for a firm having an explicit dividend policy is positively related to ownership concentration as well as to the presence of large long-term private or industrial owners. We also find that the

⁴ The Nordic countries are Denmark, Finland, Iceland, Norway, and Sweden. The market capitalization value of the companies listed in these markets was slightly more than USD700 billion at the end of 2008 (World Federation of Stock Exchange statistics).

⁵ We focus on dividends, not share repurchases, since prior studies indicate that the motives for and timing of these two forms of corporate payout are quite different. The survey results of Brav et al. (2005) indicate among other things that while dividend choices are made simultaneously with (or earlier than) investment decisions, share repurchase decisions are made later. The results of Jagannathan et al. (2000) indicate that dividends are used to distribute relative permanent cash-flow shocks while repurchases are related to more transient shocks. If that is the case, a long-run "payout policy", if one is in place, is not likely to use repurchases as the distribution method. The results of Skinner (2008) support this in the sense that repurchases are found to adjust rapidly to earnings changes. Moreover, in the Nordic countries, share repurchases are still much less common than dividends.

existence of a dividend policy is negatively related to the age of the chairman. Contrasting the responses to descriptive statistics for responding firms indicates a behavioral consistency between performance and responses.

The remainder of this paper proceeds as follows. The testable hypotheses are developed in the second section. The sample and survey method are discussed in section 3. In section 4 we present the results together with discussion of their implications. A summary is given in the final section.

2 LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

There exists a vast literature on corporate dividend policy. The main determinants of a corporate dividend policy include tax optimizing, firm profitability and earnings stability, signaling (of firm investment policy) and managerial or majority owner related agency costs. There are a number of papers that study which factors are considered by companies when setting their dividend policy. Early results indicate that taxes play a role if taxation on capital gains and dividends differ, but if they do not differ, taxation does not play a major role (Amihud and Murgia, 1997). In addition, the profitability of the company and the stability of its earnings play a major role in the dividend policy (see for example Barclay, Smith and Watts, 1995, and Gaver and Gaver, 1993). Other significant factors include, among others, company's (expected) growth rate and investment opportunities and signaling about the quality of the firm's investment potential (see for example Michaely, Thaler and Womack, 1996; Myers and Majluf, 1984, and Fama and French, 2001). Finally, La Porta, Lopez de Silanes, Shleifer and Vishny (1998) observe that companies tend to pay higher dividends in countries where minority shareholders have greater protection.

A dividend policy can be formulated in several ways. In the Lintner (1956) study, the most common specification was based on the long-run target payout ratio. Current earnings are the main determinant of the current dividend while deviations from the target represent the signaling component. Dividend per share is another potential dividend policy target and is only weakly linked to current earnings performance through the corporate history.⁶ Dividends may also be related to other currently observable measures such as the company's stock price. A set level for the dividend yield is commonly used. Signaling occurs in contrast to an established dividend policy. Unless an "expected" dividend (formulated through some policy) can be determined an "unexpected" dividend (conveying the information value) cannot be distinguished. On the other hand, very rigid dividend policies leave little room for signaling. For example, a specific payout ratio which is always followed leaves no information value for the dividend in excess of what is already conveyed through the disclosure of current earnings.

A dividend policy can also be used as a monitoring tool to reduce free cash flows in order to reduce managerial agency costs associated with the separation of ownership and control in companies. La Porta et al. (2000) offer opposite predictions for dividend policy. According to the "outcome model" (La Porta et al., 2000, and Faccio et al., 2001), dividends are paid because minority shareholders force corporations to distribute cash, thereby reducing agency problems associated with free cash flow. When minority shareholders have greater legal protection higher dividend payout is expected, all other things else equal. Another view on dividends is to view them as a substitute for legal

⁶ For example, historical earnings levels have defined the possible dividend per share that can be distributed (and found optimal to distribute). Companies may then have chosen to follow a dividend policy where the target is to keep that dividend level, or to increase it at some rate, given that annual earnings allow such a policy.

protection (Easterbrook, 1984, Gomes, 2000). According to this view, firms can build a reputation of good treatment of shareholders despite weaker shareholder protection by paying out dividends. This view suggests that dividend streams would be higher in countries with weaker shareholder protection.

