Multiple Blockholders: Good or Bad News*

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Abstract

This paper looks at the impact of dispersion in blockownership on firms' stock and debt valuation. Blockholdings by multiple blockholders is a widespread phenomenon in U.S. governance. It is not clear, however, whether dispersion in ownership among different blockholders is preferable to having a more concentrated ownership structure. We show in a theoretical model that dispersed ownership may be bad for firm value as different blockholders fail to sufficiently internalize all the negative external effects of firm value diversion. We test the implications of this empirically using a large dataset that combines blockholder information, shareholder rights information, debt ratings, and financial information of U.S. firms. We find that multiple blockholdings negatively affect Tobin's Q. The negative impact is larger for less concentrated blockownership, suggesting that a concentrated ownership structure is to be preferred on average. Results are robust to controlling for blockholder type as well as proxies for shareholder rights. Our empirical findings are also confirmed if we study the impact of ownership dispersion on firm debt ratings rather than Tobin's Q.

Key words: corporate governance, ownership structure, multiple blockholders, firm value.

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1 Introduction

Corporate governance refers to the set of mechanisms that direct and control management activities within companies. Besides formal (e.g., contracts and legal protection) and informal (e.g., reputation) arrangements, stakeholders may also rely on a large stakeholder (internal control), or a potential large instantaneous stakeholder (external control) to restrict management's discretionary power. Kang and Shivdasani (1995), for example, show that managers of poor performing Japanese firms run a greater risk to be replaced in the presence of large shareholders. Shleifer and Vishny (1997) suggest that good governance systems seem to combine some type of large stakeholder with legal protection of their rights and those of small investors.

A critical question is whether the combination of good shareholder rights with the presence of (several) large shareholders constitutes good governance from the point of view of all stakeholders. Some studies indicate that the beneficial impact of shareholders activism may be modest (Karpoff, Malatesta and Walking (1997)). In general, large shareholders may have difficulties to cover private costs associated with the provision of what essentially is a public good (monitoring). This then leads to a suboptimal level of activism from a social point of view (Shleifer and Vishny (1986), Admati, Fleiderer and Zechner (1994)). Moreover, shifting the balance of power towards one of the stakeholders of a company could enlarge agency conflicts among different stakeholders. Large shareholders might simply try to secure private benefits by misusing their increased power for preferential self-treatment at the expense of other stakeholders (LaPorta, Lopez-de-Silanes, Shleifer and Vishny (2002)). Empirical estimates by Barclay and Holderness (1989), Nenova (2003) and Dyck and Zingales (2004) confirm the possible existence of such private benefits of control.

The main interest of our paper is on the impact of concentrated versus dispersed blockholdership on firm value and debt quality. If blockholder presence produces positive externalities such as monitoring of management, a higher concentration of blockholdings allows shareholders to internalize more of the potential benefits. This provides a larger incentive to be actively involved. It also prevents possible free-riding problems in a multiple blockholder setting (Black (1990)). Instead of governance through voice, recent studies stress the potential importance of governance through exit in mitigating agency costs. Admati and Pfleiderer (2009) and Edmans (2009) indicate that prices might better reflect fudamental value as a result of informed trading by blockholders, inducing management to undertake value-enhancing activities. Edmans and Manso (2008) show that multiple blockholders have a larger, and as a result more credible incentive to trade ex-post. Dispersed blockholding could therefore be relatively more effective in terms of governance through exit.

When blockholder presence is negatively related to firm value, Maury and Pajuste (2005) indicate that the impact of dispersed versus concentrated block ownership is subject to two countervailing forces. On the one hand, all blockholders can form a coalition, share private benefits, and in effect act like a single large blockholder. On the other hand, only a subset of blockholders might be able and willing to extract private benefits, whilst the remaining blockholders simply try to prevent this through monitoring.

We emphasize in our theoretical model a third possible outcome. In a setting with multiple blockholders, an alternative option is that different blockholders try to pursue their own objectives independently. This can be due to the fact that blockholders may be unwilling or unable in practice to form the coalitions mentioned before. The lack of coalition formation may also result from a type of prisoner's dilemma: even if blockholders are more efficient in extracting private benefits in a coordinated effort (e.g., a larger board representation), they could be better off when simply not hampering each other's attempts to extract private benefits independently. Such uncoordinated actions may be even more detrimental for company value.

Empirical evidence on the effect of multiple blockholders on firm value is limited, and virtually all non-U.S. related, see for example Faccio, Lang and Young (2001) and Volpin (2002). Differences in institutional settings and the (resulting) differences in ownership structure itself make comparisons across countries difficult, if not impossible (LaPorta, Lopez-de-Silanes and Shleifer (1999)). Though majority ownership by a single large blockholder is not common, the U.S. blockholder ownership data reveals that the presence of multiple blockholders, especially outside blockholders, is a widespread phenomenon.[1]

We contribute to the empirical literature on corporate governance by investigating the relation between concentration of blockholders and firm value. Our final data set consist of approximately 3,500 firm year observations from 1996-2001. We proxy for blockholder concentration by measures related to the Herfindahl index. In addition to blockholder type, the impact

[1]See also Holderness (2009).

of blockholder structure on firm value may interact with remaining shareholder rights, including those of small shareholders. To proxy for these rights, we include governance provisions in our analysis based on the constituents of the governance index by Gompers, Ishii and Metrick (2003). We use Tobin's Q as a proxy for firm value in all our regressions.

Our empirical findings reveal a negative relation between blockholding and Tobin's Q. When looking at the interaction with blockholder concentration, low concentration is more detrimental to firm value than high concentration. The results are robust to a number of variations in the design. Given the alleged importance of outside blockholders for monitoring, we also concentrate on outside blockholdings only. Again, we find a strong negative association between outside blockholding and Q. Including shareholder rights proxies in the regressions does not change the results. Compromising on shareholder rights negatively impacts Tobin's Q, but we find no significant, strong interaction effect of (outside) blockholder presence and shareholder rights.

Blockholder structure may, however, not only impact firm value, but also have a direct redistributional impact on the claim values of the firm. Thus, we investigate whether concentration of block ownership not only affects firm value, but also the value of separate debt and equity claims. We concentrate on the firms' credit ratings as a proxy of debt quality. Standard & Poor's (2005) claim that governance issues are regularly examined as part of the credit ratings process. They note that the existence of more than one owner may lead to conflicts of control. Several other studies have studied the relation between corporate governance and credit ratings, though none of them explicitly looked at blockholder concentration. Bhoraj and Sengupta (2003) and Ashbaugh-Skaife, Collins and LaFond (2006) indicate that bond ratings may be positively related to the percentage of shares held by institutional investors. While Bhoraj and Sengupta (2003) find a negative relation between the percentage of shares held by institutional blockholders and corporate bond ratings, Ashbaugh-Skaife et al. (2006) find a negative relation between the number of blockholders and ratings. Our empirical findings confirm previous findings and indicate that, whilst the presence and percentage of shares held by blockholders is important, blockholder concentration itself is relevant as well. We show that dispersed block ownership is correlated with lower rating assignments.

The remainder of this paper is organized as follows. Section 2 presents our theoretical set-up. Section 3 describes the data. Section 4 discusses our empirical results. Finally, Section 5 concludes.

