

SHORT-TERM EXPECTATIONS IN LISTED FIRMS: THE MITIGATING IMPACT OF LARGE OWNERS

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Work in progress. Comments are welcome.

ABSTRACT

We report empirical evidence on the disciplining role of large owners in reducing managerial myopia. Using data from a large Nordic survey, we find that companies to a reasonably high degree feel that external pressure for a good result in the short-term generates a conflict with the company's long-term goals. Concentrated ownership as a corporate governance mechanism can mitigate that pressure: the CEO feels significantly less pressure in the presence of large (potentially more long-term) shareholder in the firm. Firms subject to a higher pressure undertake more actions to accommodate for the pressure. Again, the impact of a large owner is beneficial, since such firms undertake significantly less often actions that are likely to destroy value, such as adjusting their long-term investments or R&D. Finally, we find that financial analysts create the strongest pressure, and CEOs of firms with a higher degree of ownership concentration experience significantly less pressure from them.

KEYWORDS: corporate governance, short-term behavior, underinvestment, ownership concentration, Nordic countries, myopia, CEO

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INTRODUCTION

A number of studies have reported evidence of different corporate actions that do not serve the long-term interest of the company or its shareholders (see, e.g., Detchow et al., 1996; Klein, 2002; Brockman, 2008; Bushee, 1998). These actions include, among others, earnings manipulation, unnecessary cost cutting, or underinvestment.¹ The main explanation offered for corporate myopia or short-termism is the short-term focus of the management. The compensation systems with a short-term focus, or the short employment horizons, combined with weak corporate governance, has been suggested as the main reasons for the myopia (for empirical support, see e.g. Marquardt et al. (2009)). Such managerial short-termism would be associated with an unsolved agency problem between presumably long-term shareholders and the more short-term management.

However, short-termism may also be driven by the short time horizons of the owners', and not the managers'.² We add to the earlier literature on the ownership determinants of managerial myopia by studying the disciplining role of a large owner when it comes to the pressure for

¹ E.g. Graham, Harvey, & Rajgopal (2006) find in their survey of senior financial executives in the U.S. that managers seem to be willing to undertake short-term actions which may be value destroying (such as reducing R&D, advertisement, maintenance, and delaying the start of a new project) in order to meet performance targets.

² Several papers suggest that different owner types may have different investment horizons and focus. E.g. Koh and Hsu (2005) find support for the co-existence of both transient and long-term oriented institutions, with different views on earnings management. Suto and Toshino (2005) find a short-term bias in fund managers' investment time horizons. Liljeblom and Vaihekoski (2009) classify firms by their ownership structure (such as listed firms, co-operatives, firms controlled by the state or an activist owner) into potentially short-term and long-term ones, and find significant differences between both the short-term pressure felt by the firms in the two groups, and their actions (such as their investment practices). Short-term investors may also e.g. avoid dividends and prefer share repurchases (Gaspar et al., 2005), and weaken the governance mechanisms of a firm, thereby leading e.g. to higher levels of managerial compensation (e.g., Clay, 2000). Bushee (1998) indicates that due to the frequent trading and short-term focus of institutional investors, they may encourage managers to sacrifice long-term investments such as R&D to meet current earnings targets.

short-term actions, felt separately either by the Chairman, CEO or CFO.³ The results of e.g. Klein (2002), Becker et al. (2008), and Brockman and Yan (2009) indicate that large shareholders or a large and active blockholder as such can have an effect in e.g. reducing earnings manipulation, increasing the profitability of the firm, reducing executive compensation, and shaping the firm's information environment. Besides the owners, we also study the role of other stakeholders in creating short-term pressure. Given that the actions of the firm are influenced by the time horizons of its shareholders as well as other stakeholders, knowing more about the differences in such owners' and stakeholders' horizon is of importance. Finally, we also study the actions taken by the companies to alleviate the short-term pressure.

We use data for the Nordic countries, and concentrate on the largest owners. The ownership structures of Nordic companies are often much more concentrated than those of U.S. firms, and there are more firms with a substantial family ownership listed on the Nordic markets. In addition, liquidity on the Nordic stock market is lower than on the U.S. market. Therefore the position of the large Nordic blockholders⁴ may by necessity be more long-term than the proportionally smaller blockholder positions in the U.S., held e.g. by more trade-oriented mutual funds. In such a setting, the percentage of the equity owned by the largest owner could work better as an indicator for the presence of a long-term oriented owner, as compared to

³ See also e.g. Shleifer and Vishny (1997), who discuss large investors as a corporate governance mechanism. Several theoretical papers such as Burkart et al (1997), and Bolton and von Thadden (1998), have analyzed various potential costs and benefits of ownership concentration. Typically, e.g. monitoring benefits and benefits in terms of management control are associated with large blockholdings.

⁴ We use the terms blockholder and large owner interchangeably. Since the large stake held by the largest owner is typically also the main cause for concentrated ownership, we may also occasionally refer to ownership concentration.

more liquid markets, where the largest owners' stake is typically not as large.⁵ I.e., we assume that since exit is harder, and the control positions are larger, large positions are not likely to have been chosen by the large investors if they were not prepared to stay as investors in the firm for a longer time. We therefore expect that the pressure for short-term actions felt by the management is lower in firms where such large shareholders are present. Chances of finding significant differences in our data set are enhanced by the existence of sufficient cross-sectional variability in the ownership structures on the Nordic markets; our sample includes both firms with concentrated ownership structures, as well as widely held firms where all owners are small.

We find support for that hypothesis: the pressure for short-term behavior felt by the CEO is significantly reduced by the presence of a large owner. Firms subject to a higher pressure also seem to undertake more actions to accommodate for short-term pressure. Again, the controlling impact of a large owner is beneficial, since such firms undertake significantly less often actions that are likely to destroy value, such as adjusting their long-term investments or R&D. Finally, strongest pressure is created by financial analysts, and CEOs of firms with a higher degree of corporate control experience significantly less pressure from them.

Our study combines three sources of data: (1) unique survey data on perceived pressure for short-term decisions, its origins, and corporate reactions to it, (2) financial data on actual firm characteristics and performance, and (3) data on the largest owners. Our survey data is based on the responses on a questionnaire, directed to the Chairpersons, CEOs, and CFOs of all

⁵ In e.g. Brockman et al. (2009) for the U.S., outside blockholders on average own between 14.52% and 18.56% of shares outstanding (and that number may include more than one outside blockholder), whereas in our dataset, the single largest owner on average owns 27.82% of the equity, and the 5 largest owners together own 44.14%.

listed companies on five Nordic stock exchanges (Denmark, Finland, Iceland, Norway, and Sweden) in 2007 and early 2008.

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We contribute to the previous literature in several ways. First, we study the mitigating role of large owners on a market where the variable is more likely to be associated with a long-term focus as compared to the more liquid and dispersed U.S. market.⁶ Second, we report results separately for three respondent categories: the Chairperson of the Board, the CEO, and the CFO. A study of their potentially differing roles in this respect has not been made earlier. Our results show that the variables affecting the pressure for short-term goals are somewhat different in these groups. That information can be useful when putting proper incentives in place in the firm. Finally, the results allow us to compare the issues across different Nordic countries, as well as with the findings of Liljeblom and Vaihekoski (2009) from Finland alone.

The remainder of this paper proceeds as follows. In section 2, we discuss the related literature in more detail as well as develop testable hypotheses. The research design and methodology is presented in section 3. Section 4 presents the main empirical results together with discussion of their implications. The final section concludes and offers some suggestions for further research.

1 PREVIOUS RESEARCH AND HYPOTHESIS DEVELOPMENT

⁶ Such a variable has not been used in survey studies of short-term pressure, but it has been discussed earlier, and occasionally used e.g. as a determinant for R&D investments, see e.g. Baysinger et al. (1991). Some indirect support is also provided by Groot (1998), who find a weak negative relationship between perceived short-term pressure, and the number of votes held by a trust office (facilitating control by voting at shareholders meetings).

