Why Employees Choose to be Represented on Corporate Boards

Tom Berglund
Hanken School of Economics
Hanken Centre for Corporate Governance
berglund@hanken.fi

Martin Holmén
University of Gothenburg
Centre for Finance, Economics Department
martin.holmen@cff.gu.se

This Version: January 15th , 2015

Abstract

The fact that Swedish law gives the right for employees to choose whether they want be represented on corporate boards or not, and that this option hasn't been used in a considerable part of Swedish firms allows us to analyze why employees choose to be represented on some corporate boards while they abstain from using that option in other firms. We use a simple framework in which we assume that employee representation reflects a rational choice on behalf of employees eligible to sit on the board. Our results are broadly in line with our predictions. We find no indications that employee board representation impact firm performance positively or negatively. The main driver of employee board representation appears to be the number of eligible employees. Furthermore, we find that the likelihood of employees board representation decreases with , i) firm risk, and ii) slow growth, and iii) internatlization We conclude that employee representation can at least to some extent be seen as the outcome of rational choice by employees eligible for board seats.

JEL classification: G34, J53
Keywords: Employee representation, board structure.

1. Introduction

Board Level Employee Representation (BLER) in Sweden is granted by law. However, in a majority of the listed firms the employees choose not to be represented on the board. The main question that we try to tackle is why employees choose to be represented on boards in some firms while they abstain from using the option to be represented in other firms. If BLER produces superior returns to shareholders the challenge would be to find out why some firms stick with what seems to be an inefficient solution. Our results reveal that there is no statistically significant relation between BLER and firm performance. On the other hand, if BLER is associated with management being willing to sacrifice shareholder value for the benefit of employees, the challenge would be to find out why employees abstain from using the option to be represented on the board. Our results indicate that such benefits are unlikely.

We contribute to the literature by developing and testing a simple framework based on rational choice by eligible employees to explain the presence or absence of BLER in individual firms. We start out from the simple observation that BLER requires that there must be at least one individual who will perceive the expected benefits from being on the board to exceed the expected costs. Since employee representatives are not entitled to extra compensation for sitting on the board (except for meeting fees), the direct economic incentives for serving on the board are weak. Perceived expected benefits of serving on the board thus have to be more subtle.

BLER is a relatively old phenomenon that has been tried in different forms in numerous countries. In Germany it was introduced in the strategically important coal and steel industries already in 1951, and its reach was expanded to other large German firms

1

in the Codetermination Act of 1976. BLER is not restricted to Germany, however. As documented by Conchon (2011, p. 11) in "17 out of the 27 European Member States plus Norway, employees are granted the right to be represented on the board of directors or the supervisory board with decision making powers". Thus the right to BLER is more common than is usually believed.[1]

From the beginning BLER has largely been a political issue where the left, represented mostly by social democrats have been in favor, seeing it as a way to protect workers' rights, while conservatives have been against, seeing it as something that will limit the freedom of choice for entrepreneurs. Given this set-up there are naturally conflicting views on whether BLER is value increasing or value destroying. Those that support BLER see it as a way to protect, and thus encourage, investment in firm specific human capital among employees.[2] They claim that the impact is favorable, in particular on firm performance, and mainly through that channel also on firm valuation. BLER is also claimed to have a positive impact on performance since BLER will make the board better aware of prevailing sentiments within the workforce and thus facilitate tailoring of

---

1 See Jackson (2005) for an overview of board level employee representation in OECD countries, and Conchon (2011) for a more recent overview specifically of BLER in Europe.
[2] See e.g. Freeman and Reed (1983), Blair (1995) and Becht et al., (2003), Osterloh and Frey (2006).

the firm's policy in a way that will eliminate friction between top management and the workers. Furthermore, BLER is said to improve the motivation among workers since they feel that they have a voice in how the company is being managed.[3]

Those who are against BLER, on the other hand, argue that it will contribute to more cumbersome decision making, and thus harm performance[4], and above all, reduce the market's valuation of the firm, since investors perceive that the management will be more willing to sacrifice shareholder value for the benefit of employees. In particular, BLER will make required painful restructuring more difficult since employee representatives on the board will consider it to be their duty to resist measures that will require lay-offs. Critical voices have also argued that employee representation could make the top managers and key owners more likely to collude on important issues and to settle them in informal meetings well before the decisions are formally taken by the board (Roe, 2003; p. 75). If so, the governance function in the firm would obviously suffer, and thus justify a lower market valuation by the bulk of small investors in the stock market.

The empirical research that has been conducted so far fails to give convincing support for either of the above views. Some studies point to a favorable impact of BLER

---

[3] See e.g. Levine & Tyson (1990) or Fauver and Fuerst. (2006).
[4] This is forcefully argued in Jensen and Meckling (1979), who point out that we don't observe voluntarily chosen BLER.

while other studies find the opposite, and some find no relationship at all. Conchon (2011) surveys the empirical studies of the relationship between BLER and company performance in Germany and finds that of 10 studies that look at the BLER impact on profitability or return of assets 3 find a positive relationship, 3 find a negative relationship, and 4 find no relationship at all.[5]

The impact of BLER has also been studied in a number of other countries. Ginglinger, Megginson, and Waxin (2011) find weak support for a positive impact of BLER for French firms in 1998-2008, on the condition that the representation is connected to employee share ownership. Bøhren and Strøm (2010), on the other hand, find a significantly negative impact of employee directors on firm valuation as well as on firm performance in Norway in data covering 1989-2002.