2 The Model

The presence of large shareholders can have either a positive or negative effect on firm value. The *shared benefits hypothesis* suggests that a large shareholder empowered with sufficient shareholder rights is beneficial to all the company's stakeholders as he mitigates the agency problem between management and stakeholders as a group. Empirical studies on the role of shareholder activism indicate its role is modest (Karpoff, Malatesta and Walking (1996)). The *private benefits hypothesis*, by contrast, states that large shareholders can be detrimental to firm value. If blockholders pursue their own objectives, they can expropriate value from other stakeholders, such as minority shareholders, debtholders, employees, and customers. The classic agency problem between management and shareholders is replaced by an agency problem between powerful blockholders and other stakeholders of the firm (LaPorta et al. (2002)).

Empirical evidence on the possible magnitude of potential private benefits of control is sparse. Private benefit extraction is difficult to measure. Dyck and Zingales (2004) measure these benefits using an event study methodology. Their estimates range from -4 percent in Japan to +65 percent in Brazil, while their U.S. estimate equals 2.7 percent. The large variation in the estimates reveal that the value of a given block depends on other factors as well, like the company's ownership structure (e.g. number of blockholders) and the presence or absence of certain governance provisions (i.e. shareholder rights).

In this section, we use the framework of LaPorta et al. (2002) and Maury and Pajuste (2005) to study the possible effects of multiple blockholders on firm value. Let firm value be denoted by I and assume there are two blockholders. Define α_1 as the share in the residual claim held by the blockholder 1. To ensure that value diversion is inefficient, the blockholder bears a cost $c_1(s, k, \cdot)I$ when a share s is extracted (i.e. the *stealing* case). This cost explicitly depends on s and k. The variable k refers to shareholder rights, where larger values of k represent stronger shareholder rights. We assume $c_{1s} > 0$ and $c_{1ss} > 0$, such that it becomes increasingly more expensive to engage in private benefit extraction. We also assume $c_{1k} < 0$ and $c_{1ks} < 0$, implying the marginal cost of stealing decreases when shareholder rights increase.

Besides blockholders interested in private benefit extraction, we allow for a blockholder not engaged in resource diversion. He holds a share α_2 in the residual claim and may want to prevent private benefit extraction by actively monitoring the actions of the first blockholder. If he does, we assume lost resources are fully recovered with probability p. We assume that monitoring can be done without any costs. Thus, the values of both blocks are given by

$$\begin{aligned} V_1 &= (1-p)(\alpha_1\phi_s I + sI - c_1(s,k,\cdot)I) + p(\alpha_1\phi_{ns}I - c_1(s,k,\cdot)I) \qquad (1) \\ &\approx (1-p)(\alpha_1(\phi_{ns} - \delta s)I + sI - c_1(s,k,\cdot)I) + p(\alpha_1\phi_{ns}I - c_1(s,k,\cdot)I) \\ &\approx (\alpha_1(\phi_{ns} - q\delta s) + qs - c_1(s,k,\cdot))I, \end{aligned}$$

and

$$V_2 \approx \alpha_2(\phi_{ns} - q\delta s)I, \qquad (2)$$

where $q = 1-p$, and where ϕ_s and ϕ_{ns} denote equity as a fraction of total company value in respectively the stealing and non-stealing cases. The second (first) term in the first line of (1) represents the payoff when lost resources are (not) fully recovered. The second line of (1) uses the contingent claims setting of Merton (1974), denoting the change in company value as the fraction diverted, s, times the equity delta, δ. We can interpret the term preceding I in the last line as the *effective share* owned by the blockholder. We assume that the purpose of private benefit extraction is to maximize this effective share, possibly at the expense of other stakeholders.

Total firm value equals

$$V_{Firm} = q(1-s)I + pI. \qquad (3)$$

A larger s thus leads to a lower firm value. Solving the first order condition (foc) of V_1 with respect to s, we obtain

$$c_{1s}(s,k,\cdot) = (1-\delta\alpha_1)q. \qquad (4)$$

Differentiating this once more with respect to α, k, and p, we get

$$\begin{aligned} \frac{ds^*}{d\alpha_1} &= -\frac{(1-p)\delta}{c_{1ss}(s^*,k,\cdot)} < 0, \qquad (5) \\ \frac{ds^*}{dk} &= -\frac{c_{1ks}(s^*,k,\cdot)}{c_{1ss}(s^*,k,\cdot)} > 0, \qquad (6) \\ \frac{ds^*}{dp} &= -\frac{(1-\delta\alpha_1)}{c_{1ss}(s^*,k,\cdot)} < 0. \qquad (7) \end{aligned}$$

Consider initially the case of one blockholder who, by definition, is not monitored ($p = 0$). The first derivative reveals that a higher residual claim α_1 makes the blockholder internalize more of the value diversion effects, thus lowering his incentives to engage in value diversion. The second inequality states that an improvement in shareholder rights k, which we assume predominantly results in increased power of active shareholders, leads to better opportunities to divert resources. Finally, allowing for a second monitoring blockholder as well, a higher probability of detection lowers the optimal level of value diversion.

In a setting with two blockholders, we can distinguish three different cases: (i) blockholders collude to divert resources, maximizing their combined effective ownership stake; (ii) one blockholder diverts, while the other tries to prevent this through monitoring; (iii) both blockholders divert independently. Maury and Pajuste (2004, 2005) restrict their attention to cases (i) and (ii).

Though collusion is an option, it may be hard to achieve in practice. In addition, it is not a priori clear why it would be economically uninteresting for blockholders to divert resources independently, and to reciprocally tolerate resource diversion by the other party. We therefore also investigate alternative (iii). In case (iii), the objective function for blockholder 1 equals

$$V_1^{Ind} = (\alpha_1(\phi_{ns} - \delta(s_1 + s_2)) + s_1 - c_1(s_1, k, \cdot))I, \tag{8}$$

where Ind denotes independent diversion. Interchanging subscripts 1 and 2 we have a similar expression for blockholder 2. Both equations can be solved jointly to obtain the optimal levels of diversion.

In line with Maury and Pajuste (2004), we can derive conditions that have to be satisfied for a collusion to be sustainable. In our case, the conditions read

$$\alpha_1(\phi_{ns} - \delta s_c) + \lambda_1(s_c - c_c(s_c, k, \cdot)) \geq \alpha_1(\phi_{ns} - q\delta s_m) + q s_m - c_1(s_m, k, \cdot) \tag{9}$$

$$\alpha_1(\phi_{ns} - \delta s_c) + \lambda_1(s_c - c_c(s_c, k, \cdot)) \geq \alpha_1(\phi_{ns} - \delta(s_{1,Ind} + s_{2,Ind})) + s_{1,Ind} - c_1(s_{1,Ind}, k, \cdot) \tag{10}$$

$$\alpha_2(\phi_{ns} - \delta s_c) + (1 - \lambda_1)(s_c - c_c(s_c, k, \cdot)) \geq \alpha_2(\phi_{ns} - q\delta s_m) \tag{11}$$

$$\alpha_2(\phi_{ns} - \delta s_c) + (1 - \lambda_1)(s_c - c_c(s_c, k, \cdot)) \geq \alpha_2(\phi_{ns} - \delta(s_{1,Ind} + s_{2,Ind})) + s_{2,Ind} - c_2(s_{2,Ind}, k, \cdot) \tag{12}$$

where c and m refer to collusion and monitoring case, respectively, and where λ_1 denotes the share of net private benefits accruing to blockholder 1. The conditions indicate that sustainable collusion can only arise if each blockholder's effective share is larger under collusion than in both the monitoring and the independent stealing case.