The concept of short-termism, or managerial myopia, refers to an excess orientation towards short-term profits so that even decisions, which compromise long-term goals of the firm, may be made. We will start by discussing the impact of large owners on the degree of short-term pressure felt, as well as potential shareholder and stakeholder sources for such pressure. Next, we will discuss potential consequences of short-term pressure, in terms of actions taken by the firm.

2.1 The impact of ownership

Theoretically, if agency problems can be avoided (alleviated through corporate governance mechanisms), managers' incentives should be aligned with those of the owners. However, weak corporate governance together with short-term incentives for the managers can lead to agency problems and manager myopia. Even without agency problems, myopic behavior can occur at the firm level as a result of managers acting in the interest of owners who are short-term.

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However, a large owner may reduce such myopia in either case.⁷ In a recent paper, Edman (2009) suggests that the presence of blockholders could reduce managerial myopia since blockholder trading can make the stock price more informative (reflecting fundamental value rather than short-term profits). One of the model predictions is that blockholders are particularly valuable in promoting unobservable investment. This prediction is supported e.g.

⁷ The empirical evidence on the various effects of a large owner has historically been rather mixed. Holderness (2003) concludes in his survey of blockholders and corporate control that surprisingly few corporate decisions have been shown to be different in the presence of a blockholder, and that ownership concentration appears to have little impact on firm value. The more recent evidence e.g. by Becker et al. (2008) and Brockman and Yan (2009) contradicts this view. Cronqvist and Fahlenbrach (2007) in turn show that blockholders do have significant fixed effects on firm policies, but that they are very heterogeneous.

by Baysinger, Kosnik, & Turk (1991) and Lee and O'Neill (2003), who find a positive relationship between ownership concentration and R&D investments. Cronqvist and Falhllenbrach (2009) in turn find that while U.S. blockholders are highly heterogeneous, the appearance of a certain types of blockholders is associated with a later increase in investments. Edman (2009) interprets this finding as supportive to the idea that a blockholder allows the manager to pursue investment projects which he in fear of interim turbulence has earlier avoided (i.e., a large owner could reduce managerial short-termism). Support for a positive relationship between non-financial corporate block ownership and R&D investments are obtained also by Tribo, Berrone, & Surroca (2007) using Spanish data. While these papers have mainly focused on the relationship between blockholders and investment, other effects of the presence of a large blockholder have also been reported. E.g. the results of Klein (2002), Becker et al. (2008), and Brockman and Yan (2009), indicate that large shareholders / a large and active blockholder can have an effect in e.g. reducing earnings manipulation, increasing the profitability of the firm, reducing executive compensation, and shaping the firm's information environment. Chen et al. (2007) obtain results supporting the hypothesis that only independent institutions with long-term investment will specialize in monitoring, in which case their holdings are related to post-merger performance.

Evidence for short-termism related to transient owners is in turn offered e.g. by Bushee (1998), Liu (2005), Burns, Kedia, & Lipson (2008), and Chen et al. (2007). Bushee (1998) developed a method to classify institutional investors into shorter and longer-term investors based on characteristics of their portfolio such as its concentration and turnover, and the trading sensitivity to current earnings. Using an indicator for short-termism, he found that high turnover and momentum trading by institutional investors encourages myopic investment behavior (lower corporate R&D investments) when such investors have extremely high

ownership levels in a firm. Otherwise, institutional ownership rather reduces the pressures on managers' myopic investment behavior. Liu (2005) found similar evidence in a study of earnings misstatement. Her results suggest that a high ownership by transient owners is associated with a higher degree of earnings misstating (i.e. suggesting that transient ownership can induce manager myopia), whereas the level of ownership by dedicated institutional owners was not. Burns et al. (2008) in turn found that ownership by transient institutions is related with both the likelihood and magnitude of financial restatements, suggesting that ownership by institutions with short investment horizons may degrade the quality of financial information. In the Graham et al. (2007) survey, institutional investors were pointed out by the managers as the main category of shareholders causing short-term behavior. When interviewing managers, the compensation of fund managers was referred to as a cause for short-term focus. Since fund managers are compensated on the basis of how their funds have done relatively to peer managers, a "bandwagon" effect can easily be created, where all funds start to sell out (to protect their compensation) of stocks of firms that have missed an earnings target.

When ownership is expected to be more transient, the alternative potential owners' / the marginal owners' perspective should also affect management's decisions. This alternative / marginal owner perspective can also be enhanced by a high takeover activity.⁸ But who is then the *perceived* marginal investor? Graham et al. (2006) report that most CFOs believe that

⁸ See e.g. Demirag and Doi (2007), who analyze the differences between the short-term pressure in Japan and UK. They list e.g. stable shareholders and the lack of a takeover market as factors, which alleviate a long-run perspective for Japanese firms. The large institutional ownership of dispersed shareholdings, and the 'exit' behavior rather than 'voice' in the UK are in turn considered as factors that may influence short-termism. Bhojraj and Libby (2005) find an increasing tendency for short-term actions when managers are facing pressure from the capital market e.g. due to a pending stock issuance.

institutional investors set the stock price on the buy-side in the long run, that analysts affect short-term prices⁹, and that retail investors are not often an important price-setter.

We will study the relationship between short-term pressure and the presence of a large blockholder, using the percentage of equity held by the largest owner as an explanatory variable. In order to capture the presence of more permanent and therefore potentially more long-term oriented owners (and not transient blockholders), we choose a reasonably high cut-off point for the definition of a large owner. We define a large owner as one who owns at least 20% of the equity in the firm.¹⁰ Ownership stakes of that magnitude are too large to be fully turned over on a regular basis on the Nordic markets. We expect that the existence of a large, more long-term owner mitigates the pressure for short-term behavior either through efficient monitoring and controlling of the management (by reducing the agency problem between the owners and the management), or by mitigating the pressure for short-term actions coming from other, more short-term owners of the firm .

Hypothesis 1: The pressure for short-term behavior is smaller in firms where a large investor is present.

An interesting question is also which shareholder and stakeholder categories create short-term pressure for firms. For companies with a dispersed and more transient ownership structure, also the marginal shareholder (market) perspective becomes relevant. Based on the results of

⁹ Graham et al. (2006) also report that at least some CEOs consider analysts as young and inexperienced, therefore more short-term.

¹⁰ This contrasts to the typical definition for a blockholder position in studies on the U.S. market, where a cut-off point of 5% of equity has often been used. Twenty percent in turn is a frequently used threshold in studies of effects of corporate control on firm value, since it is usually considered as sufficient for effective control of a firm (La Porta et al., 1999).

Graham et al. (2006), where some respondents considered that analysts affect short-term prices, we formulate our second hypothesis as follows:

Hypothesis 2: Firms with a dispersed ownership structure are relatively more subject to pressure from market (analysts) and well-diversified “marginal” investor sources (such as institutional and foreign owners) as compared to closely held firms.