As for studies on Swedish data Levinson (2001, p.273), in a highly sympathetic study towards BLER, concludes: "The present findings of the study suggest that employee representatives play a rather peripheral role in board activities, particularly when it comes to bringing up problems for discussion and initiating solutions." Similarily Gregoric, Rapp, Sinani and Wolff (2013) in an advanced econometric study on data

_____

[5] Conchon (2011), Table 2, p 16, 17.

covering Denmark, Norway as well as Sweden over the period 2001-2009 find no relationship between BLER and neither firm performance nor the firm's market valuation.

By Swedish law since 1973, if the company has employed at least 25 (1000) employees for last fiscal year, employees have the right to claim 2 (3) employee representatives on the board. In addition, though, the law states that employee board representatives can never constitute a majority of the board. The decision to exercise the right to board representation is taken by the local union, which is bound by collective agreement with the company. Employee representatives on the board have the full rights and responsibilities of normal board directors. Their votes bear the same weight (one member one vote) as the board members elected by the shareholders. In most firms employee representatives do not receive a regular compensation for being board members although they may be entitled to compensation for board meetings that they attend.

Based on previous research we conjecture that firms with BLER exhibit neither better nor worse performance than firms with no BLER in the Swedish case. We use a sample of 226 Swedish firms 2001-2007 and OLS and treatment effect models to document that there is no statistically significant relation between BLER and firm performance. If BLER is unrelated to firm performance there is not a compelling economic argument, neither in favour nor against BLER, based on economic rents to be shared by shareholders and employees from choosing one rather than the other option.

Based on the simplifying assumption of independent individual utility maximization by employees we develop two hypotheses about the presence or absence of BLER in individual firms. Since BLER requires that some employees are willing to serve

on the board the first hypothesis is that the likelihood of BLER increases in a non-linear way with the number of employees. The second hypothesis is based on individual employees' expected personal costs and benefits from sitting on the board. The benefits are probably related to career concerns and prestige. The expected costs will be higher in firms where board work is more demanding, which is likely in riskier and less rapidly growing firms. Furthermore, board work should be more demanding in firms with more international operations. Thus, the second hypothesis is that the likelihood of BLER should decrease with firm risk, slow growth, and internationalization. We find empirical support for both hypotheses.

Next we will outline our framework and hypotheses in more detail. Then we go on to describe the data and define the variables used in the empirical analysis. Section 4 first analyses the relation between BLER and firm performance in the sample that we use. Our results reveal that no significant relation between BLER and firm performance seem to exist. Section 4 then goes on to estimate to what extent our simple framework based on rational choice by eligible employees helps in explaining the presence or absence of BLER in individual firms. Section 5 puts the results in perspective and concludes.

2. Framework and hypotheses

In the Swedish employee representation law the firm size has been taken into account in a relatively crude way. For firms with below 25 employees no employee representation is required even if employees would insist. In the interval 25-1000 the employees have the right to two representatives, and for firms with more than 1000 employees the number of board seats that can be reserved by employees is three. This crude way of taking the size

of the firm into account is a simple way to acknowledge that the interest to serve on the

company board is limited. To see this, let us start from the simplifying assumption that

each employee is equally likely to be interested in a board-membership. Let's denote this

probability with P. Assume that all n individuals working as employees for the firm

independently decide whether they are interested in a board membership or not. Then the

likelihood that there will be two persons who are willing to serve on the board will be:

$$1 - F(1;n,P) \qquad\qquad (1)$$

Where F is the cumulative distribution function for the binomial probability distribution.

Expression (1) stems from the fact that there will be at least two persons among n

employees who are willing to serve on the board if it is not the case that there are either

one or no willing persons, the cases which are covered by: $F(1;n,P)$.

For at least three persons among n employees to be willing to serve on the board

the expression becomes:

$$1 - F(2;n,P) \qquad\qquad (2)$$

i.e. the complement to the case that there are just two, one, or no willing persons to serve

on the board.

With a probability of 0.1 % for a randomly chosen employee to be willing to

serve on the board the likelihood that there will be at least two or three employees willing