To obtain more insight in the properties of these conditions, we consider an example with quadratic cost functions $c_i(s, \cdot) = \theta_i s^2$. It is clear that the split λ_1 is a key determinant of the sustainability (and possible dominance) of a collusion outcome. If λ_1 becomes too low, blockholder 1 may be better off by stealing independently, or by taking the risk of being monitored. Vice versa, if λ_1 is too large, blockholder 2 may be better off by monitoring or by stealing independently.

For illustrative purposes we take, $\phi_{ns} = 0.25, \delta = 0.58$ [2], $\theta_2 = 23, \theta_1 = 13, \theta_c = 10, \alpha_1 = 0.2, \alpha_2 = 0.1$. In particular, we assume that larger blocks are more efficient in resource diversion.

Considering monitoring versus collusion first, we subsitute the FOCs, $s_c^* = \frac{1-\delta\alpha_c}{2\theta_c}$ and $s_m^* = \frac{(1-\delta\alpha_1)q}{2\theta_1}$ into equations (9) and (11) to get upper and lower bounds on λ_1 for each level of monitoring efficiency, p. Like Maury and Pajuste (2004), at each level p there exist subdivisions, λ_1, such that monitoring is dominated by collusion.

The regions between the two upper (lower) curved lines of Figure I show the effective ownership shares obtained by the largest (smallest) blockholder, using these possible λ_1 at different levels of monitoring efficiency, p. Logically, less efficiency in monitoring (i.e. lower p) decreases the potential private benefits share obtained by the small, and potentially monitoring, blockholder when both blockholders decide to collude, leading to a lower effective ownership stake.

Insert Figure I

The hashed straight lines in Figure I denote the effective ownership shares obtained by substituting the optimal levels related to independent diversion, $s_{1,Ind}^*$ and $s_{2,Ind}^*$ into the right hand side of equations (10) and (12).

Now suppose, for example, that the small blockholder is reasonably good at monitoring the large blockholder. Offering a share in private benefits to the

[2] These levels of ϕ_{ns} and δ can, for example, be obtained using the Black and Scholes model with company value 100, zero coupon debt value 150, risk free rate 0.05, σ 0.35 and t equal to 5.

small blockholder in the A region would not be feasible, for both blockholders obtain a larger effective share when they divert resources independently. On the other hand, at B the small blockholder would be better off than independent stealing. However, the large blockholder will be worse off, so it would not be optimal to offer subdivisions in the B region. The large blockholder would rather suggest a λ_1 in region C. Unless he is powerfull enough to prevent independent diversion by the small blockholder altogether, an important assumption which would else restrict us to the monitoring versus collusion setting, the small blockholder will rather divert independently.

The point here of course being that though the summed effective shares in the collusion setting, 0.092, is larger than their summed initial ownership stakes, 0.075, their combined effective share in the independent stealing case is even larger, 0.095. As a result, one of the blockholders must be made worse off when colluding. What is worse from the point of view of other stakeholders, the optimally diverted share in the collusion setting, 0.041, is smaller than the summed diverted shares in the independent diversion case, 0.055.

In sum, dividing a specific percentage of shares amongst multiple blockholders can be more detrimental in terms of firm value for several reasons. Looking at the right hand side of (4), if one blockholder diverts resources whilst the other monitors, the negative effect of a relatively small ownership stake could dominate the positive monitoring effect. However, following Maury and Pajuste (2005), if the small blockholder can only choose between monitoring and colluding, the blockholders may well decide to collude. In that case the level of diversion is similar to the single large blockholder case.

On the other hand, coordinating stakeholders' actions by means of a coalition could in itself be quite demanding. Moreover, collusion might not be sustainable to start with. Our model indicates that it may simply be more advantageous to pursue ones own objectives independently, even when it is easier to divert resources combinedly.

In our example we made the plausible assumption that the efficiency to divert resources increases in ownership stakes. An increase in α would then result in more diversion (i.e. increasing efficiency), as well as less diversion (i.e. internalizing the externality). When efficiency increases in α, but at a decreasing rate, the locus in Figure II, depicting optimal levels of diversion, s^*, at different ownership stakes may even bend backwards. As a result, the relative distribution of ownership stakes could be quite relevant as well. For example, considering ownership stakes α_1 and α_2, increasing α_1 by a similar amount as decreasing α_2 might have a significant effect on the total level of diverted resources when blockholders divert resources independently.

Insert Figure II

3 Data

We combine data from several sources. Standard & Poor's issuer ratings are obtained from the June 2005 Standard & Poor's CREDITPRO 7.0 database. Firm-specific data are taken from COMPUSTAT, and daily stock data are obtained from the Center for Research in Security Prices (CRSP). To obtain data on governance provisions and stock ownership, we use additional data sources described further below. In the end, matching the different data sources leaves us with between 3,315 and 3,654 firm year observations, depending on whether we use credit ratings or Tobin's Q as the dependent variable. Table I provides the variable descriptions.

Insert Table I

To proxy for shareholder rights we use the indicators on the presence or absence of individual governance provisions as constructed by Gompers et al. (2003). Their GIM index is based on publications by the Investor Responsibility Research Center (IRRC). GIM is constructed using all 22 charter provisions, bylaw provisions, and other firm-level rules, plus possible coverage under six state takeover laws, as present in the IRRC data. The data are available for July 1995, February 1998, November 1999, and January 2002. To obtain values in between reporting dates we interpolate, assuming provisions do not change until the IRRC publishes new data. To check the sensitivity of our results, we perform robustness checks with two alternative governance indices. Our first alternative index, GIB, is taken from Bebchuk, Cohen and Ferrell (2005). Based on their analysis of the impact of different governance provisions and on their discussions with lawyers in leading corporate law firms, they consider only a subset of six governance provisions. Our second alternative index is the anti-takeover index (ATI) of Cremers, Nair and Wei (2007). ATI is constructed out of four rather than 22 governance provisions and focuses on the ability of management to obstruct or delay the direct interference by shareholders.

The most widely used source for ownership data is the *Compact Disclosure* (CD) database of Standard and Poor's. Dlugosz, Fahlenbrach, Gompers and Metrick (2006) show that available data on blockholding from the CD database has many mistakes and biases such as double counting. Their cleaned database focuses on companies covered by the Investor Responsibility Research Center (IRRC) and covers the period 1996-2001.[3]

Blockholders are shareholders owning 5% or more of a company's stock. Such blockholders are required to file their ownership stake at the SEC. The CD database allows us to distinguish between different types of shareholders: (1) Outside blockholders; (2) Employee Stock Ownership Plans (ESOPs); (3) Officers; (4) Directors; and (5) Affiliated entities. Category 1 includes all blockholders that are not part of one of the other categories. Category 2 represents the total number of shares held by ESOPs and, by definition, does not include employee shares held through non-ESOP retirement plans. Category 3 includes officers, even when they are also directors. Category 4 refers to non-officer directors. Finally, category 5 represents any blockholder (e.g. an individual, company or trust) whose voting outcome is partially influenced, but not completely controlled, by an officer or director of the company. Categories 2 to 5 will be referred to as inside blockholders. The CD database gives type as well as percentages of shares held by individual blockholders.