Of these two views, the outcome model has obtained support in cross-country analyses such as in La Porta et al. (2000) for dividend policies in 33 countries, and Mitton (2004) for 19 countries. Both found that dividend payout is higher in countries with higher legal protection. Firm level studies investigating the relationship between the degree of ownership control and dividend policy (for example Maury and Pajuste, 2002, for Finland, Gugler and Yurtoglu, 2003, for Germany, and Bena and Hanousek, 2005, for the Czech Republic) provide also support for the outcome model. These studies also report a negative relationship between the size of the ownership stake of the largest shareholder and the level of dividends. However, on a market with good minority protection, Baker et al. (2007) found that Canadian dividend-paying firms had a higher level of ownership concentration.

Some strands of literature have also investigated the impact of the identity of the controlling owner on dividend policies of firms. Farinha's (2005) results on management ownership and dividends (various U-shaped relationships between ownership levels and dividends), and the results of Eckbo and Verma (1994) on owner-managers in Canada are examples of such. Eckbo and Verma found that for Canadian corporations, dividends are typically not paid when individual owner-managers have majority voting control. In contrast, Maury (2006) reports for Finland that dividends are typically higher when private shareholders are in control.

In this paper, we study the existence of a dividend policy, not dividend levels as such. Based on the signaling motive, we can hypothesize that a dividend policy might be expected to be more common in firms with dispersed ownership, since large shareholders in firms with concentrated ownership may have access to important information through other channels than dividend signals, such as board memberships. On the other hand, empirical studies do not indicate that the signaling motive is especially important for dividends (see for example DeAngelo et al., 2009). As a result, in firms with a large owner, the agency and monitoring motives (the need for minority protection) may dominate and dictate a more strictly formulated dividend policy. This may limit large owner's opportunities to divert profits but also limits chances for dividend signaling. Also large owners may favor such a policy, since large owners (unless they are institutional owners such as pension funds) are typically poorly diversified, and may be in need of a regular, more predictable dividend stream from the firm. The latter case may be especially important if the large owner has a long horizon with unwillingness to selling shares as an alternative to dividends.⁷ This leads to the following two alternative hypotheses:

First hypothesis: If the agency and monitoring motives dominate then *companies with a concentrated ownership (with large long-term owners) are more likely to have a specified dividend policy.*

Second hypothesis: If the signaling motive dominates *companies with a dispersed ownership are more likely to have a specified dividend policy.*

⁷ Liljeblom and Vaihekoski, 2009, provide related survey evidence regarding investor and firm short-termism.

3 DATA

3.1 The survey data

This paper is based on the results of a questionnaire⁸ directed to all Chairpersons of the Board of firms in the Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden). Appendix 1 of this paper lists the questions used in the survey.

The survey was conducted in two stages. In the first stage, the questionnaire was sent to the chairmen in the Nordic firms listed on the exchanges operated by the OMX (now NASDAQ OMX) including the national stock markets of Denmark, Finland, Iceland, and Sweden. This took place in early December 2007. In the second stage, in May 2008, the questionnaire was sent to the chairmen in the firms listed at the Oslo Børs in Norway. The questionnaire was sent as a letter directed to a named respondent. The names and addresses of the chairmen were hand-collected into a database. Ultimately, the questionnaire was sent to 780 firms in total.

The respondents were promised total anonymity. Therefore the responses and the respondent's identity are only available to the researchers and the results are reported only as a group. The overall response rate was 20.4 per cent, ranging from 10.3 per cent for Norway to 29.3 per cent for Sweden.⁹ The chairpersons were the most active respondents (158 responses), although the response rate was almost the same for all categories of

⁸ The design of the questionnaire was carefully planned. Prior to the actual survey, the questionnaire was tested on subsets of executives in Sweden and in Finland. For more information on the survey details see Brunzell et al. (2013).

⁹ The response rate is typical for surveys of this type. For example, Brav et al. (2005) had a response rate of 16 per cent in a study among selected public and private US companies, Graham and Harvey (2001) a response rate of 10.4 per cent, Baker, Mukhrjee and Paskelian (2006) a response rate of 27.3 per cent in their Norwegian study, and Baker et al. (2007) a response rate of 35.4 per cent.

respondents. Table 1 reports the number of responses from Chairmen from each country and the corresponding response rate.