2.2 Corporate actions undertaken in response to short-term pressure

Next, we turn to corporate actions caused by a pressure for good results in the short-term. Several studies have reported evidence on firms undertaking actions to accommodate for short-term pressure. Such actions may include paying a larger cash dividend or repurchasing more shares, see e.g. Gaspar et al. (2005), i.e. lead to a change in the firm’s *dividend policy*. Such changes in turn reduce equity i.e. increases firm leverage (affects the firm’s *capital structure*). In addition, in order to show better short-term profitability, firms may require a faster *payback period* for investments, withhold or postpone the use of capital even at the cost of rejecting profitable ($NPV > 0$) *long-term investment* projects, cut down *R&D expenditure*¹¹, and follow a more aggressive employment policy (i.e. lead to higher *layoffs*). Moreover, firms may change their *financial reporting* practices (see e.g. Graham et al. (2006)). Finally, the results of e.g. Clay (2000) indicate that shortsighted investment behavior

¹¹ Earlier research indicates e.g. that frequent trading and short-term focus of institutional investors may encourage managers to sacrifice long-term investments such as R&D to meet current earnings targets (e.g. Bushee 1998). For recent survey and evidence, see also e.g. Osma (2008) and Osma and Young (2009). A willingness to bypass profitable investments for the meeting of earnings targets (earnings smoothing) was also found by Graham et al. (2006) in their survey of CFOs in the U.S. Greenwood and Schor (2009) find that firms subject to entering activists experience a significant reduction in capital expenditures.

can weaken *corporate governance* mechanisms of a firm and thereby lead to e.g. higher levels of managerial *compensation*.

We study all the actions discussed above. We present all respondent categories with a list of actions, and ask to what degree the firm has used them to adjust to the short-term pressure felt. We expect that firms subject to a higher pressure have to a higher degree undertaken actions to accommodate for the pressure. We also investigate the mitigating role of ownership concentration by studying whether companies with a large (potentially more long-term) owner are less willing to undertake value-destroying actions.

Hypothesis 3: Firms subject to a higher pressure are more likely to undertake actions to alleviate short-term pressure.

Hypothesis 4: Firms with a large shareholder are less willing to undertake actions that potentially destroy value (such as postponing investment or reducing R&D).

Finally, we asked questions concerning quarterly reports. Several investors have criticized the demand for frequent earnings guidance and reporting due to the pressure for short-termism that it may create. E.g., Warren Buffet has asked firms to stop providing quarterly earnings guidance and change to focus of the firm's reporting and disclosure policy to one that is more long-term. Several large companies have actually stopped giving quarterly earnings guidance.¹² We asked the CFO questions concerning the effects of quarterly reports, and report on those findings.

¹² The relationship between disclosure frequency and managerial myopia has been studied e.g. by Bhojraj and Libby (2003) in an experimental setting.

2 DATA

3.1 The survey data

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This paper is based on the results of a questionnaire directed to all Chairpersons of the Board, CEOs as well as CFOs of listed firms in the Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden).¹³ Separate questionnaires were sent to the three respondent groups. However, the questionnaires included some common questions especially on the short-term pressure felt. Our results utilize both the common questions, as well as some separate questions directed only to some respondent group. Appendix 1 of this paper lists the questions used in the survey, and to whom they were directed to.

The survey was conducted in two stages. In the first stage, the questionnaire was sent to the respondents in the Nordic firms listed on the exchanges operated by the OMX (now NASDAQ OMX), i.e. in 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 respondents 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 respondents (i.e. the Chairmen of the Board, the CEOs, and the CFOs) were hand-collected into a database. Ultimately, the questionnaire was sent to 780 firms (2271 respondents, a number smaller than 3 times 780 since 69 firms were lacking specific CFOs) in total.

¹³ Much work was put on the optimal design of the questionnaire. Prior to the actual survey, the questionnaire was also tested on subsets of executives / board members and like both in Sweden as well as in Finland.

The respondents were promised total anonymity i.e. the responses and the respondent's identity is only available to the researchers and the results are reported only as a group. The overall response rate was 20.4%, ranging from 10.3% for Norway to 29.3% for Sweden.¹⁴ The chairpersons were the most active respondents (158 responses), although the response rate was almost the same for all categories of respondents. Figure 1 and Table 1 reports the response rates per country and category of respondents.

3.2 Background data

The responses were matched with background information on firm financials and ownership concentration. The financial data is 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 the web 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, i.e. they are mainly from the year-end 2006 for Denmark, Finland, Iceland, and Sweden, and from 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 was 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

¹⁴ The response rate is typical to this kind of surveys. For example, Poterba and Summers (1995) had a response rate of 22.8 per cent in a study among 1000 US companies, and Graham et al. (2006) had a response rate of 10.4 per cent in their recent study.

responding firms and the whole population, separately for financial and non-financial firms.¹⁵

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 e.g. listed funds or investment companies, as well as insurance companies).

Table 2 shows that our firms are marginally larger than the population of firms to which the questionnaire was sent. This holds for the non-financial firms (285 in our sample) for all size related variables, but for the financials only in terms of Turnover. Our non-financial firms are also marginally less profitable (lower Return on Assets i.e. ROA), whereas our sample of financials (57 firms in our sample) are more profitable. The differences are however small and not statistically significant. We therefore conclude that our sample represents the total population quite well.

Ownership data for the firms has been collected primary from Amadeus, and secondary from annual reports from the web. The Amadeus data represents the ownership situation at the time point of the survey, while data from the annual reports is 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). We also tried to identify the owner type of the largest owner. Figure 2 shows the distribution of the owner types in our sample of firms.

¹⁵ 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 keep all respondents included. However, when relating responses to variables that may take very different values for financial vs. nonfinancial firms, we keep the subsamples separated.

Figure 2 shows that the largest owner types in our sample are private investors (or families), 37.7% of the respondents coming from such firms. The other larger groups are firms owned by mutual funds or investment companies (16.4%), other firms (12.1%), or “activist” owners (classified as private equity firms, activist hedge funds or like) (11.4%). The figure also shows that the distribution of respondents themselves and responding firms (the strictly different firms from which at least one response has been obtained) are highly similar, indicating that there is no clustering of the response frequency (in terms of whether we obtained 1, 2 or 3 responses from the same firm) across firm types.

Finally, Figure 3 shows the dispersion of the percent equity owned by the largest owner for 302 firms (for 58 firms we could not find the largest owner and/or her ownership). The graph approaches 100% because a few firms, while still listed when the questionnaire was mailed, ended in tender offer processes from acquirers during the response period. Figure 3 shows that ownership is quite concentrated in the Nordic firms, with 42 firms (13.9%) of firms having a majority owner, controlling more than 50% of the shares, and 179 (59.3%) having an owner controlling 20% or more of the equity. The high variation in ownership concentration in our sample gives a good starting point for the test of our hypothesis 1, i.e., whether the pressure for short-term results is related to the degree of ownership concentration.

3 EMPIRICAL RESULTS

4.1 Perceived pressure for results in the short-term

Our first hypothesis concerns the overall level of pressure for good results in the short-term, and its relationship to how concentrated the ownership in the firm is. We asked all respondents (Chairmen, CEOs as well as CFOs) to indicate the degree to which they have experienced that external expectations generate a conflict with the company's long-term goals. Respondents could choose between values on a Likert-type scale, ranging from 1 (very little) to 5 (very much). Panel A of Table 3 reports the results first for each respondent category, and then broken down to a country level. Panel B gives the results across all responses.

Table 3 shows that the average pressure felt is typically intermediate, between 2 and 3 which is comparable with the average of 2.838 in Liljeblom and Vaihekoski (2009). There are very few systematic country differences – Iceland is perhaps the only clear exception but the sample for Iceland is very small. Analyzing the responses across the respondents shows that the highest average pressure felt is by the CEO, followed by the CFO, and the CM (Chairman of the Board). This rank holds for all country averages except for Iceland.

In order to test our hypothesis 1, we estimate an ordered probit model, using the reported scores for pressure as the dependent variable. As explanatory variables we include either one of two measures for how dispersed the ownership of the firm is: Owner1, measuring the percentage of equity owned by the largest owner, and Owners5, the percentage of equity owned by the five largest owners (or fewer when five owners are not available). Since the pressure can be reported by the CEOs, the CFOs, or the CMs, we also include two dummy variables: a CEO-dummy and CFO-dummy. The coefficients for these will allow us to test for significant differences between the respondent categories, while controlling for other factors.