Averaging over years, more than 80 percent of the companies within our sample has at least one blockholder. Moreover, 75 percent actually has at least one outside blockholder, and this fraction gradually increases over time.[4] If we look at the percentage of shares held by different blockholder types, we observe that affiliated shareholdings per firm can be relatively large, especially when we compare this to other inside blockholders. Most companies in our sample either have one or no inside blockholder, possibly complemented by some outside blockholding. By contrast, outside blockholders are often paired by one or more outsiders. This is reflected in the average number of outside blockholders per firm, ranging from 2.1 to 2.4.

Table II reports the distribution of blockholder types using all observations. In the first line of the table we see that for most companies outside

[3]The blockholder dataset excludes companies with multiple classes of stock. This immediately implies that a distinction between voting and cash flow rights becomes less relevant.

[4]Cremers et al. (2007) note that around 63 percent of the companies within their dataset, stretching from 1991 to 1997, have at least one *institutional* blockholder.

blockholders are the most prevalent. The lower part of the table gives an overview of successor types, conditioned on largest blockholder type. For example, the last column shows that, given that the largest blockholder is an outsider, 22.9% of the observations have no other blockholder, 9.4% have a second largest inside blockholder, and 67.7% have a second largest outside blockholder. Conditioning on the same event reveals that, when there is a third blockholder, it will most likely be an outsider as well, 42.2%.

Insert Table II

Our primary focus in this paper is on the dispersion of blockholdings. One way to measure this is to consider the number of blockholders per company. This, however, discards the effect of the shareholding distribution itself. For example, a total ownership stake of 40% held by two blockholders of equal size (20%-20%) can have very different implications than a 35%-5% distribution. The latter resembles much more a case with a single dominant blockholder than one with multiple (equally powerful) blockholders.

To also account for the block sizes held by different blockholders, we use the Herfindahl index. This index is a standard summary statistic of industry concentration in the literature on industrial organization, see for example Tirole (2003). We use a scaled version of the index defined as

$$Herfindahl = \frac{[(\%Block1) + (\%Block2) + \ldots + (\%Block5)]^2}{[(\%Block1)^2 + (\%Block2)^2 + \ldots + (\%Block5)^2]}. \qquad (13)$$

Thus, if there is just 1 blockholder, $Herfindahl = 1$. If there are 5 blockholders with equal shareholdings, $Herfindahl = 5$. If by contrast one out of 5 blockholder holds, for example, 30% of the company's shares, while the others hold 5% each, $Herfindahl = 2.5$, which is considerably smaller than 5.

We also experimented with alternative concentration measures, including logarithmic transformations and measures based on differences in block sizes, but our results remain qualitatively robust. We therefore do not present the full results based on these alternative measures in this paper, but only briefly comment on them when discussing the empirical results.

4 Empirical Results

4.1 Firm Value: Tobin's Q

Our sample is an unbalanced panel. To determine the effect of ownership structure and shareholder rights on Tobin's Q, we use a random effect model specification, where we include time dummies as well as industry dummies based on the 2-digit Standard Industrial Classification (SIC) codes.

Besides control variables, the first model in Table III includes both GIM as a measure of shareholder rights as well as the ownership stakes held by different blockholder types.

Insert Table III

Table III indicates that the control variables enter with their expected sign, though the coefficients on age, capital intensity and capital expenditure lack statistical significance. In particular, we would expect higher profitability, Delaware incorporation, and a higher sensitivity to general market movements, which will on average lead to higher returns, to be positively related to Tobin's Q. Firm age, size, leverage and asset tangibility tend to be negatively related to Q. Though the coefficient is negative, insignificance of firm age may be due to the fact that firm maturity is already captured by the size variable. A relatively large debt burden can be negatively (e.g. riskiness, debt overhang) or positively (e.g disciplining role) related to firm value. In accordance with the results by Demsetz and Villalonga (2001) and Maury and Pajuste (2005) we obtain a significant negative relation between Tobin's Q and leverage. Firms with high asset tangibility presumably have a lower proportion of intangible assets (goodwill, human capital), which will have a negative impact on Q. Finally, though capital expenditure may be negatively related to Q (i.e. in line with the previous argument), it could as well be an important indication of investment opportunities (Daines (2001)), leading to a positive impact on Q.

Including GIB and ATI instead of GIM we find that the coefficient on ATI is not only insignificant; at -0.03 it is quite small as well given the four point scale. All indices point in the same direction though. Compromising on shareholder rights has a negative impact on Tobin's Q, which is in line with the result of Gompers et al. (2003). Moreover, inclusion of GIB confirms the finding of Bebchuk et al. (2005). Their subindex of six governance provisions is predominantly responsible for this negative association.

Looking at blockholding, the percentage of shares held by directors seems to be the only statistically significant positive association obtained, though it is only significant at the 10 percent level. Most frequently there appears to be a negative association between blockholder ownership stakes and Tobin's Q. For example, a 10 percent increase in outside blockholding decreases Q by 0.05.

The negative association between Tobin's Q and both ESOPs and outside blockholding remains statistically significant if we include dummy variables in our equation, indicating whether a particular blockholder type is present within a specific company. The coefficients on affiliated entities and directors become insignificant.

Though not reported, including both the percentage of shares held as well as the number of blockholders by blockholder type yields no significant changes as compared with the dummy specification in case of inside blockholders. This is not surprising since inside blockholders most frequently are on their own when they are present. However, the coefficient on the total percentage of shares held by outsiders decreases to -0.20 and becomes insignificant, whilst the coefficient on the number of outside blockholders, -0.03, turns out to be significant at the 5 percent level. This already suggests that it might be highly relevant whether and to what extent a specific percentage of shares is spread out across blockholders.

In the following our main interest centers on blockholder concentration. We therefore include the suggested Herfindahl concentration measure. Confining ourselves to shareholders owning more than 5 percent of a company's shares, it is clear that there can only be one blockholder when total blockholding is less than 10 percent. In that instance blockholding stakes turn out to be less than 7.5 percent in almost two-third of the cases considered. Furthermore, it might be less reasonable to compare blockholders with combined shareholdings of 15 percent with blockholders that together hold 40 percent of a company's shares. As a result we construct three brackets: small (483 cases), medium, (1,262 cases), and large (1,374 cases), with boundaries at the 10 and 25 percentile.

Model (3) in Table III confirms the broad negative relation between percentage of shares held by blockholders and Tobin's Q. Controlling for aggregate blockholding size, the next specification, Model (4), indicates that the coefficients on the Herfindahl variables are negative and significant at the 1 percent level. The coefficients on the size variables become both less negative and less significant. This suggest that lower blockholder concentration would be relatively more detrimental in terms of firm value. Though not reported, this tendency is confirmed if we look at differences between stakes held by different blockholders.[5] The latter measure decreases when blockholder concentration gets lower. We indeed find positive significant coefficients when we use this alternative measure.

If we look at the blockholder type coefficients, and compare these with the ones obtained in (2), we observe that the coefficients may change significantly, both in magnitude and statistical significance, predominantly with respect to outside blockholding. Given the emphasis on potential loss of value due to the presence of blockholders, the consistent strong negative impact of outsiders, outside blockholder dominance, and a potential different impact across blockholder types, it might be more appropriate to confine ourselves to outside blockholder concentration.

