Available online at www.sciencedirect.com
SCIENCE DIRECT®
Journal of Banking & Finance 29 (2005) 1813–1834
Journal of BANKING & FINANCE
www.elsevier.com/locate/jbf

Multiple large shareholders and firm value

Benjamin Maury [a], Anete Pajuste [b,*]

[a] *Department of Finance and Statistics, Swedish School of Economics and Business Administration, P.O. Box 479, Helsinki 00101, Finland*
[b] *Department of Finance, Stockholm School of Economics, P.O. Box 6501, Stockholm S-11383, Sweden*

Received 24 March 2003; accepted 8 July 2004
Available online 22 September 2004

Abstract

This paper investigates the effects of having multiple large shareholders on the valuation of firms. Using data on Finnish listed firms, we show, consistent with our model, that a more equal distribution of votes among large blockholders has a positive effect on firm value. This result is particularly strong in family-controlled firms suggesting that families (which typically have managerial or board representation) are more prone to private benefit extraction if they are not monitored by another strong blockholder. We also show that the relation between multiple blockholders and firm value is significantly affected by the identity of these blockholders.

JEL classification: G3; G32
Keywords: Corporate governance; Ownership structure; Multiple blockholders; Firm value

1. Introduction

Recent empirical work has shown that ownership is typically concentrated in the hands of a small number of large shareholders (e.g., La Porta et al., 1999; Barca and Becht, 2001). This evidence has shifted the focus from the traditional conflict of

* Corresponding author. Tel.: +371 618 6301; fax: +46 8 312 327.
E-mail address: anete.pajuste@hhs.se (A. Pajuste).

0378-4266/$ - see front matter
doi:10.1016/j.jbankfin.2004.07.002

interest between managers and dispersed shareholders (Berle and Means, 1932) towards an equally important agency conflict between large controlling shareholders and minority shareholders. On the one hand, large shareholders can benefit minority shareholders by monitoring managers (Shleifer and Vishny, 1986, 1997). On the other hand, large shareholders can be harmful if they pursue private goals that differ from profit maximization or if they reduce valuable managerial incentives (Shleifer and Vishny, 1997; Burkart et al., 1997). In this paper, we address a different question: In which way do multiple large shareholders, as opposed to just one large shareholder, benefit or harm minority shareholders?

Outside the United States, the presence of several large shareholders [1] with substantial blocks of shares is common (Barca and Becht, 2001). Data on 5232 European companies collected by Faccio and Lang (2002) show that 39% of firms have at least two blockholders that hold at least 10% of the voting rights, and 16% of firms have at least three blockholders. Therefore, it is important to study the allocation of control between multiple large shareholders, as well as its impact on firm performance. The theoretical literature provides models in which multiple blockholders compete for control (Bloch and Hege, 2001), monitor the controlling shareholder (Winton, 1993; Pagano and Röell, 1998; Bolton and Von Thaden, 1998), and form controlling coalitions to share private benefits (Zwiebel, 1995; Pagano and Röell, 1998; Bennedsen and Wolfenzon, 2000; Gomes and Novaes, 2001).

Empirical evidence on the effect of multiple large shareholders on firm performance has been limited. For Italy, Volpin (2002) provides evidence that valuation is higher when control is to some extent contestable as in the case in which a voting syndicate controls the firm. Lehman and Weigand (2000) report that the presence of a strong second largest shareholder enhances profitability in German listed companies. Faccio et al. (2001) test the effect of multiple large shareholders on dividends. They find that the presence of multiple large shareholders dampens expropriation in Europe (due to monitoring), but exacerbates it in Asia (due to collusion). Most of these empirical studies focus on the simple presence of multiple blockholders, and not on the characteristics of individual blockholders.

We present a simple model in which multiple blockholders can have two different roles in firms. On the one hand, by holding a substantial voting block, a blockholder has the power and the incentives to monitor the largest shareholder and therefore the ability to reduce profit diversion. On the other hand, the blockholder can form a controlling coalition with other blockholders and share the diverted profit. One of the key contributions of this paper is the derivation of conditions under which the diversion of profits can be higher in firms with multiple blockholders than in firms with a single blockholder. Related to the first role, we hypothesize that firm value is positively affected by the ability to challenge the largest block, i.e., by contestability. Related to the second role, we hypothesize that firm value is negatively affected by the presence of blockholders, who, by colluding, can increase the efficiency of private benefit extraction.

[1] In this paper, terms *large shareholder* and *blockholder* are used interchangeably as synonyms.

Using a sample of 136 non-financial Finnish listed companies that have at least one large shareholder with more than or equal to 10% of the votes, we find that the contestability of the largest shareholder's voting power (using different measures) has a positive effect on firm value, as measured by Tobin's Q. The data show that firm value increases when the voting power is distributed more equally. The contestability of control power is particularly important in family-controlled firms. As families typically have managerial or board representation, this result suggests that firm value can decrease if the outsiders' ability to monitor the insiders is low.

Interestingly, we find that a higher voting stake by another family is *negatively* related to firm value in family-controlled firms, whereas a higher voting stake held by another non-family owner, typically a financial institution, is *positively* related to firm value in family-controlled firms. These results suggest that the incentives to collude with the largest shareholder or to monitor the largest shareholder are significantly affected by the type of the blockholder. Consistent with our model, we explain this result by suggesting that some coalitions (e.g., two families) can make profit diversion easier. Meanwhile in other coalitions, expropriation can be more difficult.

The paper proceeds as follows. Section 2 presents a model on the effects of multiple large shareholders on firm value, and derives testable hypotheses. Section 3 describes the data set and variables. Section 4 presents regression results. Section 5 offers robustness checks, and Section 6 concludes.

2. Multiple blockholders and firm value: A simple model

Previous research shows that the presence of large shareholders, who can monitor the actions of the manager, can benefit minority shareholders (e.g., Shleifer and Vishny, 1986). Following this reasoning, multiple large shareholders can reduce profit diversion by monitoring the controlling shareholder (Pagano and Röell, 1998). The previous theoretical models, however, emphasize the simple presence of multiple blocks. In our model, we show how the identity and relative size of the blockholders can affect the level of private benefit extraction. In particular, we present the conditions under which the presence of another block can harm minority investors.

We follow the model set-up in La Porta et al. (2002) and assume that the diversion of profits is inefficient – the controlling coalition receives $sRI - c(s, \bullet)RI$, where RI is the firm's profit (I is the amount of cash invested with the gross rate of return R), $c(s, \bullet)$ is the cost-of-theft function, i.e., the share of profit that is wasted when s is diverted. [2] We assume that $c_s > 0$ and $c_{ss} > 0$, i.e. that the marginal cost of stealing is positive, and the marginal cost of stealing rises as more is stolen. Firm valuation is measured by $Q = (1 - s)R$.

[2] As in La Porta et al. (2002), we assume that the ownership structure has been chosen in the past. Alternatively, the ownership structure can be endogenized, as, for example, in Stulz (1988) or Shleifer and Wolfenzon (2002).