to serve on the board is depicted as function of the board size in Figure 1.
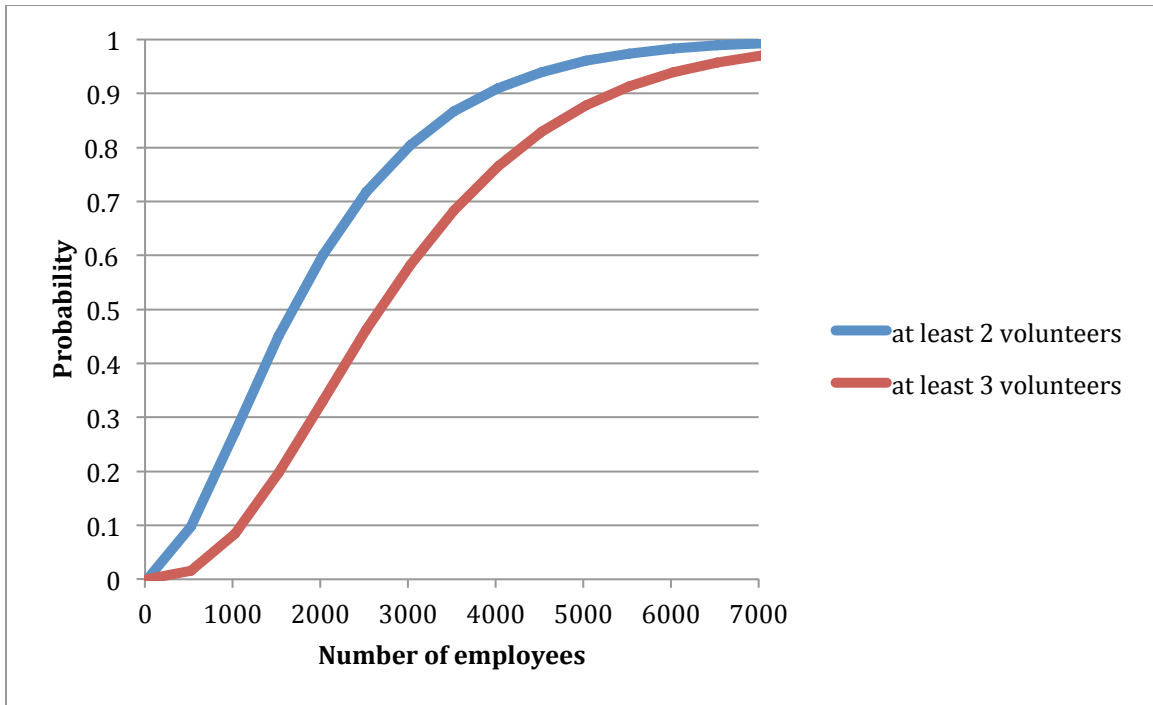
Figure 1: The relationship between the probability of finding at least two or at least three employees willing to serve on the company board, and the size of the company as measured by number of employees. The likelihood that a randomly picked employee is willing to serve on the board is assumed to be 0.1 %.

As can be seen from the figure the relationship is highly non-linear with a convergence towards one as firm size grows. Obviously these graphs are based on very crude simplifications, perhaps the most important one being that employees decide on whether they are willing to serve on the board independently of each other. However, the non-linearity in the relationship between firm size and likelihood of finding willing persons to serve on the board is likely to carry over to a more realistic setting. By comparing the two graphs for firms with less than 1000 employees it is also apparent that restricting the number of board seats to two can be seen as a realistic assessment of the likelihood of being able to find interested persons for the job. These arguments are the basis for our first hypothesis.

Hypothesis 1: There exists a positive and non-linear relation between BLER and the number of employees in the firm.

Systematic factors that will make individuals more or less willing to serve on the board should cause an upward or a downward shift in the above curves respectively. Since direct compensation is not relevant for employee representatives, and any impact on expected future compensation, in the form of more attractive job offerings is difficult to assess, we focus on factors that are likely to reduce the attractiveness of board membership from an employee's point of view.

First, additional prestige in the eyes of fellow employees for being in a position to take part of important decisions is likely to constitute an advantage to some. However, the position may also create some envy among colleagues which could tip the scale in the other direction. Most importantly, though, if the firm is doing poorly part of the blame for the firm's misfortunes may be directed towards the employee representatives on the board even if they personally had little influence on what caused the trouble. Thus board membership will be less attractive if the firm is considered more risky, i.e. it is more likely that the firm will perform poorly for one reason or another.

Second, board meetings may constitute a forum where an ambitious individual may expect to able to further her or his career by exhibiting deep knowledge and good judgement in issues that are central to the business development of the firm. Since career opportunities will depend on whether the firm is doing well and expanding, or merely

struggling to survive, this motive should be substantially weaker in a slowly growing firm than in an expanding firm.

Third, board work will be more demanding and therefore less attractive in a more international firm. The firm will be more exposed to competition which increases the likelihood of poor firm performance. Furthermore, board meetings will be held in English. Finally, according to the Swedish rules the employee board representatives must come from the Swedish part of the firm. Employees at foreign subsidiaries are not eligible making the pool of potential candidates smaller given a certain firm size.

These arguments are the basis for our second hypothesis.

Hypothesis 2: The likelihood of BLER decreases in firms with i) i) high risk, ii) slow growth, and iii) more international operations,

3. Data

3.1 Sample

We use a sample of 226 listed non-financial Swedish firms. Our sample period is 2001 to 2007 and the number of firm years is 1627. On average, we have 156 firms per year. Since the average number of firms on the Stockholm Stock Exchange during this time period is 265, our sample represents roughly 60 percent of Swedish listed firms. The market value of the firms in the sample also represents roughly 60 percent of the Stockholm Stock Exchange market capitalization. Our sample represents more than 75 percent of the market capitalization of non-financial firms.

Accounting data, stock market data, and industry classification are collected from Thomson's Datastream. Information about board characteristics, e.g. employee representation, is collected from Sundin and Sundqvist (2001-2002) and Fristedt and Sundqvist et al.'s (2001-2007) "Boards and Auditors". Ownership data are collected from Sundin and Sundqvist (2001-2002) and Fristedt et al. (2003-2007) "Owners and Power in Sweden´s listed Companies". Annual reports are used to collect data on the number of employees in the firm.

3.2 Variables

Our analysis focuses on whether employees have exercised the option to be represented on the board or not. We define an indicator variable BLER that is equal to one if employees are represented on the board, and zero otherwise. We only observe changes in BLER in 17 firm years, i.e. roughly 1% of the sample years. Thus, if the employees are represented on the board they tend to stay, and vice versa.[6] The 17 changes in BLER are split roughly evenly between introductions and terminations of employee board

_____

[6] We tried to find information about the changes in BLER in the annual reports. We were only able to find two comments. One was just a statement that the employees had nominated three candidates. The other comment was from a holding company and stated that employees had chosen to be represented in the main portfolio firm instead of at the board of the holding company.