Our previous estimation procedure is repeated in models (5) and (6) of Table III, where we replace the total percentage of shares held by all blockholders by the total percentage of shares held by outside blockholders, whilst the concentration measure now focuses exclusively on the five largest outside blockholders. The estimation results are very much in line with the ones obtained before.

Given the negative association between Tobin's Q and blockholding, the negative coefficient on GIM seems to be inconsistent with the hypothesis that shareholder rights would predominantly benefit large, and supposedly active, shareholders. In that case, we would rather expect a positive relation between shareholder right reductions and Q. On the other hand, in line with LaPorta et al. (2002), reduced shareholder rights would also compromise on the rights of other, potentially monitoring, shareholders, making them more vulnerable to private benefit extraction.

To determine whether there are possible interaction effects we add in a next step terms that interact shareholder rights with (outside) blockholder presence. Given the ordinal scale of measurement we try to discern as good as possible between companies that, in a relative sense, do not compromise much on shareholder rights and companies with a relatively high level of governance provisions. In case of GIM we differentiate between companies with an index value equal to and below 10, the median of GIM, versus those with an index value above 10. Model (7) indicates that the coefficients are

[5] In particular, $[(\%Block1 - \%Block2)^2 + (\%Block2 - \%Block3)^2 + \ldots + (\%Block5 - \%Block4)]^2$ scaled by the sum of the equity stakes squared.

positive which would indeed be in line with the findings by LaPorta et al. (2002).

However, using GBI or ATI in a similar way yields no consistent results. For it should at least be difficult to observe, it could well be that private benefit extraction relies more on informal than formal arrangements, such that we will not necessarily obtain a clear association between the level of governance provisions and the presence of blockholders.

The final model specification (8) of Table III includes blockholder concentration given the size of the largest (outside) blockholder, where we again use brackets to account for size differences.[6] The estimates on blockholder concentration gradually become smaller and less significant. Given the relatively small size of the last bracket the latter finding is not surprising. The association with Tobin's Q itself is consistent with the result obtained before. Instead of a positive relation (e.g. monitoring, contestability of power) less blockholder concentration appears to be negatively related to Q.

4.2 Debt: Corporate Credit Ratings

To determine whether and to what extent the firm's ownership structure and shareholder rights affect debt holders we look at the impact of these governance elements on corporate ratings as well.

In particular, ownership structure and shareholder rights represent 2 out of 4 dimensions of the corporarate governance score (CGS) of Standard and Poor's (2002). CGSs are developed to assess corporate governance practices and policies, and the extent to which they serve the interests of the company's financial stakeholders. Standard & Poor's (2005) states that though the CGS is geared towards the equity investor's perspective, governance issues are regularly examined as part of the credit rating methodology.

Focusing on corporate credit ratings instead of Tobin's Q we change to an ordered repons framework. We will still use a random effect specification. As a result we estimate[7]:

[6] 10% is close to the median, whilst 15% is close to the 90% percentile with respect to the size of the largest outside blockholder in both the Tobin's Q and credit rating data sets.

[7] The likelihood function can be obtained along the lines of, for example, Greene (2002), pp. 689-694, who gives a derivation in a binary respons setting.

$$\sum_i \ln \int_{-\infty}^{\infty} \left[\Pi_{t=1}^{T_i} \left\{F(\gamma_{y_{it}} - x_{it}^T\beta - \sigma_u u_i) - F(\gamma_{y_{it}-1} - x_{it}^T\beta - \sigma_u u_i)\right\}^{c_{i,t}}\right] f(u_i)du_i \quad (14)$$

by the method of maximum simulated likelihood, where $m \, \epsilon \, \{1, 2, ..., M\}$, $\gamma_0 = -\infty$ and $\gamma_M = \infty$, and $c_{i,t}$ equals 1 if firm i is in the sample in period t. For the error terms, u_i, we use the standard normal distribution.[8]

Table IV shows that the control variables enter with their expected sign. In particular, higher (market) leverage, negative earnings, the presence of subordinated debt as well as a higher exposure to (systematic) risk, as captured by beta, decreases a company's credit rating. On the other hand, a larger size, high past profitability and a higher interest coverage ratio increases a company's debt rating. As expected, the marginal impact of a higher interest coverage ratio decreases. Whilst the coefficient on the first bracket shows the largest positive impact, the sign of the coefficient related to the last bracket actually turns out to be small and insignificant.

Insert Table IV

The coefficient on current profitability has the opposite sign of what we expected. However, including it as a stand-alone variable yields a statistically significant positive impact. The negative coefficient is probably caused by the inclusion of retained earnings, which has a strong and highly significant positive impact on ratings. D_{sub} gives an indication of the quality of a company's debt structure. For example, existing debt holders may have forced (e.g. covenants) the company to issue subordinated debt in the past to prevent possible negative wealth redistributions. Moreover, the mere existence of subordinated debt may make the issuance of claims that have a higher priority in case of default more difficult. In general, a company without subordinated debt might thus have better refinancing possibilities, which could explain the negative coefficient obtained.

Consistent with Ashbaugh-Skaife et al. (2006) the estimated coefficient on GIM reveals that a higher governance index is associated with higher ratings. In fact, though not reported, the coefficients on all governance indices enter with a positive sign. Interestingly, like ATI, the impact of GIB turns out to be insignificant now, whilst the coefficient on the index constructed out

[8]Using, for example, the logistic distribution gives almost identical results.

of governance provisions not included in GIB is still significant at the one percent level. Overall, it seems that rating agencies are foremostly concerned about shifts in balance of power towards shareholders, which might be proxied best by the total set of governance provisions. Given the positive coefficients, we may conclude that compromising on shareholder rights has a positive impact on corporate credit ratings.

Higher blockholding is without exception negatively related to debt ratings. Including ownership dummies instead of shareholdings in model (2), Table IV indicates that the negative relation between ESOPs, directors and ratings is weak and insignificant, which is in line with the low to no significance obtained in model (1). The empirical distribution of shares held by ESOPs and directors looks quite similar to that of officers. A significant difference in empirical distributions therefore does not seem to be a plausible explanation of the lack of statistical significance with respect to the total percentage of shares held in the former vis-à-vis the latter case.

Estimation error may be related to two broad factors. Given the strong negative impact on other blockholdings, the presence of inside blockholders like ESOPs and directors may, depending on circumstances, serve as a countervailing force against possible expropriation of debt value by powerful shareholders. Gordon and Pound (1993), for example, examine underlying determinants of voting outcomes on shareholder-sponsored proposals to change corporate governance structures. Whilst outside blockholders tend to support shareholder-proposed initiatives, inside blockholders on average strategically align with management. Relatedly, Shivdasani (1993) shows that shareholder blocks over which managers are likely to excercise some voting control, as well as equity ownership by CEOs themselves, turn out to have a significant negative impact on the probability of receiving a hostile takeover bid. The presence of other blockholders significantly increases this probability.

On the other hand, powerful inside blockholding may well lead to entrenchment. For instance, supermajority provisions adopted by the company, or control share acquisition laws at the state level, mandate that hostile takeover offers resisted by the firm's board must be approved by a particularly large percentage of shares, typically 66.7, 75 or 85 percent. As a result, a relatively small ownership block may effectively have veto power as far as transfers of control are concerned. Indeed, Gordon and Pound (1990) show that ESOP initiation in the presence of takeover pressure, as well as ESOPs that transferred voting control away from outside shareholders towards insiders or insider aligned groups, have a negative impact on shareholder wealth.