We assume that the largest blockholder is the manager, which is always included in the controlling coalition. [3] In firms with professional managers, we still assume that the largest blockholder has the power to influence managerial decision-making, as well as tools to extract private benefits at the expense of minority shareholders. [4] In the data, we observe that when the largest shareholder lacks managerial representation, managers and board members themselves have very low ownership and control stakes. Therefore, the aggregate holdings of top executives are not likely to alter the control power of the blockholders.

Under these assumptions, the controlling coalition maximizes

$$V^{C} = \alpha_n(1-(1-k)s)RI + (1-k)sRI - c(s,\bullet)RI, \tag{1}$$

where α_n is the sum of the cash-flow stakes held by the coalition partners, and k is the probability to recover the diverted profits, which we call the *contestability* of the controlling coalition's power. The contestability increases with the voting power of the blockholders outside the coalition (v_{out}). We assume that there is no additional cost to monitoring, i.e., just by having a large minority stake (more than 10% of the shares), the shareholder can order, for example, an audit, and, in so doing, the diverted profits will be returned to the firm with probability k. The first term in (1) is the share of after-theft cash flows (or dividends), and the remaining two terms are the benefits from expropriation. The diverted profit is shared among coalition partners through efficient bargaining. [5]

The first order condition is given by

$$V^{C}_{s} = -(1-k)\alpha_n + (1-k) - c_s(s,\bullet) = 0, \tag{2}$$

which can be rewritten as

$$c_s(s,\bullet) = (1-\alpha_n)(1-k). \tag{3}$$

The optimal s^* is determined from Eq. (3). We assume that the parameters in the cost-of-theft function are such that all the optimal private benefits (s^*) are within the limits $s^* \in [0,\hat{s}]$, where $\hat{s}$ is the maximum fraction of the profits that can be diverted.

We can now derive testable hypotheses for the ownership structures with multiple blockholders. First, assume that the marginal cost of stealing depends only on the number of coalition partners. In particular, assume that the marginal cost of stealing is the same or higher in the multiple blockholder case as compared to the one blockholder case. [6] In this case, the simple presence of multiple blocks reduces the private

[3] This assumption stems from the fact that the largest block typically has higher voting power than the rest of the blocks combined in our sample.

[4] In this paper, we focus on the agency problem between large shareholders and minority shareholders, disregarding the traditional principal–agent problem between professional managers and shareholders.

[5] The relative distribution of diverted profits has no effect on the hypotheses tested in this paper. Therefore, this discussion, as well as the derivation of feasibility and sustainability conditions for the coalition formation is not reported but is available from the authors upon request.

[6] The marginal cost of stealing can increase with the number of coalition members if it becomes harder to keep the diversion of profits secret with several partners.

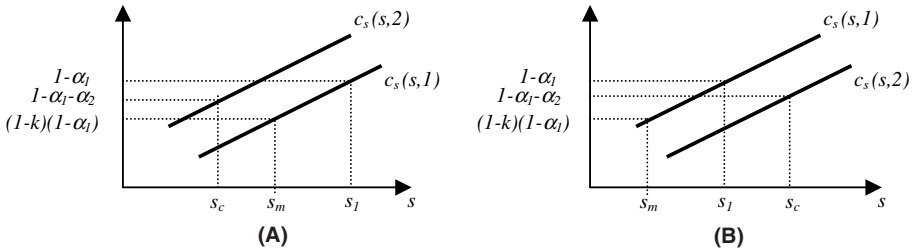

Fig. 1. Equilibrium level of private benefit extraction (two blockholder case). The figure shows the equilibrium level of private benefit extraction (s) depending on the presence of one or two controlling shareholders. The equity ownership stakes of the largest and second largest blockholders are α_1 and α_2, respectively. The contestability of the largest blockholder's control power is k. The marginal cost-of-theft function with one and two blockholders is $c_s(s, 1)$ and $c_s(s, 2)$, respectively. The equilibrium level of private benefit extraction with one controlling shareholder is s_1, with two blocks colluding it is s_c, and with the second block monitoring the first block it is s_m. In figure A, it is assumed that the marginal cost of theft is *higher* if the coalition is formed by two blockholders, as compared to just one blockholder. In figure B, it is assumed that the marginal cost of theft is *lower* if the coalition is formed by two blockholders, as compared to just one blockholder.

benefit extraction (see Fig. 1A). For example, assume that the cost-of-theft function only depends on the diverted profit, s, irrespective of the coalition structure. By differentiating the first order condition with respect to k (Eq. (4)) and α_n (Eq. (5)), and rearranging terms, we get

$$\frac{\mathrm{d}s^*}{\mathrm{d}k} = -\frac{1-\alpha_n}{c_{ss}(s,\bullet)} < 0, \tag{4}$$

$$\frac{\mathrm{d}s^*}{\mathrm{d}\alpha_n} = -\frac{(1-k)}{c_{ss}(s,\bullet)} < 0. \tag{5}$$

Under current assumptions, the private benefits (s^*) are strictly lower when there is more than one blockholder. If the controlling coalition consists of only the largest shareholder, $\alpha_n = \alpha_1$, then private benefits are lower because the remaining blockholders have some monitoring power, $k > 0$. If, in turn, the controlling coalition suppresses the remaining contestability, i.e., $k = 0$, then private benefits are lower because the controlling coalition internalizes a larger fraction of cash-flow rights than in the single blockholder case, $\alpha_n > \alpha_1$. The latter result is consistent with the alignment effect described by Bennedsen and Wolfenzon (2000). This gives us the first testable hypothesis:

Hypothesis 1. An increase in the contestability of the controlling coalition's power should increase firm value.

The assumption that the marginal cost of stealing increases with the number of coalition partners implies that the simple presence of multiple blockholders should have a positive effect on firm value. This is inconsistent with several previous studies (e.g., Faccio et al., 2001) that find rather mixed results on the effect of the presence of

multiple blockholders. In this paper, we argue that certain coalitions can actually *reduce* the marginal cost of stealing either by (i) increasing the voting power of the coalition, or (ii) adding extra knowledge and resources for hiding the diversion of profits. For these two reasons, from now on, assume that the marginal cost of stealing is *lower* in the multiple blockholder case as compared to the one blockholder case; see Fig. 1B.

Higher voting power of the coalition may allow for more unanimous decision making and better hiding of profit diversion. Following this reasoning, we can express the cost-of-theft function as $c(s, v_{\text{in}})$, where v_{in} is the total voting power of the coalition. We assume that $c_{sv} < 0$, i.e. the marginal cost of stealing decreases with the voting power of the coalition. Recall that k depends on the voting power of the blockholders outside the controlling coalition. This means that if a blockholder with higher voting power is added to the controlling coalition, the remaining contestability is lower than if a blockholder with lower voting power joins the coalition, $\mathrm{d}k/\mathrm{d}v_{\text{in}} < 0$. Differentiating Eq. (3) with respect to v_{in}, and rearranging terms, we get

$$\frac{\mathrm{d}s*}{\mathrm{d}v_{\text{in}}} = \frac{-(1-\alpha_n)\dfrac{\mathrm{d}k}{\mathrm{d}v_{\text{in}}} - c_{sv}}{c_{ss}} > 0. \tag{6}$$

The first term in the nominator of Eq. (6) shows that an increase in v_{in} has an adverse effect on private benefits extraction because it reduces the remaining contestability (k decreases). The second term in the nominator shows that private benefits increase, as v_{in} increases, because the marginal cost of stealing decreases due to higher voting power in the hands of the controlling coalition ($c_{sv} < 0$). This result suggests that the private benefits can be higher with multiple blockholders, if the negative effect of the added voting power (Eq. (6)) is *higher* than the positive effect of the added cash-flow rights (Eq. (5)); see Fig. 1B. Results (5) and (6) combined, give us the second testable hypothesis:

Hypothesis 2. Firms with higher voting power and lower cash-flow rights held by the controlling coalition should have lower firm value.