11

representation. Since there is very little variation in BLER, in most tests we average it and all other variables over the sample years. BLER and the other dummy variables are set to one (zero) if the average is above (below) 0.5. With these definitions, 106 firms (47 percent) are classified as having employee board representation.

Some firms have only one employee board representative and some firms with more than 1000 employees have only two representatives, though the employees are entitled to three. These observations appear to be consistent with our conjecture that a crucial determinant of BLER is finding employees who are interested in sitting on the board.

For the tests of the relation between employee board representation and firm value and performance we focus on three variables. First, Tobin's q is used as a proxy for the market's valuation of the firm. Tobin's q is defined as the sum of the market value of equity and the book value of dent divided by the book value of total assets. Second, Return On Assets (ROA) is used as a proxy for firm performance. ROA1 is defined as the firm's Earnings Before Interest, Taxes, and Depreciation (EBITD) divided by total assets. ROA2 is defined as the firm's net income divided by total assets.[7]

---

[7] Anderson and Reeb (2003) use the same definitions of ROA.

For the firm valuation and performance analysis we define a number of independent control variables. Firm size (FIRMSIZE) is defined as the value of total assets in thousand SEK. The firm's capital structure is estimated as long-term debt divided by the book value of equity (DEBT_EQUITY). We include the total investments divided by total sales (INV_SALES) as proxy for the firm's growth opportunities and the stock market volatility (STOCKVOL) of the firm's share as a proxy for firm risk. Our volatility measure STOVKVOL is the standard deviation of the daily closing stock price changes multiplied by the square root of 252 where 252 is the average number of trading days during a year. In order to control for firm maturity we include firm age (FIRMAGE).

In the analysis of the likelihood of BLER we first focus on the number of employees. The variable EMPLOYEES is the number of employees in the firm as reported in the annual report. Our first hypothesis is that employee board representation increases with EMPLOYEES and that this relation is non-linear.

Our second hypothesis is that employee board representation decreases with firm risk, slow growth, and international operations. We define four variables to capture these characteristics.

The two first variables are proxies for risk. The first risk variable is the volatility of the firm's stock (STOCKVOL). The second risk variable is the volatility in the number of firm employees. EMPVOL is defined as the standard deviation of the yearly percentage changes in the total number of employees in the firm.[8] If the firm has to lay off people part of the employees' blame might be directed towards the employee representatives on the board.

Firm growth is measured by the growth of total sales (SALES_GR). More rapid growth will increase the potential benefits of board work for an employee and therefore increase the likelihood of BLER. The fourth variable is a dummy variable for foreign board members (FOREIGN_BOARD). Firms with foreign board members tend to be more exposed to international competition making board work more demanding.[9]

For the analysis of the likelihood of employee board representation we define two additional control variables. The first is BOARDSIZE defined as the number of board members excluding any employee representatives. Since the employees have the right to

---

[8] It is of course expectations about the negative movements in the number of employees that should be of most importance. We argue that the volatility in the number of employees better captures the ex-ante expectations about potential layoffs, while an actual decline in the number of employees is an ex-post outcome.
[9] Causality may also be reversed, i.e. foreign board professionals may shun firms with active local employee representation

either two or three board members, the shareholders can reduce their influence on the board by increasing the number of other board-members (Thomsen et al., 2012). The second is the largest shareholder's vote rights in the firm (VOTE_LARGEST). Employees should find it easier to negotiate with a dominating shareholder than with dispersed shareholders (see Högfeldt, 2005). We therefore expect a positive correlation between employee board representation and VOTE_LARGEST.

Finally, in order to control for industry effects we construct nine industry dummies based on the first digit of the firms' main industry code.

3.3 Descriptive Statistics

Table 1 reports descriptive statistics for the sample. The median firm i) has a Tobin's q of 1.248, ii) generates ROA1 (ROA2) equal to 0.119 (0.043), iii) has total assets worth SEK 810 million, iv) finances 32.6 of the assets by debt, v) invests an amount equal to 3 percent of total sales, vi) is eighteen years old, vii) has a stock price (employee) volatility of 42.3 (12.8) percent viii) has 515 employees and zero foreign board members, ix) has a sales growth of 1.2 percent, x) has 6 board members (excluding employee representative), and xi) has a dominating shareholder with 28.8 percent of the voting rights.

In table 2 we report pair-wise correlation coefficients for the variables. Employee board representations is positively (negatively) and strongly correlated with number of employees, board size, and firm age (stock market volatility). Firm size is highly correlated with number of employees, board size, and firm age. However, some of these correlations should be interpreted with caution. Firm size is for example negatively

correlated with stock market volatility. Larger firms also have more debt resulting in a (spurious) negative correlation between leverage and stock market volatility.

4. Results

4.1. Valuation and Performance

When analyzing the impact of employee board representation on firm value and performance we first use OLS regressions. Second, in order to control for the fact that employees endogenously decide whether to be represented on the board or not, we run treatment effect models.[10] The treatment effect model considers the effect of an endogenously chosen binary treatment--the employee board representation dummy--on another endogenous continuous variable, conditional on two sets of independent variables. The treatment effect model consists of two steps. The second step is a regression of the continuous dependent variable, y, on the BLER dummy and a set of control variables.