3.2 Background data

The responses were matched with background information on firm financials and ownership concentration. The financial data are collected from three sources. Our primary source is the Amadeus database. Additional items have been collected from Datastream, when not available in Amadeus. Finally, annual reports downloaded from internet sources have provided an additional data source in cases where information has not been available in other databases. The financials are from the last reporting year completed prior to the questionnaire was sent out. This period is year-end 2006 for Denmark, Finland, Iceland, and Sweden and year 2007 for Norway. Year-end exchange rates have been used to convert all financials to the same currency, euro, which already was the currency of Finland. Financial data were collected not only for responding firms, but also for the whole market, to facilitate relating our sample to the whole population of the survey.

Table 2 reports descriptive statistics for the firms from which we received a response from the Chairperson and for the whole population, separately for financial and non-financial firms.¹⁰ The value of solidity is not reported for the financials due to cross-sectional differences in how it is reported (that group of firms is very heterogeneous, including for example listed funds or investment companies, as well as insurance companies).

¹⁰ Many studies restrict their sample strictly to industrial firms, since financial variables such as solidity, and the value of total assets, are on a very different level for financials vs. non-financials. Since our prime focus is the responses to the questionnaire, which do not suffer from differences in measurement, we include all respondents. However, we utilize sector dummies in all models and also control for clustered standard errors (financials vs. non-financials) in model IV.

Table 2 shows that in general our non-financial sample firms (129 in total) are marginally larger, and the financial sample firms (29) smaller, than the population of firms to which the questionnaire was sent in terms of turnover and amount of total assets. Our non-financial firms are marginally more profitable than the population of firms (higher Return on Assets or ROA), whereas our sample of financials (67 firms in our sample) are slightly less profitable. The differences are, however, in most cases fairly small and not statistically significant. Overall, we can conclude that our sample represents the total population quite well.

Ownership data for the firms have been collected primarily from Amadeus, and secondarily from annual reports from the web. The collected Amadeus data represent the ownership situation at the time point of the survey, while data from the annual reports are from the last reporting year prior to the survey. We collected data both on the ownership share (per cent of equity) of the largest shareholder, as well as the sum of the ownership share of the five largest owners (when available). The ownership is quite concentrated in the Nordic firms, with 42 firms (14 per cent) of firms having a majority owner, controlling more than 50 per cent of the shares, and 179 (60 per cent) having an owner controlling 20 per cent or more of the equity.

We also tried to identify the owner type of the largest owner. The largest owner type in our sample are private investors (or families); 37.7 per cent of the respondents coming from such firms. The other larger groups are firms owned by mutual funds or investment companies (16.4 per cent), other firms (12.1 per cent), or “activist” owners including, for example, private equity firms and activist hedge funds (11.4 per cent).

4 RESULTS

4.1 Survey responses

We asked the Chairpersons to indicate whether their company had a defined dividend policy. Two alternatives ('yes' and 'no') were given. Panel A in Table 3 shows the results. Out of the 158 responses we got from the Chairpersons, 152 provided an answer to this question. 110 companies (72.4 per cent) had a defined dividend policy, 42 (27.6 per cent) did not.

In addition, we asked the respondents to indicate the factors that are important in the formulation of the company's dividend policy. Alternatives given ranged from 1 (not important) to 5 (very important). The results are provided in Panel B of Table 3. They show that even some of the respondents who indicated that their company does not have a defined dividend policy, answered these additional questions suggesting that the responses represent the effect of the given factors on the actual dividend decisions made in general - even when an explicit dividend policy was not defined.

The most important factor while considering the dividend policy is the goal of maintaining a capital structure that allows the company to undertake good investments (mean reply 4.17), stability and future earnings (4.12.), sustainable change in earnings (3.85), and company's aim to follow long term payout policy (3.63). The results are mostly in line with the earlier studies. An example is the Baker, Mukhrjee and Paskelian (2006) study of Norwegian managers where the same factors as in our study emerged as the most important ones (expected future earnings, stability of earnings, and current degree of financial leverage, a variable which resembles our capital structure variable). Also in a

study of Canadian firms, Baker et al. (2007) found that the highest scores were obtained by two alternatives, the expected future earnings, and the stability of earnings, factors which in our study were combined into a single question that ranked as the second most important factor. The factor perceived as the most important one in our study, maintaining capital structure, was ranked as the 13th most important among 22 factors in Baker et al. (2007). Some differences to prior studies emerge also due to differences in the questionnaires. Brav et al. (2005) found the negative consequences of the dividend reductions, consistency with historic payout policy, information content of the dividends, as well as the stability of future earnings to be the most important factors for dividend policy.¹¹