Hypothesis 2 suggests that high voting power gives discretion in private benefit extraction (low contestability), whereas low cash-flow ownership reduces the incentive effect. [7]

The marginal cost of stealing can decrease with multiple blockholders if certain type of blockholders can add extra knowledge and resources for hiding the diversion of profits. We can express the cost-of-theft function as $c(s, a)$, where a is the blockholder's ability to reduce the marginal cost of stealing, and hence, $c_{sa} < 0$. What kind of blockholders are capable of reducing the marginal cost of private benefit extrac-

[7] This is consistent with both theoretical papers (Grossman and Hart, 1988; Harris and Raviv, 1988; Bennedsen and Wolfenzon, 2000) and empirical work (La Porta et al., 2002; Claessens et al., 2002; Cronqvist and Nilsson, 2003) showing that the negative effect of large shareholders is magnified if there is a substantial departure from one share–one vote.

tion? We propose that the marginal cost of private benefit extraction is likely to be higher if the controlling coalition includes a financial institution as compared to, for example, a family. Since the opportunity cost of getting caught for diverting the firm's proceeds presumably is higher for financial institutions that are supervised by regulatory authorities, diversion is less likely to be an attractive alternative. It is easier for two families to form a coalition and extract private benefits within the legal bounds, than for a family and, for example, a fund manager. The latter case is more likely to be a violation of law.

Differentiating Eq. (3) with respect to a, and rearranging terms, we get

$$\frac{\mathrm{d}s*}{\mathrm{d}a} = -\frac{c_{sa}}{c_{ss}} > 0. \tag{7}$$

This result suggests that the private benefits can be higher with multiple blockholders if the negative effect of the added ability to hide profits (Eq. (7)) is higher than the positive incentive effect from higher cash-flow stake (Eq. (5)). We can now state the final testable hypothesis:

Hypothesis 3. Firm value should be lower if the controlling coalition is formed by blockholders that can jointly reduce the marginal cost of stealing.

Related to Hypothesis 3, the model could also be tested in a cross-country setting. If a certain institutional environment can reduce the marginal cost of stealing by coalitions consisting of multiple blockholders, the model can explain differences in profit diversion among countries. For example, the model can explain the results in Faccio et al. (2001) suggesting that other large shareholders in Asian companies typically are long-standing allies of the largest shareholder (i.e., they could reduce the marginal cost of stealing), while other large shareholders in Europe tend to monitor the largest shareholder.

3. Data

3.1. Sample

We collect data on ownership structures in Finnish listed companies during 1993–2000. The total number of firm-year observations with ownership data is 804. From the initial sample, we exclude banks and insurance companies. Since the focus of the paper is on the role of blockholders, we also exclude firm-years that do not have any blockholder with at least 10% of the votes. As a result, our unbalanced panel used in the analyses consists of 136 firms and a total of 612 observations over the eight-year period.

The main source for ownership data is the yearbook *Pörssitieto*. The book reports the cash-flow ownership and votes of the 20 largest shareholders ranked by ownership. Where the data are inadequate in the book, we use firms' annual reports. We collect data on equity, votes, and the identity (type) of the three largest owners in

each firm. We classify the shareholders into the following types: family, corporation, financial institution, state, and other. Ownership by families is aggregated to include family members with the same surname. Families are assumed to own and vote collectively. *Pörssitieto* sums up the ownership of financial firms belonging to various banking and insurance groups, although these do not legally form a group. We use the same group classification.

We have tried to identify the ultimate owners in Finnish listed companies. We include indirect holdings through private firms by private persons when they are reported among the 20 largest shareholders. If a corporation or financial institution owns a company in our sample, we check further to see if it has a majority owner and report the ultimate owner's type, if there is one. If the owner is a private corporation and none of the insiders (board members and managers) have a controlling stake in it, we report this owner type as a corporation. The ownership data are at the end of the financial year. The fact that all ownership data are not from exactly the same date does not cause a problem, because the ownership structures tend to be stable in the vast majority of firms over the studied period.

3.2. Variable descriptions

The main proxy for firm valuation (the Q of the model) is Tobin's Q, which is defined as the market value of assets divided by the replacement cost of assets. To calculate the market value of assets, we take the sum of the market value of outstanding shares and the book value of debt. If a firm has more than one share class listed, we sum the market values of the different share classes. To estimate the market value of an unlisted share class, we use the price of the listed share class times the number of unlisted shares to get an implied value of the unlisted share class. [8] Our estimate of the denominator of Tobin's Q, the replacement value of the firm's assets, is the book value of total assets. To reduce the impact of extreme values, we censor the Tobin's Q variable at the 5th and 95th percentiles, setting extreme values to the 5th and 95th percentile values, respectively. The market value of equity, the book value of assets and all other accounting data for the control variables come from *Datastream*. If the firm is not covered by *Datastream*, we add the accounting data from available annual reports.

Hypothesis 1 suggested that firm valuation increases with the contestability of the largest shareholder's power. We use several proxies for the contestability of power, the k from the model. The first is the Herfindahl index (HI_differences) measured by the sum of squares of the differences between the first and the second largest voting stakes, and the second and the third largest voting stakes, $(\text{Votes } 1 - \text{Votes } 2)^2 + (\text{Votes } 2 - \text{Votes } 3)^2$. The second measure, called HI_concentration, is a proxy for the total concentration of the blockholders' voting power. HI_concentration is calculated as the sum of squares of the three largest voting stakes,

[8] One can argue that this estimation method could bias our measure of Tobin's Q if there is a large difference in the prices of high and low voting shares (the voting premium). This is unlikely to be a problem in our data, because the voting premiums during the sample period generally have been low (see also Nenova, 2003).

(Votes 1)^2 + (Votes 2)^2 + (Votes 3)^2. Both Herfindahl measures are transformed into logarithms to control for skewness, [9] and they are expected to have a negative relation to firm value. [10]

Another measure of contestability used in our study is the Shapley value, which is the probability that a particular shareholder is pivotal in forming a majority coalition (more than 50% of the votes). To calculate the Shapley value, the three largest blockholders are treated as individual players, while the rest are treated as an "ocean", for whom the Shapley value is the continuous version for oceanic games (Milnor and Shapley, 1978). If the largest block holds more than 50% of the votes, the Shapley value is equal to one. If the largest block does not hold a majority, the contestability of the largest shareholder's power increases with lower Shapley values. Hence, the relation between the Shapley value of the largest shareholder and firm value is expected to be negative.