We document that when ESOPs, or other insider aligned blockholders, strengthen entrenchment of existing management, both shareholders and bondholders may be worse off. However, if their presence partially alleviates a potential conflict of interest between debtholders and large shareholders, their presence could be beneficial from the point of view of debtholders.[9] Such countervailing forces may well explain the large confidence bounds obtained. Overall, though it is convenient to refer to inside and outside blockholders, the estimation results on Tobin's Q and credit ratings show that the constituent blockholder types cannot be treated as one of a kind.

Not reported, including both the number of outside blockholders as well as the percentage of shares held by them, reveals that the negative effect of outside blockholding is predominanlty picked up by the former variable, with the latter becoming much smaller, -0.80, and insignificant. Moreover, whilst the average number of outside blockholders given their presence ranges from 2.1 to 2.4, the coefficient related to the number of outside blockholders itself is significant and more than 4 times smaller than the dummy specification with -0.14.

Model (3) confirms the negative relation between the percentage of shares held by blockholders and ratings. Consistent with the Tobin's Q regressions of Table III, model (4) in Table IV indeed shows that less blockholder concentration, leading to a higher value of the Herfindahl index, tends to be negatively related to credit ratings. The coefficient on the medium bracket is relatively small and lacks significance though.

Given the differences in blockholder type coefficients, in particular on outside blockholding, and the dominance of outside blockholders, the remaining models of Table IV turn to specifications restricted to outside blockholding. Model (5) confirms the relatively strong negative association between outside blockholding and ratings. The interaction terms of model (6) reveals that at least part of this negative association can be ascribed to blockholder concentration, with the magnitude of the medium bracket increasing both in magnitude and significance as compared with model (4).

Looking alternatively at differences between blockholder sizes[10] compro-

[9]For example, Asquith and Wizman (1990) and Warga and Welch (1993) show that, whilst shareholders may be better off, bondholders potentially experience a significant loss in value following leveraged buyout (LBO) transactions, depending on bond type (e.g. covenants, rating, maturity).

[10]See footnote 5.

mises on statistical significance (not reported). However, coefficients point consistently in the same direction. Less blockholder concentration seems to be relatively more detrimental.

Though results on blockholder concentration point in the same direction, the impact of shareholder rights turns out to be negatively related to Tobin's Q, whilst they are positively related to credit ratings. In model (7) we once more include terms that interact (outside) blockholder presence with a variable indicating whether a company, in a relative sense, does not compromise much on shareholder rights (i.e. GIM lower than or equal to 10). A negative relation between debt ratings and shareholder rights might strenghten a negative association between blockholders and ratings, or vice versa. The equation shows that the estimated coefficients indeed are consistently negative, but the effect turns out to be only (just) significant in the medium bracket region. The coefficient on GIM itself hardly changes, and remains significant.

Using GIB instead, with a cut-off point at 2, yields insignificant results. Interestingly, in case of ATI, with a cut-off point at 1, we find significant negative effects at the medium and large brackets. For ATI can be considered as a more narrow proxy of a company's takeover vulnerability, the complementarity of shareholder control and takeover vulnerability is consistent with the theoretical model of Shleifer and Vishny (1986), which shows that large shareholders more easily facilitate changes in control. From an empirical point of view this finding is somewhat in line with Cremers et al. (2007), who stress the importance of interaction between the magnitude of ATI and the presence of institutional blockholders. Using interaction with GIM, GIB or ATI as an index yields no consistent effects though.

Conditioning on blockholder concentration given the size of the largest (outside) blockholder in the last equation Model (8) confirms the negative relation between blockholder concentration and ratings.

5 Conclusion

This paper determines the effect of a firm's ownership structure, in particular the dispersion in blockholdings, on firms' stock and debt valuation. Though there are some differences between blockholder types, our dominant result is that we obtain a negative relation between blockholding and Tobin's Q. At least part of this negative association can be attributed to blockholder dispersion. The results are robust to a variety of model specifications.

The results also remain qualitatively similar if we consider the impact of blockholder concentration and shareholder rights on debt holders by using corporate credit ratings as the dependent variable. Blockholdings are negatively related to credit ratings, with a relatively larger negative impact when block dispersion is higher. In contrast to the result for Q, shareholder rights are negatively related to ratings. This suggests that a shift in balance of power towards shareholders is considered as a negative signal by credit rating agencies. Just like for Tobin's Q, we find no clear interaction effects between blockholder presence and governance provisions.

A negative impact of blockholder presence suggests there may be room for private benefits of control, possibly at the expense of other stakeholders. Though there may be competing explanations, our theoretical model and empirical results show that less blockholder concentration might aggravate this problem in two ways. First, the smaller ownership stake of blockholders in control enhances their failure to internalize negative externalities. This negative effect may be stronger than the opposite positive effect of monitoring by blockholders that are not in control. Secondly, even if blockholders are aware of their mutual incentives to divert resources, they might have no economic incentive to obstruct each others attempt to extract private benefits. This may make blockholders better off compared to the monitoring or collusion case, while the combined negative impact on firm value may be larger.