The least important factors were related to salary increases and reductions in company's employees (2.15), dividend policy of the competitors or other companies within the same sector (2.34), and satisfaction of the minority shareholders (2.59). Similar to Brav et al. (2005) we do not find taxes (2.69) or the desire to attract new investors (3.13) to be highly important drivers of the dividend policy. The chairpersons also indicated that the desire to accumulate cash at hand (for the company) is fairly important (3.34) which gives indirect evidence against the idea that dividends are paid out in order to protect shareholders against unwise use of excess free cash flows.

4.2 Determinants of the existence of an explicit dividend policy

In order to test our hypotheses, we estimate a binary model where the dependent variable gets a value of one for those companies which answered affirmatively to the question

¹¹ The two studies of Brav et al. (2005) and Baker et al. (2007) are interesting benchmarks having been conducted on two markets with different ownership concentration: the U.S. market with wide ownership dispersion, and the much more concentrated Canadian market. The five Nordic markets studied in our paper exhibit ownership structures both from very concentrated and from widely dispersed firms.

concerning an explicit dividend policy, and zero for the others. As explanatory variables in the base-case, we include financial control variables for size and profitability. We expect a defined dividend policy to be more common in larger firms as these firms are likely to have a larger investor universe including also dividend-dependent owners. For profitability we also expect a positive sign since a precondition for dividend distributions is that the firm can afford them.

In line with the results of Graham and Harvey (2001) concerning the relationship between a target equity ratio and CEO age, we include the age of the chairman, collected mainly from annual reports and complemented by various internet and press sources such as press releases at the appointment of a new chairman, and birthday interviews. We also include firm age, defined as the age reported for the firm since its foundation, collected from annual reports. We expect that older firms may be more likely to have a dividend level by tradition, and may find less need to formulate an explicit dividend policy. We also expect that older chairmen may be less used to the practice of openly conveying an explicit dividend policy to investors. According to Graham and Harvey (2001) chairmen are more concerned with specifying other goals such as a target equity ratio.

In addition, we include variables related to ownership concentration. First, we use *Ownership_5_largest*, the aggregated equity ownership percentage by the five largest owners, as an explanatory variable. According to our first hypothesis, we expect that firms with more concentrated ownership are more likely to have an explicit dividend policy. We also test three dummies for specific owner categories which may be more dividend-dependent. The first of these is *Owner_LT* for long-term owners which for a variety of reasons may find it difficult to trade in the stock. *Owner_LT* takes the value of one if the

largest owner in the firm is a state, a municipality, a foundation or a co-operative. *Owner_Private* is a dummy for a private owner as the largest, and *Owner_INDUSTRY* is a dummy for a non-financial firm as the largest owner. These dummies leave the financial owners (many of which are likely to have shorter horizons for their holdings with higher willingness to substitute between corporate distributions and selling shares) such as banks, insurance companies, and mutual funds as the residual owner class.

The tested model is, in its fullest form, a Probit-model with robust standard errors specified as follows:

$$\text{Div_policy_dummy}_i = \beta_0 + \beta_1 (\text{Ownership concentration}) + \beta_2 (\text{Age variables}) \\ + \beta_3 (\text{firm controls}) + \beta_4 (\text{country \& industry dummies}) + \varepsilon_i, \quad (1)$$

where the ownership concentration measures include the sum of the fraction of equity owned by the five largest owners (*Ownership_5_largest*) as well as the three dummies for the type of the largest owner (*Owner_LT*, *Owner_Private*, and *Owner_INDUSTRY*), the age variables include *Firm_age* and *CM_age*, the firm controls include either the logarithm of turnover or total assets, $\ln(\text{Turnover})$ or $\ln(\text{Total_Assets})$, as well as the return on equity *ROE* defined as net profits over equity. As country dummies, we include the dummies for *Finland*, *Norway*, and *Sweden*, leaving Iceland and Denmark without a dummy.¹² Furthermore, we include sectors dummies for financial and manufacturing firms. The results for different model specifications are reported in Table 4.