Although the Herfindahl indices and the Shapley value have more empirical appeal because they are continuous measures, we also introduce a dummy variable, called *High contestability dummy*, which takes into account the important legal minority shareholder rights assigned to shareholders with at least 10% of shares, such as, for example, the right to request an extraordinary general meeting or appoint an additional auditor. The *High contestability dummy* takes a value of one if the two largest shareholders cannot form a majority, and there is at least one more blockholder (with 10% of the votes). This variable captures situations in which even with two blockholders forming a coalition, there is a blockholder who can contest the power of the controlling coalition. The relation between the *High contestability dummy* and firm value is expected to be positive.

Hypothesis 2 suggested that firm valuation decreases with a higher wedge between the voting power and the equity ownership. In particular, we want to disentangle the incentive effect associated with cash-flow rights from the entrenchment effect associated with having control rights in excess of cash-flow ownership. We use the equity stake of the largest shareholder, to measure the incentive effect, and control-to-ownership ratio, to measure the entrenchment effect that can arise when the largest shareholder has less equity participation than control.

Four additional variables are introduced to control for factors that have been shown to have an impact on Tobin's Q. The control variables include firm size, financial leverage, sales growth, and asset tangibility. Firm size is measured by the logarithm of total assets, and is expected to have a negative effect on firm value as larger firms are, presumably, in a more mature stage of their life cycle. Leverage is measured by the book value of all long-term liabilities divided by total assets. Leverage can play a disciplinary role by limiting the free cash flow at hand, and hence reduce profit diversion. However, leverage can also have a negative effect if it increases the risk of financial distress and bankruptcy. Hence, we do not have a clear prediction on

[9] If HI_differences is zero, the log(HI_differences) is set equal to the lowest value of log(HI_differences) among all other observations. There is only one such case.

[10] The results are qualitatively the same if we do not make the logarithmic transformations of the Herfindahl indices before including them in the regressions.

the relation between leverage and firm value. Sales growth is measured by the percentage change in sales year-on-year. Since faster growing companies tend to have higher valuations, we expect a positive relation between sales growth and firm value. Asset tangibility is the ratio of tangible assets divided by total assets. Firms with lower asset tangibility presumably have a higher proportion of intangible assets (e.g., human capital) generating the cash-flows. Therefore, we expect a negative relation between asset tangibility and Tobin's Q. We cap the leverage and sales growth variables at the 5th and 95th percentiles to reduce the weight of outliers.

The regressions also include year dummies to account for time effects, and industry dummies to account for effects due to the nature of firm's industry. We follow the Helsinki Stock exchange classification of industry groups, and construct seven industry dummies: Food, Industry, Investment, Media, Telecommunications, Trade, and Other.

3.3. Descriptive statistics

Panel A of Table 1 presents summary statistics for variables used in this study. The average Tobin's Q across all firm-years is 1.39. The largest shareholder has on average 42.3% of the voting rights and 33.5% of the cash-flow rights. The average voting stakes of the second and third largest shareholders are 11.6% and 5.9%, respectively. The control-to-ownership ratio is the highest for the largest shareholder (1.36). The second largest shareholder has the average control-to-ownership ratio of 1.24, and the third largest shareholder 1.09. The ownership and control variables tend to be highly correlated, therefore, to avoid problems with multicollinearity, the control contestability variables have to be estimated in separate regressions.

The distribution of votes and cash-flow rights held by the largest shareholder in Finnish listed companies is displayed in Panel B of Table 1. Family is the most common ownership type among the largest shareholders (36.3% of total). Further classification shows that if a family is the largest shareholder, it almost always has a representative among managers or board members. The second largest ownership category is corporations, controlling 26.3% of the firms. Financial institutions control 12.6% of the firms but with smaller average stakes. The (unreported) distribution of ownership types among the second and third largest shareholders reveals that financial institutions dominate here, 40.2% of the second largest shareholders and 50.3% of the third largest shareholders are financial institutions.

To evaluate the stability of the ownership structures, we examine (though do not report in a table) the frequency distribution of changes in the voting power by the largest owners. Although the annual absolute change in control rights by the largest shareholder is within 5% in 79% of the firm-years, the absolute change is greater than 10% in almost 10% of the firm-years. The percent of firm-years in which the absolute change in the second and third largest shareholder's voting power is within 5% amounts to 91% and 96%, respectively. Thus, the variation in blockholders' stakes over time typically is low, but some changes do occur, particularly with the largest block.

Table 1
Summary statistics and the distribution of ownership and control

Panel A. Summary statistics

Variable	Mean	Median	Min	Max	Standard deviation
Tobin's Q	1.39	1.12	0.76	3.48	0.70
Return on assets	0.08	0.07	−0.02	0.21	0.06
Votes 1	42.34	40.00	10.00	96.20	23.08
Votes 2	11.58	9.79	0.20	43.60	8.68
Votes 3	5.91	4.76	0.00	24.20	4.82
Equity 1	33.54	30.25	1.40	96.10	20.40
Equity 2	9.77	8.30	0.40	43.60	6.88
Equity 3	6.09	4.80	0.00	41.10	5.21
CO1 (=Votes 1/Equity 1)	1.36	1.00	0.66	2.76	0.54
CO2 (=Votes 2/Equity 2)	1.24	1.00	0.03	2.87	0.61
CO3 (=Votes 3/Equity 3)	1.09	1.00	0.11	2.43	0.54
HI_concentration	7.41	7.54	4.96	9.13	1.05
HI_differences	6.19	6.71	3.22	9.12	2.13
Shapley value 1	0.60	0.51	0.11	1.00	0.35
High contestability dummy	0.09	0.00	0.00	1.00	0.29
Leverage	0.63	0.45	0.00	2.51	0.64
Growth in sales	0.15	0.10	−0.22	0.90	0.26
Asset tangibility	0.39	0.36	0.00	0.96	0.23
Size (log of assets)	12.24	12.24	8.76	16.87	1.66

Panel B. Ownership and control by the largest shareholder

Largest shareholder's type	*N*	% of total	Votes (%)		Equity (%)	
			Mean	Median	Mean	Median
Family	222	36.3	51.1	55.9	36.9	33.3
Of which families have:						
(1) Managerial representation	*93*	*15.2*	*55.3*	*63.7*	*37.9*	*38.3*
(2) Board representation	*111*	*18.1*	*49.8*	*55.8*	*37.2*	*32.0*
(3) No direct representation	*18*	*0.03*	*37.6*	*23.9*	*29.6*	*17.1*
Corporation	161	26.3	36.2	31.4	32.5	30.2
Financial	77	12.6	25.8	19.5	23.1	18.1
State	82	13.4	48.2	50.0	47.1	50.0
Other	70	11.4	39.9	40.3	21.1	15.6
Total	612	100.0	42.3	40.0	33.5	30.3