To control for external determinants, we include financial variables for size (measured by the natural logarithm of the Number of employees) and profitability, measured as the return on equity (ROE, defined as Net profit in percentage of Book equity). We expect that the pressure is larger in less profitable firms, whereas for size we do not have a clear ex ante expectation.

Finally, we also test for interaction effects between the ownership and financial variables on one hand, and the CEO and CFO dummies. Since in firms with higher degrees of corporate control, the board members (such as the CM) in themselves can already be large owners, it is relevant to study whether the pressure felt by the CEO (who is then the key person interacting with the owners) is reduced by the presence of large (and expectedly more long-term) main owner. This is tested by the inclusion of a multiplicative dummy CEO_Owner1, defined as the CEO-dummy times Owner1. The CFOs pressure can be expected to be more clearly restricted to financial decisions, and to be lower when the firm's profitability is higher. This is tested by an interaction variable CFO_ROE, defined as the CFO-dummy times ROE. Our main model is thus:

$$\begin{aligned} \text{Short-term pressure} = & \alpha_0 + \beta_1 (\text{CEO-dummy}) + \beta_2 (\text{CFO-dummy}) \\ & + \beta_3 (\text{Owner variable}) + \beta_4 (\text{Control variables}) \\ & + \beta_5 (\text{Interaction variables}) + \varepsilon, \end{aligned} \tag{1}$$

where short-term pressure is a response variable ranging from 1 to 5, CEO-dummy (CFO-dummy) is a binary variable that equals one if the response is given by a CEO (CFO), and zero otherwise. The owner variable measures the proportion of the equity of the firm owned by the largest owner (Owner1), or the five largest owners (Owner5). The control variables include $\ln(\text{Number of employees})$ and the ROE, defined as net profit in percentage of Book equity.

Finally, interaction variables are CEO_Owner1, defined as the CEO-dummy times Owner1, and CFO_ROE, defined as the CFO-dummy times ROE.

The results from the estimation of model (1) are reported in Table 4. Column A of Table 4 shows the results using Owner1 and the control variables (but not interaction terms), while Column B uses Owners5 instead of Owner1. The CEO-dummy is significant at least at the 5% level in these specifications, indicating that the CEO experiences a significantly higher pressure for short-term results than the CM, which is left without a dummy. The coefficient for the dummy for the CFO is also positive and significant, although not as high as that for the CEO. The ownership and profit variables obtain expected (negative) signs, but only ROE is significant in Column A. The significant negative sign for $\ln(\text{Employees})$ indicates that executives in larger firms feel less pressure for short-term actions.

In Column C, the interaction terms have been included. Both CEO_Owner1 as well as CEO_ROE are significant at the 1% level, supporting the hypothesis that the short-term pressure felt by the CEO is reduced by an increasing ownership share of the main owner. This is in line with our somewhat more generally specified hypothesis 1. The CFO in turn feels significantly less short-term pressure in firms with higher profits. Column D and E of Table 4 report results from bootstrapped standard errors, and without financial firms, respectively. The results are robust to these changes in the model specification.

The results from this section support the hypothesis of a negative relationship between ownership concentration and short-term pressure (our hypothesis 1) when it comes to the pressure felt by the CEO.

4.2 Sources of short-term pressure

Next, we asked all respondents to indicate how much do the short-term expectations created by the stakeholders compromise the company's long-term goals. Respondents were given a list of different shareholders and stakeholders, and again they could choose a value between 1 (very little) and 5 (very much), or 0 (not relevant) for each one. The results are reported in Table 5 for each stakeholder separately, first for the full sample and then separately for the CPs (Chairperson of the Board), CEOs, and CFOs.

The results give some support for the popular view, that financial analysts create short-term pressure. They obtain the highest score of 2.709 in the full sample, and also in each respondent category. This score is significantly higher at least at the 5 % level with respect to all scores for the other categories both in the full sample, and in the CM and CFO subsamples. In the other end, three categories: Politicians, Government (as owner), and Workers and their unions, obtain the lowest scores (all below 2 except for the average by CFOs for Workers and their unions). Likewise, these average scores are (in category comparisons) significantly (at the 1% level) below those of the others in all respondent categories, with the exception of the difference between the averages for Workers and their unions and Family owners in the CM category.

Next, we test whether there are significant differences between the pressure from analysts, institutional investors, and foreign owners, between firms with a higher or smaller degree of ownership concentration. Dividing the respondents into 2 groups based on the largest owner's ownership share (below or above 20%, creating group sizes of 166 and 223 for the full sample), we test for significant differences in the average pressure for these groups of

stakeholders. The pressure from the three stakeholder/ shareholder categories (analysts, institutional and foreign owners) is in each case higher in firms with a more dispersed ownership, but the difference is significant at the 5% level only for Foreign investors (means of 2.64 and 2.33, a t-value of 2.03).

Finally, in order to test our hypothesis 2 further, we estimated model (1) in the specification as it appears in Table 4, Panel E, using the response scores for the analyst, and institutional as well as foreign owners, as dependent variables in ordered probit models, one at a time. As a basis for comparison, we also report results from using the responses for media, and other domestic owners as dependent variables. These results are reported in Table 6. We obtain only partial support for our hypothesis 2. The interaction coefficient for the CEO is significant (with a t-value of 2.64) only in column A, indicating that the CEO feels a significantly reduced pressure from analysts when there is a large owner present in the firm. Interestingly, for all three owner categories in Table 6 (institutional, foreign, and other domestic), a high profitability significantly reduces such pressure, whereas it is not significant for the other two stakeholder categories (analysts and media). In summary, the results from this section give mixed support for our hypothesis 2, that the perceived pressure from marginal investors / the capital market is higher in firms with more dispersed ownership.

4.3 Actions taken to alleviate the short-term pressure

Next, we test the relationship between the degree of short-term pressure, and the willingness to adjust the company's performance in response to such pressure. We are above all interested in whether firms are (as indicated by the survey results of Graham et al. 2006) willing to sacrifice economic value in order to meet such pressure for short-term results. The

respondents were presented with a list of actions, and asked to what degree their company had undertaken them to accommodate for short-term pressure. Respondents could for each action give a value between 1 (very little) and 5 (very much), or 0 (not relevant). Results are reported in Table 7.

Panel A of Table 7 shows the results for the full sample. The highest score is given for the action Financial reporting (3.159), followed by Corporate Governance (2.986). These are actions which do not have to be value destroying. However, we also see that actions like Long-term investment (2.887), R&D expenditure (2.430), and Required rate / Payback period (2.623) obtain reasonably high scores. These actions are more problematic, since reducing or postponing investment, or using a higher rate of return than motivated by project risk, or a shorter payback period, are likely to destroy economic value.

CFOs were given one alternative that was not available for others, namely “Special press releases” (not reported in Table 7 in Panels A to D). The number of respondents here is 139, out of which 16.5 per cent considered the alternative as irrelevant for the company. The mean and standard deviation of the responses are 2.784 and 1.133, respectively.

Panels B through D of Table 7 show the results for each respondent category (CM, CEO and CFO). The results are rather similar in all three respondent categories, with Financial Reporting and Corporate Governance dominating in all categories.

In order to test our hypotheses 3, we investigate the pairwise correlations between answers to the overall question of short-term pressure, and these answers on actions. The correlations are all reasonably high, the lowest one being 0.16 (Corporate Governance) and the highest 0.39

(Hiring / layoff decisions). In ordered probit regressions, using the general scores for the short-term pressure as the explanatory variable, and these action answers as the explanatory variables each in turn, the slope coefficient is always significant at the 1% level (z-values ranging from 2.54 for Compensation design, to 5.28 for the Required rate / payback period, and 1.92 for the alternative Special press releases only offered to CFOs). These results are reported in Panel E of Table 7. They give strong support for our hypothesis 3, suggesting that companies feeling a stronger short-term pressure also are more prone to adjust their actions.