¹² The results are not sensitive to including one more dummy. However, Iceland and Denmark receive (once included either one by one, or jointly while leaving some other country out) quite similar intercept values.

First, we estimate our simplest model where the dividend policy indicator is conditioned only on corporate control variables. Size is measured using the natural logarithm of the turnover (Model Ia) or of the total assets (Model Ib). Both size variables are measured in euros. The results show that the Model Ib fits the data better with pseudo- R^2 equal to 17.86 per cent. We get the expected signs for all of these control variables. In model Ib, both size and ROE are statistically significant, indicating that an explicit dividend policy is significantly more common in larger and more profitable firms. The coefficients for the country dummies are all significantly different from zero, indicating that an explicit dividend policy is significantly more common in Finland, Norway and Sweden, as compared to firms from Denmark and Iceland.

Next, we test our main hypothesis by including an ownership concentration measure. According to the first hypothesis, if the company has a long-term owner, and if the ownership is more concentrated, we expect to observe a defined dividend policy. The results from model IIa give support for the first hypothesis since concentrated ownership (as measured by *Ownership_5_largest*) significantly increases the probability of an explicit dividend policy (a t-value of 2.15, significant at the 5 per cent level). The age variables, also introduced in this model, obtain the expected signs, but are not statistically significant.

Finally, we introduce the owner type dummies for the largest owner. The results for model III show that besides ownership concentration as such, the effect of having a large owner either from the category defined through *Owner_LT* significantly increases the probability for the firm of having an explicit dividend policy. *CM_age* is also significant at the 5 per cent level with this model specification, supporting the idea that firms with older chairmen are less likely to have an explicit dividend policy.

Of the industry dummies the dummy for financials is typically significant (except in model Ib). We re-estimate the Probit-specification of model III adjusting for clustered standard errors according to the financial firm dummy variable. These results are reported in the last column of Table 4 (model IV). We find that the adjustment strengthens the statistical significance of most key explanatory variables. The ownership concentration variable *Ownership_5_largest* loses its significance but instead all the three large owner type dummies (*Owner_PRIVATE* and *Owner_INDUSTRY*) are significant at the one per cent level.

The results in this section strongly support our first hypothesis. Ownership concentration (having a large non-financial owner potentially more dependent on a stable dividend stream) significantly increases the probability that the firm has an explicit dividend policy. This can be interpreted as supporting the agency or monitoring motives - or the need for cash - as determinants for the existence of a dividend policy rather than the signaling motive. The signaling explanation, our second hypothesis, would have predicted a dividend policy to be more likely in firms with disperse ownership reflecting needs to inform outside shareholders.

4.3 Additional analysis

Next, we investigate differences between firms with or without an explicit dividend policy more closely. In the specific questions concerning the factors of a firm's dividend policy, arguments such as maintaining a capital structure, and stability and future earnings, obtained high scores. We will now look more in detail at the descriptive statistics for

subgroups. We focus on the two motives obtaining the highest scores in our survey (see Table 3); the motives of “maintaining capital structure”, and “stability and future earnings”.

Table 5 reports descriptive statistics for firms from the dividend policy group (columns one and two) or the whole population (columns three or four), divided into two groups based on their responses to the first two motives in Table 3. In Panel A, we analyze whether firms responding with the highest score of 5 to the maintaining capital structure- motive differ in terms of their solidity from the other respondents. Only non-financial firms are included in the analyses of Panel A. We find that among firms with a dividend policy, as well as in the whole group, solidity is higher for firms giving the highest score for this motive. However, the difference is significant only in the whole population of respondents.

In Panel B, we analyze whether respondents giving the highest score for “stability and future earnings” as a motive for dividends have higher ROEs, dividend yields, or more stable dividend yields, as might be expected. We find that these expectations concerning signs hold among firms with a dividend policy, but only the difference in average ROEs is significant at the 1 per cent level. Also in the total population, firms giving the highest score for this motive have a significantly higher ROE. These results give some support for the perception that the behavior of the responding firms is in line with their questionnaire responses.

5 CONCLUSIONS

The results of our extensive survey among Nordic listed firms on their commitment to dividend policy show that 72 percent of the Nordic companies have a specified dividend policy. Furthermore, the results indicate that the dividend policies are mostly influenced by the considerations of the company's capital structure and future earnings.