The table presents summary statistics for 136 Finnish listed non-financial firms with at least one blockholder over the period 1993–2000. The variables are: Tobin's Q, the market value of equity plus book value of total assets minus book value of equity all divided by book value of total assets; Return on assets, operating profit divided by total assets; Votes 1 (2, 3), the fraction of the votes held by the first (second, third) largest shareholder; Equity 1 (2, 3), the fraction of cash-flow rights held by the first (second, third) largest shareholder; CO1, CO2, and CO3, voting rights divided by equity rights of the first, second, and third largest shareholder, respectively; HI_concentration, the logarithm of the sum of squares of the three largest owners' voting stakes; HI_differences, the logarithm of the sum of squares of the differences between the largest and second largest, and the second and third largest voting stakes; Shapley value 1, the Shapley value solution for the largest shareholder in a three shareholder voting game; High contestability dummy, equals 1 if the sum of the voting power held by two largest shareholders does not exceed 50% and there are three (or more) owners with at least 10% of the votes each, and 0 otherwise; Leverage, total

(*continued on next page*)

Table 1 (*continued*)
long-term liabilities (book value) divided by total assets; Growth in sales, percentage change in sales year-on-year; Asset tangibility, tangible assets divided by total assets; and Size, the logarithm of total assets. In Panel B, owners' types are: family, including private persons with the same surname; corporation, including private companies in which major shareholder is not one of the direct owners in the sample company; financial, including financial institutions and insurance companies; state, including state, cities and municipalities; and other, including mainly associations, non-profit organizations and academic institutions.

Table 2 provides a more detailed description of block ownership. In 52% of firm-year observations (318 out of 612) there is only one blockholder. Two blockholders are present in 31.7% of the cases, while in 16.3% of the cases there are three blockholders. [11] Table 2 suggests that the valuation consequences of control differ depending on the number of blocks and on the aggregate voting power of the largest shareholders. If we simply compare the median Tobin's Q under one, two or three blocks, there is not very much of a variation (1.11–1.15). However, a very different picture arises when we differentiate between the aggregate voting power of more than 50% and less than 50%. Panel B of Table 2 shows that the median Tobin's Qs are significantly higher if the largest block or two largest blocks do not have a majority. This result gives some preliminary evidence suggesting that a majority stake can increase the efficiency of private benefit extraction and hence decrease firm value.

4. Regression results

In this section, we present the empirical results of the value effects in firms with one or more blockholders. In particular, we try to estimate the effects of contestability (H1), separation between ownership and control (H2), and different potential coalitions formed by the blockholders of different types and with different voting power (H3).

The main model is a pooled *ordinary least squares* (OLS) with industry and year dummies, and it includes data on 612 firm-years. Table 3 reports the OLS estimates, as well as the *t*-statistics that are calculated using the fully robust variance-matrix estimator, which allows for within-cluster (firm) correlation and heteroskedasticity. The robust estimator assumes no particular kind of within-cluster correlation nor a particular form of heteroskedasticity. This specification relaxes the independence assumption required by the OLS estimator to being just independence between the clusters (firms). This specification yields broadly similar results compared to a random-effects model (not reported), which controls for possible unobserved firm-specific effects. Robustness of the results and alternative model specifications are discussed in the next section. On the basis of the discussion in the previous sections, the following model is estimated:

[11] More than three blocks are rare (e.g., in 1999 only 4 out of 116 Finnish firms with a controlling shareholder had four or more blockholders (Faccio and Lang, 2002)). Karhu et al. (1998) find that usually no more than three largest blockholders exercise their power at the general meetings of Finnish companies.

Table 2
Descriptive statistics: blockholders and median Tobin's Qs

	One block		Two blocks		Three blocks		Total N
	N	Median Tobin's Q	N	Median Tobin's Q	N	Median Tobin's Q	
Panel A: Block owners and Tobin's Q values							
Votes 1 + Votes 2⩽50 [1]			74	1.20	57	1.26	131
Votes 1 + Votes 2 > 50 [2]			120	1.07	43	1.14	163
Votes 1⩽50 [3]	160	1.20					160
Votes 1 > 50 [4]	158	1.06					158
Total	318	1.11	194	1.11	100	1.15	612
Panel B: Z-statistics for differences in medians							
Test: [3] vs. [4]		3.65***					
Test: [1] vs. [2]				2.27**		1.87*	

The table shows the number of firm-year observations in each category of controlling blocks and median Tobin's Q values. The sample consists of 136 Finnish non-financial listed firms with at least one blockholder for the period 1993–2000. A block is defined as a shareholder (or a group of related shareholders) with at least 10% of the votes. Tobin's Q is measured by market value of equity plus book value of total assets minus book value of equity, all divided by book value of total assets. Votes 1 and Votes 2 are the fraction of the votes held by the first and second largest shareholders, respectively. Wilcoxon z-statistics test for differences in median Tobin's Qs between different block ownership categories.

* Significance at the 10% level.

** Significance at the 5% level.

*** Significance at the 1% level.

$$\text{Tobin's Q}_{it} = \alpha_{it} + \beta_1 \text{Contestability}_{it} + \sum_{k=2}^{5} \beta_k \text{CONTROL}_{itk} + \beta_6 \text{Year}_t + \beta_7 \text{Industry}_i, \quad (8)$$

where 'CONTROL' variables include leverage, sales growth, asset tangibility, and firm size.

4.1. Testing Hypotheses 1 and 2

Regressions (1) to (3) of Table 3 report the results of the effect of control contestability on firm valuation. All the three continuous proxies for contestability exhibit the predicted negative sign, and are statistically significant. The Herfindahl index measuring the differences in the voting stakes among the three largest shareholders (HI_differences) has the highest explanatory power. A negative relation means that a more equal distribution of the voting power among the largest blockholders (lower HI_differences) has a positive effect on firm value. The other measures, HI_concentration and the Shapley value of the largest shareholder, are also significantly negatively related to firm value (at the 10% level). All these measures take into account the voting power of the largest shareholder, as well as the asymmetry between individual blockholders' fractions of votes, hence confirming Hypothesis 1, which stated that an increase in control contestability should increase firm value.

Table 3
Regressions on the relation between firm value and control contestability

	(1)	(2)	(3)	(4)	(5)	(6)
HI_differences	−0.05***					
	(−2.81)					
HI_concentration		−0.07*				
		(−1.94)				
Shapley value 1			−0.19*			
			(−1.81)			
Multiple blocks dummy				0.06		
				(0.95)		
High contestability dummy					0.32***	
					(2.63)	
CO1 (= Votes 1/Equity 1)						−0.27***
						(−3.55)
Equity 1						−0.002
						(−1.17)
Leverage	−0.06	−0.04	−0.04	−0.05	−0.07	−0.06
	(−1.04)	(−0.80)	(−0.87)	(−0.95)	(−1.31)	(−1.26)
Growth	0.44***	0.45***	0.45***	0.44***	0.45***	0.40***
	(3.83)	(3.81)	(3.77)	(3.68)	(3.84)	(3.68)
Asset tangibility	−0.18	−0.20	−0.22	−0.25	−0.17	−0.22
	(−1.17)	(−1.33)	(−1.45)	(−1.64)	(−1.12)	(−1.39)
Size	−0.05**	−0.05**	−0.04*	−0.03	−0.04*	−0.05**
	(−2.07)	(−2.18)	(−1.95)	(−1.60)	(−1.67)	(−2.33)
Constant	2.05***	2.29***	1.85***	1.62***	1.62***	2.29***
	(6.46)	(5.45)	(5.96)	(5.61)	(5.75)	(6.34)
R^2	0.50	0.48	0.48	0.48	0.51	0.51
Number of obs.	612	612	612	612	612	612