We also expect (as specified in our hypothesis 4) that the willingness to accommodate for short-termism is related to factors creating this pressure, such as the ownership structure (the time horizon of the owners). We use again as a proxy for this, the degree of corporate control. Dividing the respondents into two groups based on the largest owner's ownership share (below or above 20%, creating group sizes of 166 and 223 for the full sample), we test for significant differences in the average pressure for these groups of stakeholders. We find that the scores are in general higher (more actions undertaken) for firms with a more dispersed ownership structure, but the difference between the averages is mostly not significant. However, it is significant for two actions: Long-term investments (a difference of 0.32, with a t-value of 2.45) and R&D expenditure (a difference of 0.46, with a t-value of 3.17). These results are in line with our hypothesis 4, indicating that owners with a longer commitment may be influential in reducing short-term pressure where reducing it is most crucial, i.e. when it comes to avoiding actions that might destroy value.

4.4 Views on quarterly reports

Lastly, the CFOs (and only them) were asked about their opinion on the quarterly reporting. They were faced with seven different statements and asked to reply on a scale from one (strongly disagree) to five (strongly agree). Some of the statements offered were neutral or positive, while some emphasized short-term pressure and negative effects such as obscuring the company's goals. Table 8 lists the statements offered, and shows the results.

Table 8 shows that the highest score was obtained by the neutral / positive statement saying that quarterly reports gives the company a tool to communicate with the capital market (4.170, also with the lowest standard deviation). However, the second highest score is obtained by the statement that quarterly reports create short-term pressure (3.770, also with a low standard deviation). The scores on these two are significantly higher than those for the other statements. These results indicate that CFOs experience shared feelings for quarterly reports, seeing the benefits of them but also acknowledging an enhanced risk for a short-term focus brought by them.

4 CONCLUSIONS

This paper builds on earlier results from several studies, indicating that short-run pressure may influence firms to undertake actions, which sacrifice economic value, in order to meet short-run benchmarks. We focus on the question of the sources of such a pressure. The results by Graham et al. (2006) indicate that firms perceive institutions and analysts and as the 'marginal' investors, by far overwhelming the others. Such stakeholders / shareholders have been pointed out in many studies as participants with a potentially short-term focus, whereas e.g. family firms have been considered as having a more long-term focus. It is therefore of interest to

study whether differences in ownership patterns influence the pressure for short-termism faced by the firm, and their willingness to undertake value-destroying actions.

The Nordic markets offer an excellent opportunity to study the impacts of ownership concentration, since there is much more variation in it as compared to e.g. the US, where firms typically are widely held. Using recent survey data for 464 executives in listed firms in Denmark, Finland, Iceland, Norway and Sweden, accompanied with information on firm financials and ownership structures (above all the largest owner's percentage of equity in the firm), we study the levels, determinants, and consequences of perceived short-term pressure.

Our results are largely consistent with e.g. Graham et al. (2006), who find substantial willingness among firms to sacrifice economic value due to short-term pressure. Among the executives, the CEO feels the strongest pressure, followed by the CFO and the Chairman of the Board. However, the level of the short-term pressure felt by the CEO is significantly negatively related to the degree of ownership concentration, i.e. reduced if the firm has a large controlling shareholder. Firms subject to a higher pressure are more willing to undertake actions to accommodate for the pressure, including actions that may destroy economic value such as adjusting the level of long-term investments or R&D expenditure. However, this tendency for the value destroying actions is significantly lower in firms with a high degree of corporate control (where the largest owner owns more than 20% of the equity).

Our results contribute both to the literature on short-term pressure, but also on the corporate governance literature concerning the effects of corporate control. The results indicate that the need to put in place corporate governance mechanisms to reduce managerial myopia are of

especial interest in widely held firms, subject to a higher pressure for short-term results from financial analysts. Such mechanisms are e.g. compensation systems with a longer focus.

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Appendix 1. The questions from the survey included in this study, and their respondent categories. Questions 1-3 were directed to all respondents (last item on question 3 was only included for CFOs questionnaire) and questions 4 only to the CFOs.

1. Short-term external expectations:

To what extent do You feel that short-term external expectations conflict with Company's long-term goals?

very little		---		very much	
1	2	3	4	5	

2. To what extent, if any, do short-term expectations created by the following stakeholders compromise the Company's long-term goals?

	very little --- very much					not relevant 0
	1	2	3	4	5	
Media						
Analysts						
Politicians						
Government (as owner)						
Family owners						
Domestic institutional owners						
Other domestic owners						
Foreign owners						
Workers and their unions						

3. Have You accommodated Your actions in response to short-term expectations?

	very little --- very much					not relevant 0
	1	2	3	4	5	
Compensation design						
Dividend policy						
Capital structure						
Long-term investments						
Hiring / layoff decisions						
R&D expenditure						
Financial reporting						
Corporate Governance						
Required rate / Payback period						
Special press releases						

4. State whether You agree with the following statements. The quarterly reports:

	Strongly disagree --- Strongly agree				
	1	2	3	4	5
Create more short-term pressure					
Makes the Company focus on cash flow					
Gives the Company a tool to communication with the capital market					
Makes the Company consider timeliness of acquisitions, divestments, and investments					
Requires too much effort compared to benefits realized					
Obscures the Company's operational goals					
Makes the Company emphasize incoming orders					
Other (please specify)					

FIGURE 1.

Distribution of responses across countries

The Figure shows the breakdown of the total number of responses across different countries in a sample of 464 responses from companies' chairpersons, CEOs, and CFOs.

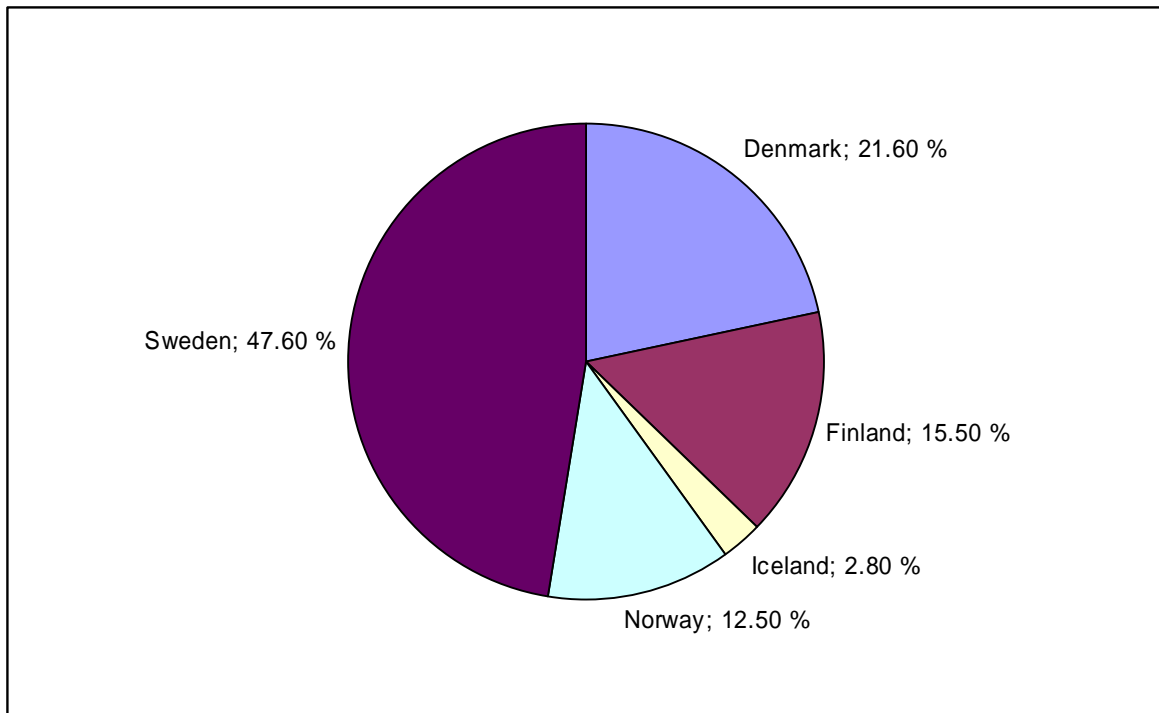


FIGURE 2.