---

[10]For example, Villalonga and Amit (2006) use treatment effect models when investigating the relation between family ownership and firm performance.

$$y_i = \alpha + \beta_1 BLER_i + \beta_2 \ln(FIRMSIZE_i) + \beta_3 DEBT\_EQUITY_i + \beta_4 INV\_SALES_i$$

$$+ \beta_5 \ln(FIRMAGE_i) + \beta_6 STOCKVOL_i + \sum_{j=1}^{9} \gamma_j Industry_j + \varepsilon_i$$

In the first step, the treatment $BLER_i$ is modeled as the outcome of an unobserved latent variable, $BLER_i*$, and y_i represents i) TOBINS_Q, ii) ROA1, and iii) ROA2, respectively. $BLER_i*$ is estimated as a function of the number of board members excluding any employee board representatives. Since the employees have the right to either two or three board members, the shareholders can reduce their influence on the board by increasing the number of other board-members. Board-size is also the variable that has the strongest correlation with BLER in our sample (see table 2). All models are estimated with Maximum Likelihood and reported with heteroskedasticity corrected z-values in parenthesis (White, 1980).[11]

The results are reported in table 3. In model 1 and 2 we report the results for Tobin's q estimated with OLS and a treatment effect model, respectively. BLER is insignificant in both models. In the OLS estimation DEBT_EQUITY is negative and

---

[11] Estimating the Treatment Effect models with the two-step Heckman procedure generate similar but somewhat statistically weaker results.

significant. However, in the treatment effect model DEBT_EQUITY is insignificant. All the other variables are insignificant in model 1 and 2.

In model 3 and 4 (5 and 6) we report the results for ROA1 (ROA2). Again, BLER is insignificant in all estimated models. Thus, in line with the inconclusive results for Germany reported by Conchon (2011) and the insignificant results for Scandinavia reported in Gregoric et al. (2013) we do not find a significant relation between BLER and firm performance and value.

The only significant variable is firm size which is positively significant in all models. During our sample period several smaller firms in information technology, biotech, and other high-tech industries were struggling in the aftermath of the dot-com bubble and this is not captured completely by the industry dummies. Thus, the positive relation between performance and firm size is mainly driven by poorly performing small firms, not well performing large firms.

4.2. Likelihood of Board Level Employee Representation

We now turn to the analysis of the presence or absence of BLER in individual firms. Our first hypothesis is that the likelihood of BLER should increase with the number of employees in the firm. Furthermore, this relation should be non-linear. We therefore include the number of employees expressed in thousands (EMPLOYEES1000) and its squared term in a probit regression with BLER as dependent variable. We control for BOARDSIZE, VOTE_LARGEST, and the natural logarithm of FIRM_AGE. Thus, we estimate the flowing model

$$\Pr{(BLER = 1)}_i = \alpha + \beta_1 EMPLOYEES1000 + \beta_2 EMPLOYEES1000\_SQUARED_i +$$

$$\beta_4 \ln(\text{BOARDSIZE}_i) + \beta_5 VOTE\_LARGEST_i + \beta_6\ln{(FIRM\_AGE)}_i +$$

$$\sum_{j=1}^{9} \gamma_j Industry_j + \varepsilon_i$$

The results are reported in table 4. In the first model we only include the number of employees expressed in thousands (EMPLOYEES1000) and it is positively significant at the one percent level. In model 2 we include the squared term of EMPLOYEES1000. EMPLOYEES1000 is still positively significant and the squared term is negatively significant at the one percent level. Thus, the relation between number of employees and BLER is indeed positive and non-linear.

The significant relation between BLER and number of employees might of course only be a size effect. In model 3 we replace number of employees with the natural logarithm of the value of the firm's total asset (FIRMSIZE). The likelihood of BLER increases significantly with FIRMSIZE. However, when both number of employees and firm size is included in model 4, only number of employees and its squared term are significant, while firm size is insignificant. It appears as if it is the number of employees that increases the likelihood of BLER, not firm size measured by the value of total assets. Consistent with the argument that shareholders increase board size in order to limit the employees' influence in cases where employees exercise their option to be on the board, employee board representation is indeed positively and significantly related to board size. The likelihood of BLER also increases with firm age. A large controlling shareholder (VOTE_LARGEST) does not appear to be related to the likelihood of BLER.

We now turn to our second hypothesis that the likelihood of BLER should decrease with firm characteristics that make it less attractive for employees to sit on the board, and vice versa. In model 5 we include a proxy for firm risk, i.e. the firm's stock market volatility (STOCKVOL) and it is negatively significant. Our second proxy for increased risk, the volatility in the number of employees (EMPVOL) is included in model 6. It is negatively significant at the 10 percent level. The firm age result can also be interpreted in terms of firm risk and hypothesis 2. Older firms are likely to operate in more stable business environments, other things equal.

Our next variable capturing the cost-benefit analysis of the employee is sales growth (SALES_GR). The costs (benefits) of sitting on the board for employee should decrease (increase) in a firm that is growing more rapidly, ceteris paribus. However, SALES_GR is insignificant in model 7. In model 8 we include our proxy for foreign operations, a dummy variable equal to one if the firm has at least one foreign board member (FOREIGN_BOARD). The coefficient on FOREIGN_BOARD is negatively significant while the number of employee results remain roughly unchanged.

In model 9 we include all our four proxies for the cost-benefit analysis. All four variables are then significant (SALES_GR at the ten percent level). Thus, it appears as if stock market volatility, employee volatility, sales growth, and foreign board members capture different aspects of the cost and benefits for an employee to sit on the board. Furthermore, EMPLOYEE1000 and its squared term are more or less unaffected by adding these variables to the model indicating that the number of employee effect is separate from the cost-benefit effects.