In estimations studying the determinants for whether a firm has an explicit dividend policy or not, we find that firms with older chairmen appear to prefer a looser commitment to payout policy as their firms are significantly less likely to have an explicit dividend policy in place. We also document that larger and more profitable companies are more likely to commit to a defined dividend policy.

Finally, the likelihood for a firm having an explicit dividend policy is significantly positively related to ownership concentration as well as to large long-term private or industrial owners. This gives indirect support for agency / monitoring motives rather than the signaling motive which is expected to be more prevalent in firms with dispersed ownership. Overall, our results suggest that the relatively concentrated ownership structures in Nordic firms play a role in shaping dividend policy over traditional tax or signaling based rationales for a dividend policy.

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APPENDIX: The questions from the survey included in this study.

1. Does the Company have a defined dividend policy? Yes No

| | |
|--|--|
| | |
|--|--|

2. How important are the following factors in Your choice of Company dividends/dividend policy?

| | not important - very important | | | | |
|--|--------------------------------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| — A sustainable change in earnings | | | | | |
| — Stability and future earnings | | | | | |
| — The Company intends to pay a fraction of given earnings to shareholders for a long-term (given payout ratio) | | | | | |
| — The market price of the Company's stock is enhanced by dividend yield (given dividend yield) | | | | | |
| — Accumulate cash on hand | | | | | |
| — Financial leverage verses equity (target company structure) | | | | | |
| — Tax, i.e., Company shareholders pay dividend tax | | | | | |
| — Impact from the Company's current owner | | | | | |
| — Attract new investors | | | | | |
| — Method of satisfying minority owners | | | | | |
| — Maintain a capital structure that will allow the company to make good investments | | | | | |
| — Dividend policy of competitors or other companies within same sector | | | | | |
| — Salary increases/reductions of Company employees | | | | | |

TABLE 1. Descriptive statistics

Descriptive statistics are reported for the responses received from a survey directed to the Chairmen (CMs) of all companies listed at the Nordic Stock Exchanges at the end of 2007 (except for Norway) and in May 2008 (Norway). Survey was sent to a total of 780 companies.

| | CM |
|---|-----------|
| Panel A: Number of responses | |
| Denmark | 36 |
| Finland | 18 |
| Iceland | 4 |
| Norway | 20 |
| Sweden | 80 |
| TOTAL | 158 |
| Panel B: Response rates (% , per cent) | |
| Denmark | 19.1 % |
| Finland | 13.8 % |
| Iceland | 18.2 % |
| Norway | 10.6 % |
| Sweden | 31.7 % |
| ALL | 20.3 % |

TABLE 2. Descriptive statistics for responding firms and the target population

Descriptive statistics are reported for the listed firms in Denmark, Finland, Iceland, Norway and Sweden that were targeted in the survey (the “Population”, 780 firms). We also report statistics for the responding firms (the “Sample”, 158 firms) from which firms we received a filled-in questionnaire from the Chairperson. The firms are divided into Financials (banks, investment and insurance companies) and Non-financials based on the sector codes used by the OMX exchanges and Oslo Børs (both use the same ten categories). We report averages, medians, standard deviations, and the number of firms for which the financial information item has been obtained (“Obs”) for the following variables: Turnover (in 1000s of euros), No. of employees, Total assets (in 1000s of euros), Return on total assets (ROA, defined as Net Profit to Total Assets) and Solidity (defined as Equity to Total Assets). The financial data apply to the last available reporting year prior to the date that the questionnaire was sent out (typically 2007 for Norway and 2006 for the others). The data were collected from Amadeus, Datastream, and annual reports for the companies.