Distribution of responses across main owner types

Figure shows the breakdown of the total number of responses (bar graphs) across different main (largest) firm owner types, in a sample of 464 responses from companies' chairpersons, CEOs, and CFOs. The figure also shows from how many different firms (352 in total, plus 4 unidentified respondents), distinguished by their main owner's type, these responses come from (line graph). Ownership data has been obtained from Amadeus and annual reports.

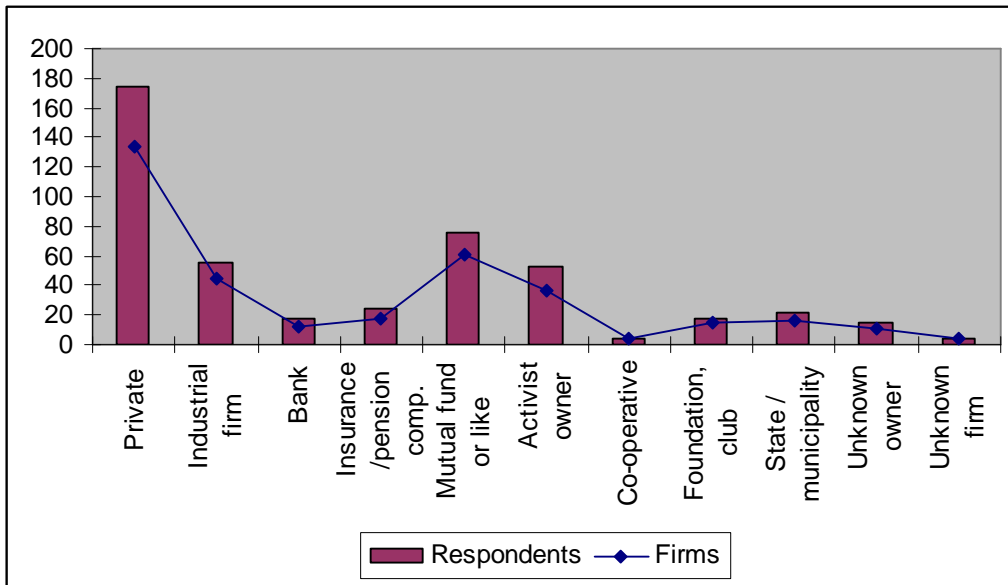


FIGURE 3.

Ownership by the largest owner

Figure shows the dispersion of the ownership fraction (percent of equity owned by the largest owner) in our sample of firms sorted from the smallest ownership to the largest. Ownership data, concerning the percent of equity owned by the largest owner, has been obtained from Amadeus and annual reports for 302 companies out of the total of 360 companies from which at least one questionnaire was returned.

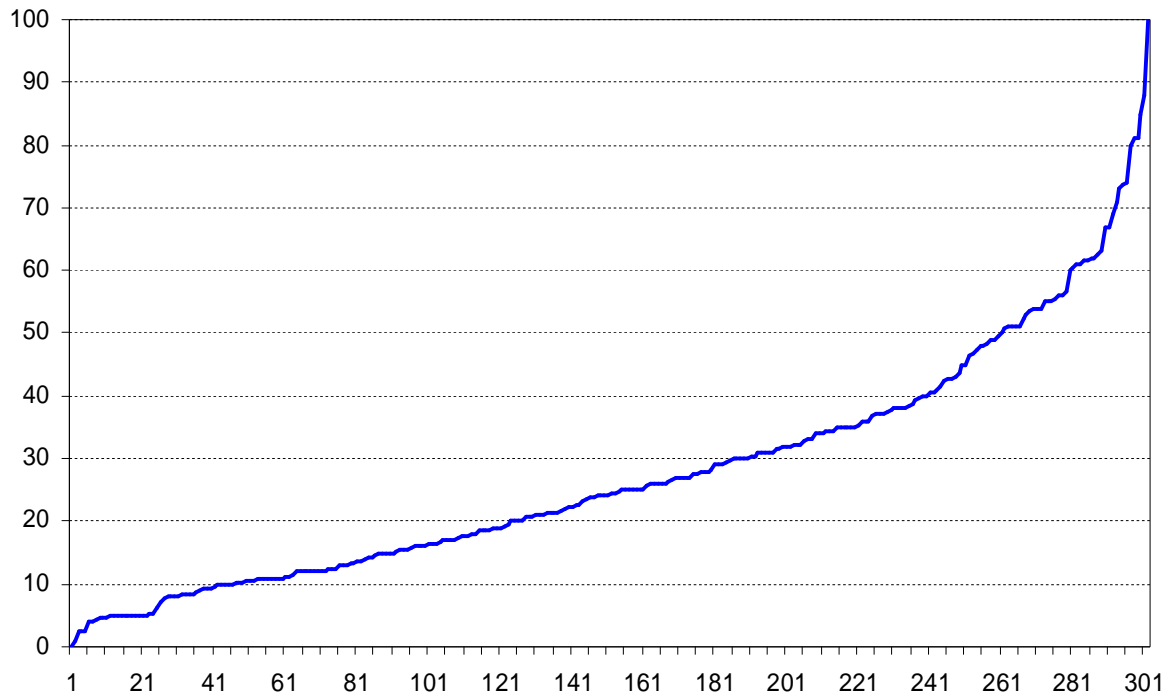


TABLE 1.**Descriptive statistics**

Descriptive statistics are reported for the responses received from a survey directed to the Chairpersons (CP), Chief Executive Officers (CEOs), and Chief Financial Officers (CFOs) of all companies listed at the Nordic Stock Exchanges at the end of 2007 (all but Norway) and in May 2008 (Norway). A total of 780 companies were included and 2271 surveys sent.

	CP	CEO	CFO	Sum
Panel A: Number of responses				
Denmark	36	32	32	100
Finland	18	30	24	72
Iceland	4	3	6	13
Norway	20	14	24	58
Sweden	80	70	71	221
TOTAL	158	149	157	464
Panel B: Response rates (%)				
Denmark	19.1 %	17.0 %	25.0 %	19.8 %
Finland	13.8 %	23.1 %	18.8 %	18.6 %
Iceland	18.2 %	13.6 %	33.3 %	21.0 %
Norway	10.6 %	7.4 %	12.9 %	10.3 %
Sweden	31.7 %	27.8 %	28.3 %	29.3 %
ALL	20.3 %	19.1 %	22.1 %	20.4 %

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

Descriptive statistics are reported for the listed firms in Denmark, Finland, Iceland, Norway and Sweden (the “Population”, a total of 780 firms), which were targeted in the survey (whose Chairperson of the Board, CEOs and CFOs obtained the questionnaire). We also report statistics for responding firms (the “Sample”, a total of 352 firms), i.e. firms from which at least one respondent returned a filled-in questionnaire. 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 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 1000 euros), No. of employees, Total assets (in 1000 euros), Return on total assets (ROA, defined as Net Profit to Total Assets) and Solidity (defined as Equity to Total Assets). Financial data is for the last available reporting year prior to the date for sending out the questionnaire (typically 2007 for Norway, and 2006 for the others), and has been collected from Amadeus, Datastream, and annual reports for the companies.