4.3. Robustness tests and additional results

In general we think it is unlikely that BLER would affect firm behavior and policies in a significant way. However, in unreported tests we have investigated some potential effects of BLER. First, we tested whether average salaries are higher in firms with BLER. We did not find any indications of that. In fact, if anything, average salaries are lower in firms with BLER. Second, we have run panel data fixed effect regressions to investigate whether the sensitivity of the number of employees is more or less sensitive to firm performance if employees are on the board. We find no differences between firms with employee board representation and firms without employee board representation.

5. Conclusion and discussion

This paper first tested for a relation between BLER and firm performance. The results revealed no statistically significant relation. We therefore developed and tested two hypotheses about the presence or absence of BLER in individual firms. The first hypothesis was that the likelihood of BLER is positively and non-linearly related to the number of employees in the firm and was strongly supported in the Swedish data. The second hypothesis was based on the argument that the likelihood of BLER should decrease with firm characteristics that decrease employees' benefits to sit on the board and/ or make board work more demanding. The results indicate that the likelihood of BLER indeed decreases with firm risk, slow growth, and internationalization. We conclude that employee board representation can at least to some extent be seen as the outcome of rational choice by employees eligible for board seats.

We think the paper contributes to the BLER literature along at least two dimensions. First, we document that in an environment where employees have the right to be represented on the board this option might not be exercised. Since there should be some benefits from board representation, the tendency not to exercise the board representation option suggests that there are significant costs for the individual employee to sit on the board.

Second, our results suggest no significant relation between BLER and firm performance. Our interpretation of this result is that well run firms take employee interests properly into account independently of whether the employees are represented on the board or not. At the same time having employee representatives on the board is unlikely to be a significant burden for the firm. In particular this holds for firms that operate in a stable environment.

Whether the benefits of legally mandated BLER rights for employees, as in Sweden, are high enough to justify the additional administrative costs that BLER may cause in cases where the owners would prefer not to have employee representatives on the board, is an open question. The fact that the option to BLER is always present in larger firms may, as such, reduce the likelihood of costly unexpected conflicts between management and employees. This externality may well be high enough to offset the costs from a few cases where BLER is a suboptimal solution, that cannot be avoided due to excessive contracting costs.

References:

Anderson, R. and D. Reeb. (2003) Founding-family ownership and firm performance: Evidence from the S&P 500. *Journal of Finance* 58, 1301-1327.

Becht, M., P. Bolton, and A. Roell. (2003). Corporate governance and control. In G. Constantinides, M. Harris, and R. Stulz (Eds.), *Handbook of the Economics of Finance,* Volume 1A, Chapter 1, pp. 1-109. Amsterdam: North-Holland.

Blair, M. (1995). Ownership and Control. Rethinking Corporate Governance for the Twenty-First Century. Washington D.C.: The Brookings Institution.

Böhren, Ö. and Ö. Ström. 2010. Governance and politics: Regulating independence and diversity in the board room *Journal of Business Finance and Accounting* 37, 1281-1308.

Conchon, A. (2011). Board-level employee representation rights in Europe: Facts and trends. Etui report 121.

Fauver, L. and M. Fuerst. (2006). Does good corporate governance include employee representation? Evidence from German corporate boards. *Journal of Financial Economics* 82, 673–710.

Freeman, R. and D. Reed. (1983). Stockholders and stakeholders: A new perspective on corporate governance. *California Management Review* 25, 88-106.

Fristedt, D., and S_I. Sundqvist. (2003-2007). *Directors and Auditors in Sweden's Largest Companies*. Dagens Nyheter, Stockholm.

Fristedt, D., A. Sundin, and S_I. Sundqvist. (2003). *Owners and Power in Sweden's Listed Companies*, Dagens Nyheter, Stockholm.

Fristedt, D., and S_I. Sundqvist. (2004-2007). *Owners and Power in Sweden's Listed Companies*, Dagens Nyheter, Stockholm.

Ginglinger, E., W. Megginson, and T. Waxin. (2011). Employee ownership, board representation, and corporate financial policies. *Journal of Corporate Finance* 17, 868-887.

Gregoric, A., M. Rapp, E. Sinani and M. Wolff (2013). Sharing voice with the employees: Implications for firm behavior and performance during the recent crisis. Working Paper Copenhagen Business School.

Högfeldt, P. (2005). The History and Politics of Corporate Ownership in Sweden. in: R. Morck (ed), *A History of Corporate Governance around the World: Family Business Groups to Professional Managers*. NBER, University of Chicago Press.

Jackson, G. (2005). Employee Representation in the Board Compared: A Fuzzy Sets Analysis of Corporate Governance, Unionism and Political Institutions. *Industrielle Beziehungen*, 252-279.

Jensen, M. and Meckling, W.H. (1979). Rights and production functions: An application to labor-managed firms and codetermination. *Journal of Business* 52, 469–506.

Levine D. and L.Tyson (1990). "Participation, Productivity, and the Firm's Environment." In Alan S. Blinder (ed.). *Paying for Productivity: A Look at the Evidence.* Washington, D.C.: The Brookings Institution, 183-241.

Levinson, K. (2001). Employee representatives on company boards in Sweden, *Industrial Relations Journal* 32:3, 264-274.

Osterloh, M. and B. Frey (2006). Shareholders should welcome knowledgeworkers as directors. *Journal of Management and Governance* 10, 325–345.

Roe, M. (2003). Political Determinants of Corporate Governance: Political Context, Corporate Impact, Oxford University Press.