The table presents regressions of Tobin's Q on ownership and control variables for 136 Finnish listed non-financial firms with at least one blockholder over the period 1993–2000. The dependent variable is Tobin's Q, measured as market value of equity plus book value of total assets minus book value of equity, all divided by book value of total assets. The independent variables are: Equity 1, the fraction of cash-flow rights held by the largest shareholder; CO1, voting rights divided by equity rights of the largest shareholder; HI_concentration, the logarithm of the sum of squares of the three largest owners' voting stakes; HI_differences, the logarithm of the sum of squares of the differences between the largest and second largest, and the second and third largest voting stakes; Shapley value 1, the Shapley value solution for the largest shareholder in a three shareholder voting game; High contestability dummy, equals 1 if the sum of the voting power held by two largest shareholders does not exceed 50% and there are three (or more) owners with at least 10% of the votes each, and 0 otherwise; Multiple blocks dummy, equals 1 if there is more than one shareholder with at least 10% of the votes; Leverage, total long-term liabilities (book value) divided by total assets; Growth in sales, percentage change in sales year-on-year; Asset tangibility, tangible assets divided by total assets; and Size, the logarithm of total assets. The regressions include year dummies and industry dummies (not reported). The *t*-statistics (in parentheses) are based on robust standard errors that are corrected for clustering at the firm level.

* Statistical significance at the 10% level.

** Statistical significance at the 5% level.

*** Statistical significance at the 1% level.

In Section 2, we argued that if the number and the type of blockholders included in the controlling coalition do not change the marginal cost of stealing, the simple

presence of multiple blocks should have a positive effect on firm value. Regression (4) of Table 3 shows that the presence of multiple blocks has a positive effect on firm value, although it is statistically insignificant. In contrast, the significance of the Herfindahl indices suggests that the relative distribution of voting power is more important than the presence of multiple blocks.

In Regression (5) of Table 3, we show that the *High contestability dummy* has a significantly positive effect on firm value. This result suggests that a control structure with three blockholders, in which any two blockholders, by colluding, cannot form a simple majority, is value enhancing. Consistent with our model in Section 2, the three blockholder case implies that in any coalition with less than three blockholders, the remaining contestability is high (value increases). If, instead, a coalition is formed by all the three blockholders, the value effect again is positive because this coalition internalizes more cash flow benefits, making private benefit extraction less appealing.

The last model of Table 3 attempts to disentangle the effect of cash flow rights (incentive effect) and the effect of control rights (entrenchment effect) on firm value (our Hypothesis 2). The equity stake of the largest shareholder is not significant, while the control-to-ownership ratio of the largest shareholder has a significant negative effect on firm value. Consistent with Hypothesis 2 and earlier studies, this result suggests that the separation between votes and equity increases the extraction of private benefits compared to otherwise similar one share–one vote firms.

4.2. Testing Hypothesis 3

In Section 2, we argued that the level of private benefits may actually depend on the type of blockholders forming the controlling coalition. Previous literature (e.g., Holderness and Sheehan, 1988; Volpin, 2002; Claessens et al., 2002; and Burkart et al., 2003) also note that the identity of the shareholders is important for understanding corporate governance. These studies, however, typically look only at the *largest* shareholder's identity. In Table 4, we try to take into consideration also the identity of other large shareholders. In Regressions (1) and (2), we sub-divide the total sample into two groups: family firms in which the largest shareholder is a family, and all the other firms that we call non-family firms. The results indicate that the contestability of control (measured by the Herfindahl index of the differences between blockholder votes [12] is more important in family firms. From Panel B of Table 1, we see that family-controlled firms almost always have managerial or board representation. This result suggests that the private benefits could substantially increase (firm value decrease) if the ability to monitor the *insiders* is low. Presumably, the marginal cost of stealing can be reduced if the largest blockholder is also an insider. Taken together, large outside shareholders, who have the incentives and

[12] The results are similar (but less significant), if we use HI_concentration or the Shapley value of the largest shareholder. To save space, we do not report these regressions.

Table 4
Regressions on the relation between firm value and control contestability, by shareholder type

	(1)	(2)	(3)	(4)	(5)	(6)
	Family firms	Non-family firms	Family firms with family as second owner	Family firms with non-family as second owner	Family firms with family as third owner	Family firms with non-family as third owner
HI_differences	−0.08***	−0.03				
	(−2.70)	(−1.58)				
Votes 2			−0.02**	0.04**	0.04*	−0.01
			(−2.65)	(2.71)	(1.86)	(−1.06)
Votes 3			0.01	0.001	−0.02	0.06**
			(0.72)	(0.03)	(−1.07)	(2.44)
Leverage	−0.18**	0.01	−0.18	0.02	−0.30**	−0.21
	(−2.01)	(0.21)	(−0.96)	(0.11)	(−2.15)	(−1.04)
Growth	0.57***	0.35**	0.77**	0.41	0.50*	0.78***
	(2.75)	(2.59)	(2.70)	(1.32)	(1.87)	(3.32)
Asset tangibility	0.02	−0.38**	−0.22	−0.17	−0.57	0.37
	(0.05)	(−2.26)	(−0.35)	(−0.59)	(−0.97)	(1.06)
Size	−0.05	−0.06**	−0.12	−0.05	−0.09	−0.04
	(−1.01)	(−2.06)	(−1.22)	(−0.75)	(−1.34)	(−0.64)
Constant	2.13***	2.30***	2.83**	1.31*	2.49**	1.08
	(3.30)	(5.68)	(2.11)	(1.86)	(2.39)	(1.38)
R^2	0.60	0.48	0.65	0.66	0.59	0.69
Firms	55	94	36	32	35	40
Number of obs.	222	390	122	100	107	115

The table presents regressions of Tobin's Q on ownership and control variables for 136 Finnish listed non-financial firms with a blockholder over the period 1993–2000. The dependent variable is Tobin's Q, measured as market value of equity plus book value of total assets minus book value of equity, all divided by book value of total assets. The independent variables are: Votes 2 and Votes 3, the fraction of the votes held by the second and third largest shareholder, respectively; HI_differences, the logarithm of the sum of squares of the differences between the largest and second largest, and the second and third largest voting stakes; Leverage, total long-term liabilities (book value) divided by total assets; Growth in sales, percentage change in sales year-on-year; Asset tangibility, tangible assets divided by total assets; and Size, the logarithm of total assets. The regressions include year dummies and industry dummies (not reported). The *t*-statistics (in parentheses) are based on robust standard errors that are corrected for clustering at the firm level.

* Statistical significance at the 10% level.