		Non-financials		Financials	
		Sample	Population	Sample	Population
Firms		285	615	67	165
Turnover, 1000 EUR	Mean	1 280 296	1 058 814	736 835	543 775
	Median	106 970	101 826	94 865	53 981
	St.dev.	4 675 704	3 939 259	1 946 139	2 039 941
	Obs	280	604	57	142
No of employees	Mean	4 539	4 405	1 494	1 520
	Median	482	396	190	135
	St.dev.	16 653	22 460	4 403	4 679
	Obs	272	569	59	139
Total assets, 1000 EUR	Mean	1 285 241	1 049 915	12 054 523	12 379 270
	Median	107 249	102 364	690 387	570 934
	St.dev.	4 562 082	3 696 905	48 051 720	53 042 764
	Obs	285	615	67	165
ROA, per cent	Mean	4.13	4.22	6.86	5.95
	Median	7.34	6.40	3.88	2.40
	St.dev.	17.61	16.28	9.18	9.64
	Obs	283	613	67	162
Solidity, per cent	Mean	47.72	49.07		
	Median	45.43	45.58		
	St.dev.	19.35	20.11		
	Obs	282	610		

TABLE 3.**Pressure on compromising long-term goals in favor of short-term goals**

Respondents were asked to indicate the degree to which they have experienced that external expectations generate a conflict with the company's long-term goals. Answers were given on a 1 (very little) to 5 (very much) scale. Panels from A to C report the results for the Chairperson, CEOs, and CFOs, respectively, and Panel D for all respondents combined. Results are reported for each country separately and across all countries. N and N_{empty} are total number of respondents with non-empty (empty) reply, respectively.

	N	Mean	Median	Std. dev.	N_{Empty}
Panel A: Chairperson					
Denmark	32	2.38	2.00	1.07	4
Finland	17	2.18	2.00	1.07	1
Iceland	4	3.25	3.00	0.50	0
Norway	19	2.42	2.00	1.30	1
Sweden	78	2.62	3.00	1.13	2
All	141	2.52	2.00	1.12	8
Panel B: CEO					
Denmark	31	2.90	3.00	1.01	1
Finland	27	3.33	4.00	1.11	3
Iceland	3	2.33	2.00	1.53	0
Norway	14	3.43	4.00	0.94	0
Sweden	66	2.67	3.00	1.18	4
All	141	2.91	3.00	1.14	8
Panel C: CFO					
Denmark	29	2.59	3.00	1.18	3
Finland	24	2.67	3.00	1.09	0
Iceland	6	3.17	3.00	0.75	0
Norway	23	2.89	3.00	1.22	1
Sweden	68	2.72	3.00	0.99	3
All	150	2.73	3.00	1.07	7
Panel D: All combined					
Denmark	92	2.62	3.00	1.10	8
Finland	68	2.81	3.00	1.18	4
Iceland	13	3.00	3.00	0.91	0
Norway	56	2.87	3.00	1.23	2
Sweden	212	2.67	3.00	1.10	9
All	439	2.72	3.00	1.12	23

TABLE 4.**Short-term pressure and firm ownership**

The results are reported for the model (1) using a multivariate ordered probit-model, where the response to the short-term pressure question (value ranging from 1 to 5) is the dependent variable. The explanatory variables are CEO-dummy (CFO-dummy), a binary variable taking the value of 1 if the response is given by a CEO (CFO) and zero otherwise; Owner 1 (Owners5), the percentage of equity owned by the largest (5 largest) owners; ln(number of employees), the natural logarithm of the number of employees; ROE, defined as net profit in percentage of book equity; CEO_Owner 1, an interaction variable defined as CEO-dummy times Owner1; and CFO_ROE, an interaction variable defined as CFO-dummy times ROE. Columns A to C report results from various model specifications using the sample of all firms for which the data items have been available, and z-values (within parenthesis) based on regular standard errors. Column D reports z-values based on bootstrapped standard errors (50 iterations), while Column E reports results from a model where financial firms have been excluded from the estimation. Models A, B, C, and E are estimated with robust standard errors. * denotes significance at the 10% level.

Model	Column A	Column B	Column C	Column D	Column E
	Base-case using Owner1	Using Owners5	With interactions	Bootstrapped standard errors	No financials
CEO-dummy	0.2726* 1.89	0.3291* 2.48	0.6945* 3.00	0.6945* 3.36	0.6448* 2.43
CFO-dummy	0.2335* 1.71	0.2098* 1.68	0.3359* 2.31	0.3359* 2.02	0.3709* 2.35
Owner1	-0.0033 -1.05		0.0032 0.80	0.0032 0.69	0.0014 0.32
Owners5		-0.0002 -0.11			
ln(Employees)	-0.0441* -1.80	-0.0635* -2.85	-0.0418* -1.71	-0.0418* -1.68	-0.0585* -2.01
ROE	-0.0042* -2.38	-0.0002 -0.26	-0.0023 -1.11	-0.0023 -1.07	-0.0015 -0.72
CEO_Owner1			-0.0152* -2.31	-0.0152* -2.41	-0.0135* -1.78
CFO_ROE			-0.0083* -2.14	-0.0083* -2.16	-0.0084* -2.13
Obs (N)	345	408	345	345	277
Wald Chi²	20.79	17.61	28.62	26.52	28.29
Pseudo R²	0.0214	0.0124	0.0308	0.0308	0.0358

TABLE 5.**Sources of short-term pressure**

Respondents were asked to indicate how much do the short-term expectations created by the following stakeholders compromise the company's long-term goals. Respondents were given a list of different shareholders and stakeholders, and again they could choose a value between 1 (very little) and 5 (very much), or 0 (not relevant). Panel A reports the results for the full sample, and Panels B-C for Chairpersons, CEOs, and CFOs. *N* indicates the number of respondents. Not relevant (%) column reports the number of responses with an answer indicating that the question is not relevant for the company. Reported means, medians and standard deviations have been calculated from 1–5 responses.

	N	Mean	Median	Std. dev.	Not relevant (%)
Panel A: Full sample					
Media	441	2.503	2	1.165	11.3 %
Analysts	444	2.798	3	1.152	10.1 %
Politicians	438	1.903	2	1.003	26.7 %
Government (as owner)	433	1.870	1	1.050	61.0 %
Family owners	435	2.472	2	1.300	38.2 %
Domestic institutional owners	436	2.489	2	1.063	14.2 %
Other domestic owners	430	2.438	2	1.068	14.0 %
Foreign owners	435	2.471	2	1.140	20.9 %
Workers and their unions	441	1.936	2	0.958	22.0 %
Panel B: Chairpersons					
Media	151	2.457	2	1.172	8.6 %
Analysts	152	2.784	3	1.153	8.6 %
Politicians	151	1.934	2	1.014	19.9 %
Government (as owner)	147	1.865	1	1.077	49.7 %
Family owners	148	2.214	2	1.169	33.8 %
Domestic institutional owners	149	2.471	2	1.088	8.7 %
Other domestic owners	148	2.326	2	1.037	10.8 %
Foreign owners	149	2.402	2	1.140	18.1 %
Workers and their unions	152	1.984	2	0.937	18.4 %

TABLE 5. Continued

	N	Mean	Median	Std. dev.	Not relevant (%)
Panel C: CEOs					
Media	143	2.592	3	1.232	12.6 %
Analysts	143	2.709	3	1.203	11.2 %
Politicians	143	1.916	2	1.018	33.6 %
Government (as owner)	143	1.939	2	1.069	65.7 %
Family owners	143	2.674	3	1.297	39.9 %
Domestic institutional owners	143	2.508	2	1.084	17.5 %
Other domestic owners	142	2.613	3	1.098	16.2 %
Foreign owners	143	2.648	3	1.217	26.6 %
Workers and their unions	141	1.748	1	0.947	27.0 %
Panel D: CFOs					
Media	147	2.465	2	1.093	12.9 %
Analysts	149	2.898	3	1.101	10.7 %
Politicians	144	1.857	2	0.985	27.1 %
Government (as owner)	143	1.804	1	1.003	67.8 %
Family owners	144	2.565	2	1.410	41.0 %
Domestic institutional owners	144	2.492	2	1.021	16.7 %
Other domestic owners	140	2.387	2	1.059	15.0 %
Foreign owners	143	2.385	2	1.057	18.2 %
Workers and their unions	148	2.051	2	0.972	20.9 %

TABLE 6.**Pressure from different stakeholders and firm ownership**

The results are reported for model (1) using a multivariate ordered probit-model, where the response to the short-term pressure question (value ranging from 1 to 5) from specific stakeholders (analysts, media, institutional owners, foreign owners, and other domestic owners) are now used as dependent variables, one at a time. The explanatory variables are CEO-dummy (CFO-dummy), a binary variable taking the value of one if the response is given by a CEO (CFO) and zero otherwise; Owner1, the percentage of equity owned by the largest owner; ln(number of employees), the natural logarithm of the number of employees; ROE, defined as net profit in percentage of book equity; CEO_Owner 1, an interaction variable defined as CEO-dummy times Owner1; and CFO_ROE, an interaction variable defined as CFO-dummy times ROE. The models are estimated with robust standard errors. T-values are reported below parameter estimates in parenthesis. Parameters significant at standard five (ten) percent level are marked with ** (*).