Sundin, A. and S_I. Sundqvist (2001-2002), *Directors and auditors in Sweden's largest companies*. Dagens Nyheter, Stockholm.

Sundin, A. and S_I. Sundqvist. (2001-2002). *Owners and Power in Sweden's Listed Companies*, Dagens Nyheter, Stockholm.

Thomsen, S., C. Rose, and D. Kronborg. (2012). The Incentive Effect of Mandatory Employee Board Representation- the Nordic Evidence. Working Paper

Villalonga B. and R. Amit (2006). How do family ownership, control and management affect firm value? *Journal of Financial Economics* 80, 385-417.

White, H. (1980). A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity. *Econometrica* 48, 817-38

Table 1: Descriptive Statistics
In this table we report summarize summary statistics for our sample. The sample consists of 226 Swedish firms 2001-2007. The number of firm years is 1627. Accounting data, stock market data, and industry classification are collected from Thomson's Datastream. Information about board characteristics, e.g. employee representation, is collected from Sundqvist et al.'s (2001-2007) "Boards and Auditors". Ownership data are collected from Sundqvist et al.'s (2001-2007) "Owners and Power in Sweden´s Listed Companies". The main variable of interest, employee representation (BLER), is equal to one if there are employee board representation, and zero otherwise. Since there are very few changes in BLER (17 firm years, i.e. roughly 1%) we average all variables over the sample years. BLER and the other dummy variables are set to one (zero) if the average is above (below) 0.5. The 17 changes in BLER are split roughly evenly between introductions and terminations of employee board representation. 106 firms are classified as having employee board representation. TOBINSQ is defined as the sum of the firm's market value of equity and book value of total debt divided by the book value of total assets. ROA1 is defined as the firm's Earnings Before Interest, Taxes, and Depreciation (EBITD) divided by total assets. ROA2 is defined as the firm's Net Income divided by total assets. FIRMSIZE is equal to the value of total assets in thousand SEK. . DEBT_EQUITY is equal to total debt divided by book value of equity. INV_SALES is total investments divided by total sales STOCKVOL is the yearly stock market volatility and it is estimated as the standard deviation of the daily stock price changes multiplied by the square root of 252. EMPLOYEES is the number of employees in the firm. FOREIGN_BOARD is equal to one if there are at least one foreign board member, and zero otherwise. EMPVOL is the yearly volatility of the number of employees in the firm and it is estimated as the standard deviation of the yearly percentage changes in the total number of employees in the firm. SALES_GR is the firm's growth in total sales. BOARDSIZE is equal to the total number of board members minus the number of employee board members.
VOTE_LARGEST is equal to the fraction of the firm's voting rights controlled by the largest shareholder.

	Mean	Min	Median	Max	Stdev
BLER	0.486	0	0	1	0.501
TOBINSQ	1.664	0.104	1.248	6.930	1.346
ROA1 (EBITD)	0.109	-0.165	0.119	0.520	0.136
ROA2 (Net Income)	0.023	-0.291	0.043	0.429	0.129
FIRMSIZE (M SEK)	8686	246	810	250000	27700
DEBT_EQUITY	0.513	0	0.326	3.451	0.583
INV_SALES	0.069	0	0.030	1.408	0.169
FIRMAGE	32	2	18	107	28
STOCKVOL	0.496	0.119	0.423	1.660	0.245
EMPLOYEES	5090	15	515	213137	18007
FOREIGN_BOARD	0.469	0	0	1	0.500
EMPVOL	0.217	0.002	0.128	0.844	0.231
SALES_GR	0.062	-0.240	0.012	4.996	0.372
BOARDSIZE	6.422	3	6	10	1.222
VOTE_LARGEST	0.326	0.051	0.288	0.924	0.198

Table 2: Correlations

In this table we report correlation coefficients between the variables we use in the empirical analysis. The sample consists of 226 Swedish firms 2001-2007. The number of firm years is 1627. Accounting data, stock market data, and industry classification are collected from Thomson's Datastream. Information about board characteristics, e.g. employee representation, is collected from Sundqvist et al.'s (2001-2007) "Boards and Auditors". Ownership data are collected from Sundqvist et al.'s (2001-2007) "Owners and Power in Sweden´s Listed Companies". The main variable of interest, employee representation (BLER), is equal to one if there are employee board representation, and zero otherwise. Since there are very few changes in BLER (17 firm years, i.e. roughly 1%) we average all variables over the sample years. BLER and the other dummy variables are set to one (zero) if the average is above (below) 0.5. The 43 changes are split roughly evenly between introductions and terminations of employee board representation. 106 firms are classified as having employee board representation. EMPLOYEES is the number of employees in the firm. BOARDSIZE is equal to the total number of board members minus the number of employee board members. FIRMSIZE is equal to the value of total assets in thousand SEK. FOREIGN_BOARD is equal to one if there are at least one foreign board member, and zero otherwise. STOVKVOL is the yearly stock market volatility and it is estimated as the standard deviation of the daily stock price changes multiplied by the square root of 252. VOTE_LARGEST is equal to the fraction of the firm's voting rights controlled by the largest shareholder. FAMILY is equal to one if the largest shareholder is a family, an individual, or a group of individuals, and zero otherwise. TOBINSQ is defined as the sum of the firm's market value of equity and book value of total debt divided by the book value of total assets. ROA1 is defined as the firm's Earnings Before Interest, Taxes, and Depreciation (EBITD) divided by total assets. SALES_GR is the firm's growth in total sales. DEBT_EQUITY is equal to total debt divided by book value of equity. INV_SALES is total investments divided by total sales. FIRMAGE is the age of the firm in years. SAL_PER_EMP is the firm's total salary and benefit expenses in million SEK divided by number of employees. EMPVOL is the yearly volatility of the number of employees in the firm and it is estimated as the standard deviation of the yearly percentage changes in the total number of employees in the firm.