** Statistical significance at the 5% level.

*** Statistical significance at the 1% level.

capabilities to monitor the insiders, appear to be beneficial to outside investors. In particular, the results in Table 4 suggest that the benefits of control contestability are most pronounced in firms with little separation between ownership and control, i.e. in family-controlled firms.

To examine the role of other blockholders in family-controlled firms, we split the sample according to the type of the second largest shareholder in Regressions (3) and (4). The voting stake of a second family owner is significantly negatively related to firm value (at the 5% level), whereas the size of the stake of a non-family second owner is significantly positively related to firm value. The same pattern arises when we look at the identity of the third largest shareholder (Regressions (5) and (6)). The voting stake of the third largest shareholder has a negative (though not significant) effect on firm value if it is held by a family, and a positive and significant effect on firm value, if it is held by a non-family owner. We find this result rather striking. Recall that the most common type of the second and third non-family shareholders is financial institutions. These results strongly confirm our third hypothesis conditional on our assumption that a coalition formed by two families is more likely to reduce the marginal cost of private benefit extraction than a coalition formed by a family and, say, a financial institution. [13] This assumption seems plausible taking into account that financial institutions have a higher opportunity cost of engaging in profit diversion activities since they are subject to more scrutiny from regulatory authorities. It is also presumably harder to form coalitions, within legal boundaries, between the private owners and, e.g., fund managers, as compared to two private owners.

5. Robustness

In this section, we address four issues of robustness. First, *what can we do about the endogeneity of ownership?* We re-estimate some of the models in Table 3 treating the ownership variables as endogenous. Following the analysis of Hermalin and Weisbach (1991), we use the lagged values of the ownership variables as their instruments because some changes in ownership occur within firms over time (see Section 3.3). Regression (2) from Table 3 that uses the instrumented HI_differences variable yields

$$\begin{aligned}&\text{Tobin's Q} = 1.94\ \text{Constant} - 0.05\ \text{Predicted HI\_differences} + \text{Control variables},\\ &\qquad\qquad (5.19)\qquad\quad (-2.19)\\ &R^2 = 0.46,\quad \text{obs.} = 492.\end{aligned}$$

The contestability measure HI_differences is significantly negatively related to firm valuation (at the 5% level) using instrumental-variable regressions. The

[13] Boehmer (2000) finds related evidence that multiple controlling shareholders improve bidder performance in German takeovers when bank stakes are dominated by the voting power of another blockholder. McConnell and Servaes (1990) show that institutional ownership improves firm value in US firms.

Table 5
Regressions on the relation between return on assets and measures of control contestability

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Full sample	Full sample	Full sample	Family firms	Family firms	Family firms with family as second owner	Family firms with non-family as second owner	Family firms with family as third owner	Family firms with non-family as third owner
HI_differences	−0.003*			−0.01**					
	(−1.65)			(−2.44)					
HI_concentration		−0.004			−0.01				
		(−1.16)			(−1.27)				
CO1 (=Votes 1 / Equity 1)			−0.01						
			(−0.82)						
Votes 2						−0.001*	0.01***	0.01**	0.0001
						(−1.88)	(5.15)	(2.49)	(0.20)
Votes 3						0.001	0.00	−0.003	0.005*
						(1.26)	(−0.88)	(−1.60)	(1.80)
Leverage	−0.02***	−0.02***	−0.02***	−0.03**	−0.02*	−0.01	−0.02	−0.04***	−0.03
	(−3.31)	(−3.17)	(−3.18)	(−2.07)	(−1.80)	(−0.57)	(−1.20)	(−2.77)	(−1.08)
Growth	0.01	0.01	0.01	0.02	0.03	0.04*	0.01	0.03	0.03
	(1.18)	(1.22)	(1.10)	(1.03)	(1.19)	(1.92)	(0.91)	(1.12)	(1.50)

Asset tangibility	0.02	0.01	0.01	0.06*	0.07*	0.01	0.07*	0.04	0.06
	(0.75)	(0.70)	(0.56)	(1.76)	(1.79)	(0.20)	(1.96)	(0.55)	(1.30)
Size	−0.004*	−0.004*	−0.002	−0.01*	−0.01*	−0.02*	−0.005	−0.01*	−0.01
	(−1.64)	(−1.71)	(−1.43)	(−1.78)	(−1.89)	(−2.29)	(−0.68)	(−1.75)	(−1.24)
Constant	0.14***	0.16***	0.13***	0.19***	0.21***	0.26***	0.09	0.20**	0.09
	(4.57)	(3.71)	(3.72)	(3.86)	(2.84)	(3.12)	(1.15)	(2.28)	(1.42)
R^2	0.16	0.16	0.15	0.19	0.17	0.26	0.57	0.32	0.26
Firms	136	136	136	94	94	36	32	35	40
Number of obs.	612	612	612	390	390	122	100	107	115

The table presents regressions of return on assets on ownership and control variables for 136 Finnish listed non-financial firms with a blockholder over the period 1993–2000. The dependent variable is return on assets, measured as operating profits divided by total assets. The independent variables are: HI_differences, the logarithm of the sum of squares of the differences between the largest and second largest, and the second and third largest voting stakes; HI_concentration, the logarithm of the sum of squares of the three largest owners' voting stakes; CO1, voting rights divided by ownership rights by the largest shareholder; Votes 2, the fraction of voting rights held by the second largest shareholder; Votes 3, the fraction of voting rights held by the third largest shareholder; Leverage, total long-term liabilities (book value) divided by total assets; Growth, percentage change in sales year-on-year; Asset tangibility, tangible assets divided by total assets; and Size, the logarithm of total assets. The regressions include year dummies and industry dummies (not reported). The *t*-statistics (in parentheses) are based on robust standard errors that are corrected for clustering at the firm level.

* Statistical significance at the 10% level.

** Statistical significance at the 5% level.

*** Statistical significance at the 1% level.

instrumental-variable results for the HI_concentration, Shapley value, and control-to-ownership ratio are available but not displayed, to conserve space. HI_concentration and Shapley value keep the negative signs but lose significance. The control-to-ownership ratio remains significantly negative when we treat it as an endogenous variable. Results using instrumental-variable regressions largely confirm our previous findings that contestability of power has a positive effect on firm value, while the separation between ownership and control has a negative effect on firm value.

Second, *is the chosen model specification appropriate?* In all our regressions, we control for clustering at the firm level (which generally reduces the *t*-values), i.e., we do not assume that the within firm variation of variables is independent. We also performed panel data random effects regressions (not reported), which yielded very similar results, thus suggesting that some unobserved firm effects do not bias our results. Although we include year dummies in our regression, we re-estimate the regressions for each year separately. Repeating the analysis on a year-by-year basis lead to similar inferences. Some years lose significance due to low number of observations, but the signs of the main parameters remain intact.

Third, *do firms with unlisted share classes affect the results?* There is a relatively high presence of firms with an unlisted share class (195 firm-years); therefore it is important to discuss the potential bias in calculating Tobin's Q by extrapolating market value of the listed shares onto the unlisted ones. As a robustness check, we re-run the regressions on a sub-sample of 417 firm-years that do not include the firms with unlisted share class. The results do not change.