| | | Non-financials | | Financials | |
|-------------------------------|----------|----------------|------------|------------|------------|
| | | Sample | Population | Sample | Population |
| Firms | | 129 | 615 | 29 | 165 |
| Turnover, 1000 EUR | Mean | 1 445 980 | 1 058 814 | 461 304 | 543 775 |
| | Median | 103 395 | 101 826 | 47 603 | 53 981 |
| | St. dev. | 5 772 367 | 3 939 259 | 1 113 931 | 2 039 941 |
| | Obs | 128 | 604 | 29 | 142 |
| Number of employees | Mean | 3 505 | 4 405 | 912 | 1 520 |
| | Median | 439 | 396 | 183 | 135 |
| | St. dev. | 10 394 | 22 460 | 2 296 | 4 679 |
| | Obs | 128 | 569 | 29 | 139 |
| Total assets, 1000 EUR | Mean | 1 412 455 | 1 049 915 | 3 870 473 | 12 379 270 |
| | Median | 104 807 | 102 364 | 297 256 | 570 934 |
| | St. dev. | 5 168 055 | 3 696 905 | 11 530 148 | 53 042 764 |
| | Obs | 128 | 615 | 29 | 165 |
| ROA, percent | Mean | 4.80 | 4.22 | 5.10 | 5.95 |
| | Median | 7.85 | 6.40 | 2.24 | 2.40 |
| | St. dev. | 17.82 | 16.28 | 7.03 | 9.64 |
| | Obs | 127 | 613 | 29 | 162 |
| Solidity, percent | Mean | 46.88 | 49.07 | | |
| | Median | 45.51 | 45.58 | | |
| | St. dev. | 19.34 | 20.11 | | |
| | Obs | 127 | 610 | | |

TABLE 3. Dividend policy

Chairmen were asked whether the company has a defined dividend policy. Then they were asked to indicate the degree to which the given factors are of importance in their choice of dividend policy. Answers were given on a scale from one (not important) to five (very important). Panel A reports the results about the existence of the policy. Panel B reports the results for the factors influencing the dividend policy sorted from the most important to least ones. Note that the factor names have been shortened for this table (original wording and the order in the questionnaire can be seen from the Appendix). N and N_{empty} are the total number of respondents with non-empty or empty reply, respectively.

| | | N | Yes | No | | |
|---|----------|----------|-------------|---------------|------------------|--------------------------|
| Panel A: Dividend policy | | | | | | |
| All | N | 152 | 110 | 42 | 5 | |
| | % of all | | 72.4% | 27.6% | | |
| Panel B: Factors | | N | Mean | Median | Std. dev. | N_{Empty} |
| Maintain capital structure | | 140 | 4.17 | 4 | 0.85 | 4 |
| Stability and future earnings | | 139 | 4.12 | 4 | 0.89 | 4 |
| Sustainable change in earnings | | 134 | 3.85 | 4 | 0.96 | 4 |
| Firms intends to follow long-term payout policy | | 142 | 3.63 | 4 | 1.25 | 4 |
| Target capital structure | | 133 | 3.49 | 4 | 1.00 | 4 |
| Accumulate cash on hand | | 135 | 3.34 | 3 | 1.08 | 3 |
| Attract new investors | | 136 | 3.13 | 3 | 1.08 | 3 |
| DY enhances stock price | | 131 | 3.02 | 3 | 1.12 | 3 |
| Impact from the Owner | | 133 | 2.91 | 3 | 1.16 | 3 |
| Taxes | | 133 | 2.69 | 3 | 1.14 | 3 |
| Satisfy minority owners | | 127 | 2.59 | 3 | 1.08 | 3 |
| Dividend policy of competitors | | 135 | 2.34 | 2 | 1.05 | 2 |
| Salary increases /employment | | 131 | 2.15 | 2 | 1.05 | 2 |

TABLE 4. Determinants for the existence of a specified dividend policy

The table reports first the results for the estimation of Probit-models, where the dependent variable is a dummy with a value of one when a company's chairperson indicated that the company has a defined dividend policy, and zero otherwise. The explanatory variables are: a constant, the natural logarithm of turnover, the natural logarithm of total assets, net profit over equity (*ROE*), the aggregated ownership percentage by the 5 largest owners, dummies for owner type (*Owner_LT* for long-term, potentially dividend-dependent owners: a state or municipality, a foundation, or a co-operative as an owner; *Owner_PRIVATE* for a private owner, and *Owner_INDUSTRY* for an industrial one), firm age, the age of the chairman, and three country dummies (for Finland, Sweden, and Norway, leaving Denmark and Iceland without a dummy). All models include sector dummies for industrial (manufacturing) and financial firms. Robust standard errors, and standard errors adjusted for clusters (a financial / nonfinancial firm) have been used. * (**) denotes statistical significance at the 10 per cent (5 per cent) level, one-sided test. The Wald Chi², its probability value, and the pseudo-R² are also reported when available.