Model	Column A	Column B	Column C	Column D	Column E
	Pressure from analysts	Pressure from media	Pressure from institutional owners	Pressure from foreign owners	Pressure from other domestic owners
CEO-dummy	0.3435 (1.38)	0.2702 (1.01)	0.2772 (1.05)	0.5738** (1.99)	0.6607** (2.73)
CFO-dummy	0.1156 (0.80)	-0.0560 (-0.40)	0.0955 (0.61)	0.0289 (0.18)	0.2306 (1.42)
Owner1	0.0039 (0.98)	0.0040 (1.03)	0.0027 (0.60)	0.0009 (0.23)	0.0061 (1.44)
ln(Employees)	-0.0204 (-0.80)	-0.0346 (-1.28)	-0.0353 (-1.25)	-0.0134 (-0.47)	-0.0634** (-2.09)
ROE	-0.0019 (-0.94)	-0.0028 (-1.48)	-0.0061** (-3.01)	-0.0034* (-1.83)	-0.0057** (-3.18)
CEO_Owner1	-0.0186** (-2.64)	-0.0101 (-1.31)	-0.0070 (-0.86)	-0.0109 (-1.32)	-0.0114 (-1.63)
CFO_ROE	-0.0054* (-1.81)	-0.0015 (-0.68)	0.0038 (1.20)	0.0014 (0.54)	-0.0015 (-0.35)
Obs (N)	310	306	291	269	287
Wald Chi²	23.16	20.73	15.81	12.00	30.69
Pseudo R²	0.0199	0.0118	0.0226	0.0143	0.0429

TABLE 7.**Actions to accommodate short-term pressure**

Respondents were asked which actions, if any, their company had taken to accommodate short-term pressure. Respondents were given a list of actions and they could respond 1 (very little) through to 5 (very much) as well as 0 (not relevant). Panel A reports the results for the full sample, and Panels B to D for Chairpersons, CEOs, and CFOs. N indicates the number of respondents, with the response rate in parenthesis. Not relevant (%) column reports the number of responses with an answer indicating that the question is not relevant for the company. Reported mean, median and standard deviation are calculated from valid responses between one and five. Finally, Panel E reports the results of ordered probit models (robust standard errors) using the action response scores as dependent variables, and the response scores to the general question on short-term pressure as the explanatory variable in each model. * denotes significance at the 10% level.

	N	Mean	Median	Std. dev.	Not relevant (%)
Panel A: Full sample					
Compensation design	428	2.739	3	1.122	25.7 %
Dividend policy	430	2.736	3	1.211	21.9 %
Capital structure	430	2.797	3	1.149	17.4 %
Long-term investments	430	2.887	3	1.181	17.4 %
Hiring / layoff decisions	429	2.500	2	1.181	24.9 %
R&D expenditure	427	2.430	2	1.182	28.6%
Financial reporting	431	3.159	3	1.121	14.2 %
Corporate Governance	430	2.986	3	1.118	16.3 %
Required rate / Payback period	424	2.623	3	1.132	30.0 %
Panel B: Chairpersons					
Compensation design	148	2.689	3	1.081	28.4 %
Dividend policy	147	2.700	3	1.282	25.2 %
Capital structure	147	2.838	3	1.217	20.4 %
Long-term investments	147	2.809	3	1.283	21.8 %
Hiring / layoff decisions	147	2.324	2	1.204	30.6 %
R&D expenditure	147	2.450	2	1.201	32.0 %
Financial reporting	149	3.098	3	1.174	18.1 %
Corporate Governance	147	3.000	3	1.085	18.4 %
Required rate / Payback period	146	2.606	3	1.114	32.2 %

Table 7. Continued

	N	Mean	Median	Std. dev.	Not relevant (%)
Panel C: CEOs					
Compensation design	144	2.893	3	1.111	28.5 %
Dividend policy	142	2.768	3	1.185	21.1 %
Capital structure	143	2.737	3	1.158	17.5 %
Long-term investments	143	2.959	3	1.126	14.0 %
Hiring / layoff decisions	142	2.741	3	1.097	23.9 %
R&D expenditure	142	2.533	2	1.153	27.5 %
Financial reporting	142	3.081	3	1.135	13.4 %
Corporate Governance	142	3.033	3	1.173	15.5 %
Required rate / Payback period	143	2.792	3	1.123	32.9 %
Panel D: CFOs					
Compensation design	136	2.642	3	1.167	19.9 %
Dividend policy	141	2.739	3	1.175	19.2%
Capital structure	140	2.817	3	1.077	14.3 %
Long-term investments	140	2.889	3	1.135	16.4 %
Hiring / layoff decisions	140	2.429	2	1.213	20.0 %
R&D expenditure	138	2.304	2	1.192	26.1 %
Financial reporting	140	3.296	4	1.047	10.7 %
Corporate Governance	141	2.925	3	1.101	14.9 %
Required rate / Payback period	135	2.480	3	1.150	24.4 %
Panel E: Results from ordered probit models: Action score = $\alpha + \beta$ (Short-term pressure)					
Action	Coeff. for pressure	z-score	Obs	Pseudo R²	
Compensation design	0.1361*	2.54	310	0.0071	
Dividend policy	0.1349*	2.54	327	0.0065	
Capital structure	0.1831*	3.47	347	0.0118	
Long-term investments	0.2116*	4.05	347	0.0157	
Hiring / layoff decisions	0.2280*	4.28	316	0.0199	
R&D expenditure	0.2095*	3.76	298	0.0162	
Financial reporting	0.2214*	4.20	363	0.0185	
Corporate Governance	0.1799*	3.56	353	0.0126	
Required rate / Payback period	0.2975*	5.28	291	0.0332	
<i>Special press releases (CFO only)</i>	<i>0.1749*</i>	<i>1.92</i>	<i>115</i>	<i>0.0104</i>	

TABLE 8.**Quarterly reports**

The CFOs were asked to indicate their opinions on seven different statements regarding quarterly reports. Answers were given on a 1 (strongly disagree) to 5 (strongly agree) scale. *N* indicates the number of respondents. Reported mean, median and standard deviation are calculated from valid responses between one and five.

The quarterly reports ...	N	Mean	Median	Std. dev.
Create more short-term pressure	100	3.770	4	0.886
Makes the company focus on cash flow	99	3.040	3	1.059
Gives the company a tool to communication with the capital market	100	4.170	4	0.853
Makes the company consider timeliness of acquisitions, divestments, and investments	100	2.910	3	1.190
Requires too much effort compared to benefits realized	100	2.950	3	1.019
Obscures the company's operational goals	100	2.730	3	0.983
Makes the company emphasize incoming orders	86	2.640	3	1.084