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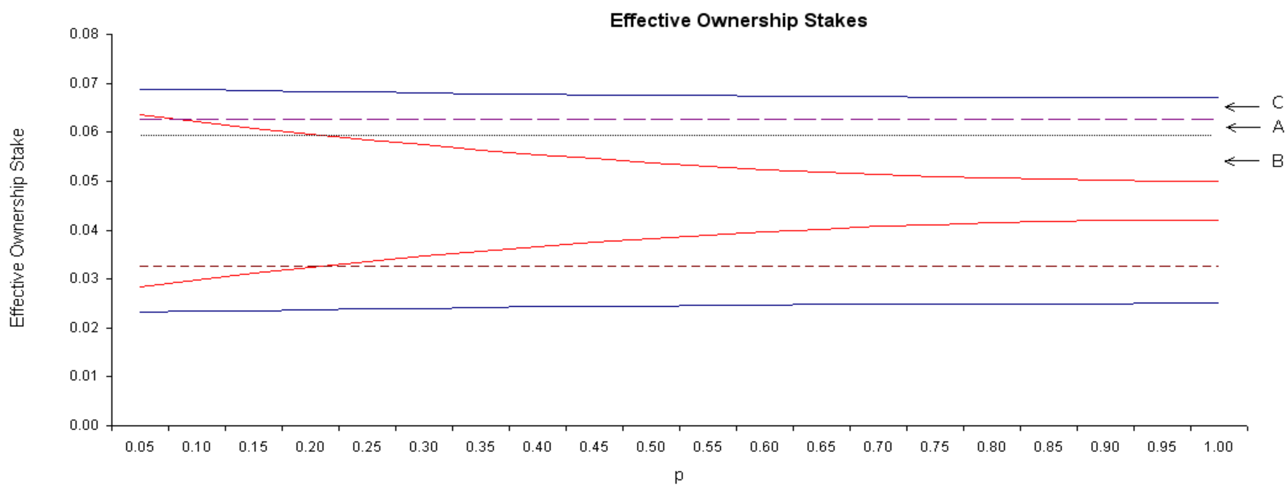
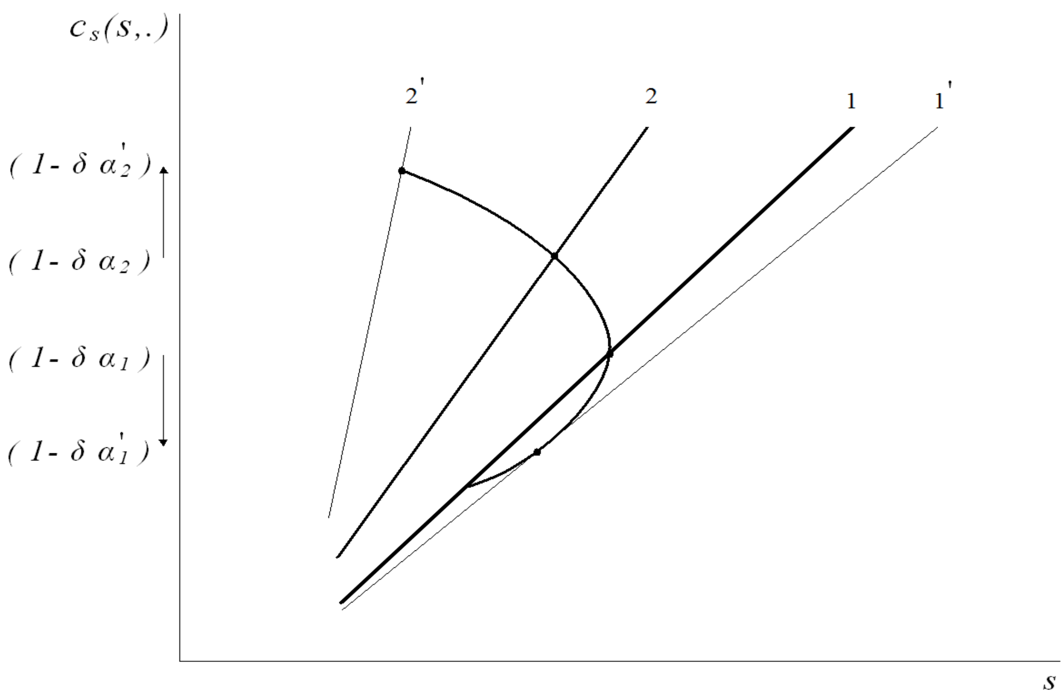
Figure I : Feasible Effective Ownership Stakes Given Monitoring Ability



The figure translates possibilities to collude, when the small blockholder can only choose between monitoring or colluding with the large blockholder, in terms of effective ownership stakes. The area between the two curved lines in the upper (lower) part of the figure denotes effective ownership stakes of the large (small) blockholder given possible subdivisions of total private benefits obtained when both blockholders collude. For comparison, the hashed lines give effective ownership stakes of the two blockholders when they decide to divert resources independently. The figure reveals that the sum of the effective ownership stakes in the latter case, 0.095, is somewhat larger than what can be obtained by a coalition, 0.092. The possibility to divert resources independently implies that collusion is unsustainable.

Figure II: Changing Ownership Concentration and Level of Diversion



The figure depicts the optimal level of diversion at different ownership stakes. When blockholders become more efficient in diverting resources as their ownership stake, α, increases we have two opposing effects. On one hand, less diversion (i.e. internalizing externalities); on the other hand, more diversion (i.e. efficiency increases). It is shown that as the efficiency to divert resources increases at a decreasing rate, a given increase in α would lead to a lower increase in diverted resources when initial blockholding is higher. Depending on the parameter setting, at a certain ownership level the efficiency increase can be dominated by the incentive to internalize the externality of resource diversion. As depicted, an increase in blockholder concentration would lead to less diversion in case 2 blockholders divert resources independently. More generally, looking from the ordinate the locus should be (strictly) concave for the latter to hold.

Table I : Variable description

No.	Variable	Description Short	Source or Compustat Number	Description	Expected Sign	Rating	All	Broad
Tobin's Q							Count	Count
	Tobin's Q	Market Value /Book Value	(6-60-74+ mv(CRSP))/6	(bv(assets)-bv(common stock)-deferred taxes + mv(CRSP))/bv(assets)				
						AAA	59	59
1	ROA	Return on Assets	18/6	(Income Before Extraordinary Items)/Total Assets	+			
2	Lev	Leverage	(9+34)/6	Total Debt / Total Assets	+/-	AA+	26	238
3	CapInt	Asset Tangibility	7/6	(Gross Property, Plant and Equipment (PPE))/Total Assets	-	AA	96	
4	Size	Size	ln(6)	log(Total Assets)	-	AA-	116	
5	Delaware	Delaware Incorporated	Incorporation Code	Equal to one if the company is incorporated in Delaware	+			
6	CapExp	Capital Expenditure	30/6	(Capital Expenditure on Property Plant and Equipment)/Total Assets	+/-	A+	232	989
7	Age	Age	CRSP	log(Months since first listing CRSP)	-	A	441	
8	β	Beta	CRSP	Beta coefficients are obtained by regressing daily company stock returns from the current calendar year on market returns (i.e. the Wilshire5000), where we require at least 200 return observations. To adjust for nonsynchronous trading effects we use the method suggested by Dimson (1979), adding one leading and one lagging value of the market return as explanatory variables. Though it does not affect results, in line with Blume et al. (1998), each year we scale betas by their cross-sectional mean.	+	A-	316	
Rating						BBB+	427	1142
	Rating		S&P CREDITPRO 7.0 (June 2005)			BBB	391	
						BBB-	324	
1	Fin/Utility	Fin/Utility	SIC code	1 if the firm is a financial institution (1 digit SIC code 6) or a utility (2 digit SIC code 49)	+	BB+	208	643
2	Lev	Leverage (Market)	(9+34)/CRSP	log(Total Debt / mv(CRSP))	-	BB	245	
3	$loss_{\{t-1,t\}}$	Losses	18	Equal to 1 if net income before extraordinary items < 0 in the previous two fiscal years	-	BB-	190	
4	D_{sub}	Subordinated Debt	80	1 if the firm has subordinated debt	-			
5	margin	Operating Margin	13/12	(Operating Income Before Depreciation) / Sales-net	+	B+	144	226
6	ret	Retained Earnings	36/6	Retained Earnings / Total Asset	+	B	60	
7	β	Beta	CRSP	Volatility due to general market movement (Wilshire5000)	-	B-	22	
8	Size	Size	ln(6)	log(Total Assets)	+			
9	cov_j	Interest Coverage	(15+178)/15	In line with Blume et al. (1998), as of skewness, we adjust the way interest coverage enters the model. For a negative value is not meaningful, we first set negative values to zero and truncate the maximum value to 100. Subsequently we use 4 brackets, with boundaries at coverage ratio's 5, 10 and 20, such that nonlinearities can be picked up by the model. For example, if the way interest coverage enters our model is denoted by $\Sigma_j \beta_j cov_{jit}$, an interest coverage ratio of 30 would enter as: cov_{ji1}=5, cov_{ji2}=5, cov_{ji3}=10 and cov_{ji4}=10.	+	CCC-C	18	18
Governance Index								
	GIM	Gompers et al. (2003)	WRDS	Uses 22 charter provisions, bylaw provisions, and other firm-level rules, plus possible coverage under 6 state takeover laws.				
	GIB	Bebchuk et al. (2005)	WRDS	Uses 6 governance provisions: Classified Board, Golden Parachutes, Bylaws, Charter, Supermajority and Poison Pill (cf. Gompers et al. (2003), table 1, p.112).				
	ATI	Cremers et al. (2007)	WRDS	Uses 4 governance provisions: Blank Check, Classified Board, Special Meeting and Written Consent (cf. Gompers et al. (2003), table 1, p.112).				
Ownership		Dlugosz et al. (2006)						
	Insiders							
	Affiliated	Affiliated Entities	WRDS	Blockholder (e.g. an individual, company or trust) whose voting outcome is partially influenced, but not completely controlled, by an officer or director of the company.				
	ESOP	Employee Share Ownership Plans	WRDS	Blockholding by Employee Share Ownership Plans. Does not include employee shares held through non-ESOP retirement plans (e.g. non-ESOP 401(k) plans).				
	Director	Director	WRDS	Non-officer directors.				
	Officer	Officer	WRDS	Officers, even when they are are also directors.				
	Outsider							
	Outsider	Outside blockholders	WRDS	Blockholders that are not part of one of the other categories.				
	Herfindahl	Herfindahl Index (Scaled)	-	Herfindahl = $[(\%Block1) + (\%Block2) + ... + (\%Block5)]^2 / [(\%Block1)^2 + (\%Block2)^2 + ... + (\%Block5)^2]$				