	BLER	EMPLOYEES	BOARD SIZE	FIRMSIZE	FOREIGN BOARD	STOCK VOL	VOTE_ LARGEST	TOBINS Q	ROA1
EMPLOYEES	0.2599								
BOARDSIZE	0.4253	0.3708							
LN(FIRMSIZE)	0.2404	0.5928	0.4050						
FOREIGN_BOARD	-0.0992	0.1996	0.1709	0.2279					
STOCKVOL	-0.4156	-0.1807	-0.4652	-0.1967	-0.0372				
VOTE_LARGEST	0.0199	0.0304	0.0459	0.0858	-0.1310	-0.0848			
TOBINSQ	-0.2714	-0.1019	-0.1346	-0.1479	0.0638	0.1290	-0.1981		
ROA1 (EBITD)	0.1600	0.2414	0.0780	0.0780	-0.0654	-0.3078	0.2205	0.0834	
SALES_GR	-0.0088	-0.0358	-0.0342	-0.0281	0.0642	0.0599	-0.0091	0.2000	-0.0655
DEBT_EQUITY	0.2397	0.1558	0.0743	0.1061	0.0830	-0.1910	0.0403	-0.2537	0.0122
INV_SALES	-0.0696	-0.0244	0.0976	0.0161	0.0560	0.1372	0.0563	-0.0445	0.1475
FIRMAGE	0.4023	0.2632	0.3847	0.3517	-0.0592	-0.4052	0.1726	-0.2091	0.2081
EMPVOL	-0.2811	-0.1451	-0.2319	-0.0780	0.0493	0.1944	-0.0197	-0.0481	-0.0496

	SALES_GR	DEBT_EQUITY	INV_SALES	FIRMAGE
DEBT_EQUITY	0.0979			
INV_SALES	0.0249	0.038		
FIRMAGE	-0.0756	0.1071	-0.0593	
EMPVOL	0.0893	-0.0715	0.0773	-0.1332

Table 3: OLS and Treatment Regressions with firm performance measures as dependent variables
In this table we report OLS regressions and the second step of Treatment effect regressions where the endogenous indicator variable BLER is estimated in the first step using BOARDSIZE as instrument. The models are estimated with the Heckman two-step procedure. The sample consists of 226 Swedish firms 2001-2007. 106 firms have employee board representation. Accounting data, stock market data, and industry classification are collected from Thomson's Datastream. Information about board characteristics, e.g. employee representation, is collected from Sundqvist et al.'s (2001-2007) "Boards and Auditors". Ownership data are collected from Sundqvist et al.'s (2001-2007) "Owners and Power in Sweden´s listed Companies". In M1 and M2 the dependent variable (TOBINSQ) is the sum of the firm's market value of equity and book value of total debt divided by the book value of total assets. In M3 and M4 the dependent variable (ROA1) is defined as the firm's Earnings Before Interest, Taxes, and Depreciation (EBITD) divided by total assets. In M5 and M6 the dependent variable (ROA1) is defined as the firm's Net Income divided by total assets. EMPREP is equal to one if there are employee board representation in more than 50% of the sample years, and zero otherwise. FIRMSIZE is equal to the value of total assets in thousand SEK. DEBT_EQUITY is equal to total debt divided by book value of equity. INV_SALES is total investments divided by total sales. FIRMAGE is the age of the firm in years. STOCKVOL is the yearly stock market volatility and it is estimated as the standard deviation of the daily stock price changes multiplied by the square root of 252. LN denotes the natural logarithm. Coefficients are reported with z-values in parentheses. z-values are corrected for heteroskedasticity. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	M1 OLS TOBINSQ	M2 Treatment TOBINSQ	M3 OLS ROA1	M4 Treatment ROA1	M5 OLS ROA2	M6 Treatment ROA2
BLER	-0.3021	0.1849	0.0030	-0.0227	-0.0015	-0.0519
	(-1.51)	(0.29)	(0.18)	(-0.42)	(-0.10)	(-1.01)
LN(FIRMSIZE)	-0.1042	-0.1373	0.0170	0.0189	0.0176	0.0213
	(-1.54)	(-1.64)*	(2.98)***	(2.61)***	(3.32)***	(3.11)***
DEBT_EQUITY	-0.5499	0.2963	-0.0237	-0.0254	-0.0254	-0.0288
	(-2.20)**	(0.45)	(-1.42)	(-1.36)	(-1.52)	(-1.62)
INV_SALES	0.3048	0.2963	0.1147	0.1156	0.0640	0.0656
	(0.48)	(0.45)	(1.76)*	(1.51)	(1.24)	(0.90)
LN(FIRMAGE)	-0.0286	-0.0299	0.0006	0.0009	0.0044	0.0050
	(-0.22)	(-0.21)	(0.05)	(0.07)	(0.39)	(0.43)
STOCKVOL	-0.2191	-0.1601	-0.0526	-0.0546	-0.0517	-0.0552
	(-0.29)	(-0.26)	(-0.76)	(-1.11)	(-0.79)	(-1.19)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Adj R^2	0.1141		0.1571		0.1348	
Prob>Chi2		0.0083		0.0000		0.0000
N	226	226	226	226	226	226