Finally, *how robust are the results to an alternative performance measure?* We have used Tobin's Q as the main performance measure. As an alternative dependent variable, we use return on assets (ROA), which is calculated as the operating profit divided by total assets, to re-estimate the main results. The results using ROA are displayed in Table 5. The findings generally support those using Tobin's Q, although some parameter estimates are less significant. For instance, HI_differences is negatively related to ROA but only at the 10% significance level (compared to the significance level of 1% in Table 3). HI_concentration (and Shapley value (not reported)) is negative but insignificant. Control-to-ownership variable is negatively, although insignificantly, related to ROA. The effect of the type of the second and the third owner is qualitatively the same using ROA and Tobin's Q, again suggesting that family and non-family blockholders play different roles in firms in which the largest shareholder is a family.

6. Conclusion

This paper examines the role of multiple large shareholders on firm performance using a panel of 136 non-financial Finnish firms during 1993–2000. We propose that even though the simple presence of multiple blocks can have a positive effect on firm value, it is not always the case. The link between control structures with multiple blocks and the valuation of firms is driven by the relative size, as well as the identity of the blockholders.

First, using different measures of control contestability, we confirm the predictions of our simple theory that a more equal distribution of voting rights enhances firm value. The effect is much stronger in family (insider) controlled firms. Insiders are expected to be better in hiding profit diversion, and extracting more private benefits, if their actions and power cannot be challenged. Second, we corroborate previous findings that firm value decreases if the largest shareholder holds more votes than equity rights. Finally, we find that a higher voting stake held by another family reduces firm value in family-controlled firms, whereas a higher voting stake held by another non-family owner improves firm value in family-controlled firms. These results suggest that the incentives to collude with or to monitor the controlling shareholder are affected by the type of the individual owner. These results fit with our theoretical argument that certain blockholders jointly can reduce the cost of extracting private benefits.

The evidence presented in this paper expands our understanding of the link between firm's control structure and its performance, by showing that multiple blockholders can play an important role in corporate governance. Taken as a whole, our results suggest that the contestability of the leading shareholder's power can limit the expropriation of minority shareholders. Comparisons of the relation between control contestability and firm performance in countries with different degrees of investor protection seem an interesting topic for further research.

Acknowledgements

We are grateful to Clas Bergström, Mike Burkart, Henrik Cronqvist, Guido Friebel, Mariassunta Giannetti, Peter Högfeldt, Matti Keloharju, Yrjö Koskinen, Eva Liljeblom, Anders Löflund, Andrei Shleifer, Jeremy Stein, Tuomo Vuolteenaho, seminar participants at Harvard University and Toulouse University, and two anonymous referees for valuable comments. Financial support from the Finnish Academy of Sciences, the Hanken Foundation, OKOBANK Group Research Foundation, Stiftelsen för främjande av värdepappersmarknaden i Finland (Maury), and Handelsbankens Forskningsstiftelse (Pajuste) is gratefully acknowledged.

References

Barca, F., Becht, M., 2001. The Control of Corporate Europe. Oxford University Press.

Bennedsen, M., Wolfenzon, D., 2000. The balance of power in closely held corporations. Journal of Financial Economics 58, 113–139.

Berle, A., Means, G., 1932. The Modern Corporation and Private Property. Macmillan, New York.

Bloch, F., Hege, U., 2001. Multiple shareholders and control contests. Unpublished manuscript.

Boehmer, E., 2000. Business groups, bank control, and large shareholders: An analysis of German takeovers. Journal of Financial Intermediation 9, 117–148.

Bolton, P., Von Thaden, E.-L., 1998. Blocks, liquidity and corporate control. Journal of Finance 53, 1–25.

Burkart, M., Gromb, D., Panunzi, F., 1997. Large shareholders, monitoring, and the value of the firm. Quarterly Journal of Economics 112, 693–728.

Burkart, M., Panunzi, F., Shleifer, A., 2003. Family firms. Journal of Finance 58, 2167–2202.
Claessens, S., Djankov, S., Fan, J., Lang, L., 2002. Disentangling the incentive and entrenchment effects of large shareholdings. Journal of Finance 57, 2741–2771.
Cronqvist, H., Nilsson, M., 2003. Agency costs of controlling minority shareholders. Journal of Financial and Quantitative Analysis 38, 695–719.
Faccio, M., Lang, L., Young, L., 2001. Dividends and expropriation. American Economic Review 91, 54–78.
Faccio, M., Lang, L., 2002. The ultimate ownership of Western European corporations. Journal of Financial Economics 65, 365–395.
Gomes, A., Novaes, W., 2001. Sharing of control as a corporate governance mechanism. PIER Working paper 01-029, University of Pennsylvania Law School.
Grossman, S., Hart, O., 1988. One share–one vote and the market for corporate control. Journal of Financial Economics 20, 175–202.
Harris, M., Raviv, A., 1988. Corporate governance: Voting rights and majority rules. Journal of Financial Economics 20, 203–236.
Hermalin, B.E., Weisbach, M.S., 1991. The effects of board composition and direct incentives on firm performance. Financial Management 20, 101–112.
Holderness, C., Sheehan, D., 1988. The role of majority shareholders in publicly held corporations: An exploratory analysis. Journal of Financial Economics 20, 317–346.
Karhu, K., Miettinen, K., Reinikainen, M., Wahlroos, J., 1998. Yhtiökokouskäytäntö. WSOY, Helsinki.
La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 1999. Corporate ownership around the world. Journal of Finance 54, 471–517.
La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 2002. Investor protection and corporate valuation. Journal of Finance 57, 1147–1170.
Lehman, E., Weigand, J., 2000. Does the governed corporation perform better? Governance structures and corporate performance in Germany. European Finance Review 4, 157–195.
McConnell, J., Servaes, H., 1990. Additional evidence on equity ownership and corporate value. Journal of Financial Economics 27, 595–612.
Milnor, J., Shapley, L., 1978. Values of large games II: Oceanic games. Mathematics of Operations Research 3, 290–307.
Nenova, T., 2003. The value of corporate votes and control benefits. Journal of Financial Economics 68, 325–351.
Pagano, M., Röell, A., 1998. The choice of stock ownership structure: Agency costs, monitoring, and the decision to go public. Quarterly Journal of Economics 113, 187–226.
Shleifer, A., Vishny, R., 1986. Large shareholders and corporate control. Journal of Political Economy 94, 461–488.
Shleifer, A., Vishny, R., 1997. A survey of corporate governance. Journal of Finance 52, 737–782.
Shleifer, A., Wolfenzon, D., 2002. Investor protection and equity markets. Journal of Financial Economics 66, 3–27.
Stulz, R., 1988. Managerial control of voting rights, financing policies and the market for corporate control. Journal of Financial Economics 20, 25–54.
Volpin, P., 2002. Governance with poor investor protection: Evidence from top executive turnover. Journal of Financial Economics 64, 61–90.
Winton, A., 1993. Limitation of liability and the ownership structure of the firm. Journal of Finance 48, 487–512.
Zwiebel, J., 1995. Block investment and partial benefits of corporate control. Review of Economic Studies 62, 161–185.