| Explanatory variables | Model Ia | Model Ib | Model II | Model III | Model IV |
|----------------------------|-------------------|--------------------|-------------------|--------------------|--------------------|
| Constant | -2.1582 -1.94* | -2.5414 -2.76** | -2.7900 -2.16* | -2.4556 -1.80** | -2.4556 -2.73** |
| <i>ln(Turnover)</i> | 0.1850 2.01* | | | | |
| <i>ln(Total_Assets)</i> | | 0.2029 2.75** | 0.2830 3.22** | 0.2791 3.06** | 0.2791 3.97** |
| <i>ROE</i> | 0.0037 1.41 | 0.0054 1.74* | 0.0057 1.80* | 0.0067 2.00* | 0.0067 6.46* |
| <i>Ownership_5_largest</i> | | | 0.0140 2.15* | 0.0123 1.80* | 0.0123 1.63 |
| <i>Owner_LT</i> | | | | 1.4886 2.09* | 1.4886 17.43* |
| <i>Owner_PRIVATE</i> | | | | 0.5059 1.62 | 0.5059 3.22** |
| <i>Owner_INDUSTRY</i> | | | | 0.2647 0.68 | 0.2647 3.93** |
| <i>Firm_age</i> | | | -0.0035 -0.70 | -0.0037 -0.73 | -0.0037 -0.93 |
| <i>CM_age</i> | | | -0.0211 -1.39 | -0.0306 -1.97* | -0.0306 -3.35* |
| <i>Finland</i> | 1.2297 2.33** | 1.4040 2.70** | 1.4907 2.60** | 1.6147 2.76** | 1.6147 5.20** |
| <i>Norway</i> | 1.1273 2.26** | 1.0739 2.35* | 0.8880 1.84** | 1.0010 1.96* | 1.0010 15.45* |
| <i>Sweden</i> | 0.5400 1.81* | 0.6821 2.38** | 0.7380 2.46** | 0.8154 2.48** | 0.8154 2.70** |
| <i>Sector dummies</i> | Included | Included | Included | Included | Included |
| Clustered st.dev. | No | No | No | No | Yes |
| Obs (N) | 142 | 147 | 143 | 143 | 143 |
| Wald Chi 2 | 26.76 | 31.35 | 32.72 | 35.44 | n.a. |
| Prob | 0.0004 | 0.0001 | 0.0003 | 0.0007 | n.a. |
| Pseudo R ² | 0.1750 | 0.1783 | 0.2252 | 0.2635 | 0.2635 |

Table 5. Descriptive statistics for dividend policy subgroups

The table reports descriptive statistics for different subgroups of firms answering the questionnaire's questions concerning the two most popular motives for dividends, those of maintaining capital structure (Panel A) and stability and future earnings (Panel B). In Panel A, average solidity (equity to total assets) is reported for the various subgroups, however only including non-financial responding firms. In Panel B, average return on equity ROE, dividend yield for the year closest to the questionnaire time-point, as well as the standard deviation in dividend yields for the 3 years surrounding the time-point for the questionnaire are reported. The t-values come from tests of group differences assuming unequal variances. * (**) denotes statistical significance at the 10 per cent (5 per cent) level, one-sided test.

| Dividend policy determinant | Firms with an explicit dividend policy | | All answering firms | |
|--|---|---------------------------|----------------------------|---------------------------|
| | Questionnaire response <5 | Questionnaire response =5 | Questionnaire response <5 | Questionnaire response =5 |
| Panel A. Maintaining capital structure | | | | |
| Average solidity | 44.7928 | 47.2253 | 44.5570 | 52.1876 |
| t-value for diff. | | 1.13 | | 3.64** |
| Panel B. Stability and future earnings | | | | |
| Average ROE | 18.8803 | 23.6013 | 10.1168 | 15.7954 |
| t-value for diff. | | 3.49** | | 5.23** |
| Dividend yield | 3.3965 | 3.4474 | 2.6231 | 2.4177 |
| t-value for diff. | | 0.04 | | -0.18 |
| Average st.dev. of dividend yield | 2.1773 | 1.6293 | 2.1332 | 1.7053 |
| t-value for diff. | | -0.59 | | -0.46 |