To merge the different data sets we use the following time conventions. The time period considered are the calendar years stretching from 1996 to 2001. In each specific year we take the end of the year as our point of reference. Firm specific variables constructed using COMPUSTAT data are always related to the last closed fiscal year. Variables constructed out of CRSP data are always up to date. That is, market values of equity are calculated as the number of shares outstanding times the stock price at the end of the year. Betas are estimated using daily data from the current calendar year, where we require at least 200 return observations. In line with Gompers et al. (2003), we assume governance provisions do not change until the IRRC publishes new data. We use the blockholding data reported in the specific calendar year considered.

Table II : Blockholder Size

Notes: All statistics relate to the Tobin's Q sample of 3654 firm-year observations. The rating sample yields qualitatively similar results. The upper part of the table shows the largest blockholder type distribution, scaled by the total number of observations. The lower part of the table gives an overview of successors, conditioned on largest blockholder type. Affiliated entities, ESOPs, Directors and Officers are merged into one insider category.

		Largest Blockholder				
		Affiliated	ESOP	Director	Officer	Outsider
		%	%	%	%	%
Coverage		7.0	6.4	3.6	5.8	62.5
		Successors				
Second	None	22.2	39.7	34.1	25.5	22.9
	Insider	20.6	8.5	22.0	20.3	9.4
	Outsider	57.2	51.7	43.9	54.2	67.7
Third	None	52.5	71.4	56.1	48.6	52.2
	Insider	10.9	4.3	6.8	9.0	5.5
	Outsider	36.6	24.4	37.1	42.5	42.3
Fourth	None	77.4	87.2	73.5	69.8	75.2
	Insider	7.4	1.3	10.6	4.2	2.8
	Outsider	15.2	11.5	15.9	25.9	22.0
Fifth	None	92.6	94.0	87.1	89.2	88.9
	Insider	1.6	0.9	4.5	1.4	1.1
	Outsider	5.8	5.1	8.3	9.4	10.1

Table III: Tobin's Q - Governance Provisions and Blockholding

Variable	(1) All Blocks	(2) All Blocks	(3) All Blocks	(4) All Blocks	(5) Outsiders	(6) Outsiders	(7) Outsiders	(8) Outsiders
C	2.12 (0.22) a	2.06 (0.22) a	2.20 (0.22) a	2.18 (0.22) a	2.18 (0.22) a	2.18 (0.22) a	2.07 (0.22) a	2.18 (0.22) a
ROA	2.24 (0.16) a	2.30 (0.16) a	2.30 (0.16) a	2.30 (0.16) a	2.27 (0.16) a	2.29 (0.16) a	2.29 (0.16) a	2.28 (0.16) a
Lev	-0.68 (0.10) a	-0.71 (0.10) a	-0.68 (0.10) a	-0.67 (0.10) a	-0.68 (0.10) a	-0.68 (0.10) a	-0.68 (0.10) a	-0.68 (0.10) a
CapInt	-0.06 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)
Size	-0.06 (0.02) a	-0.05 (0.02) a	-0.06 (0.02) a	-0.06 (0.02) a	-0.06 (0.02) a	-0.06 (0.02) a	-0.06 (0.02) a	-0.06 (0.02) a
Delaware	0.12 (0.05) a	0.11 (0.05) b	0.11 (0.05) a	0.11 (0.05) b	0.12 (0.05) a	0.11 (0.05) a	0.11 (0.05) a	0.11 (0.05) a
CapExp	0.26 (0.32)	0.38 (0.32)	0.31 (0.32)	0.33 (0.32)	0.31 (0.32)	0.33 (0.32)	0.33 (0.32)	0.33 (0.32)
Age	-0.02 (0.03)	-0.01 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)
β	0.14 (0.02) a	0.15 (0.02) a	0.14 (0.02) a	0.15 (0.02) a	0.14 (0.02) a	0.14 (0.02) a	0.14 (0.02) a	0.14 (0.02) a
GIM	-0.02 (0.01) a	-0.02 (0.01) a	-0.02 (0.01) a	-0.02 (0.01) a	-0.02 (0.01) a	-0.02 (0.01) a	-0.01 (0.01) c	-0.02 (0.01) a
%Affiliated	-0.38 (0.23) b							
%ESOP	-0.90 (0.42) b							
%Director	0.50 (0.34) c							
%Officer	0.06 (0.37)							
%Outsider	-0.51 (0.10) a							
Affiliated		-0.03 (0.05)	0.02 (0.05)	0.01 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)
ESOP		-0.09 (0.05) b	-0.06 (0.05)	-0.04 (0.05)	-0.10 (0.05) b	-0.10 (0.05) b	-0.10 (0.05) b	-0.10 (0.05) b
Director		0.03 (0.06)	0.07 (0.06)	0.08 (0.06) c	0.02 (0.06)	0.01 (0.06)	0.01 (0.06)	0.01 (0.06)
Officer		-0.05 (0.05)	-0.01 (0.06)	0.00 (0.06)	-0.06 (0.05)	-0.06 (0.05)	-0.06 (0.05)	-0.06 (0.05)
Outsider		-0.10 (0.03) a	-0.03 (0.04)	0.02 (0.04)				
Blockholding aggregated								
%Small			-1.39 (0.60) a	-2.19 (0.64) a	-1.29 (0.45) a	-1.50 (0.46) a	-2.07 (0.63) a	-0.98 (0.49) b
%Medium			-0.42 (0.23) b	0.19 (0.42)	-0.61 (0.18) a	0.14 (0.44)	-0.11 (0.46)	-0.30 (0.26)
%Large			-0.46 (0.12) a	-0.23 (0.16) c	-0.54 (0.10) a	-0.27 (0.18) c	-0.26 (0.19) c	-0.34 (0.21) c
Herfindahl index								
Herfindahl*Medium				-0.09 (0.03) a		-0.07 (0.03) b	-0.07 (0.03) b	
Herfindahl*Large				-0.05 (0.02) a		-0.04 (0.02) b	-0.04 (0.02) b	
High shareholder rights								
(GIM ≤ 10)*Small							0.08 (0.06) c	
(GIM ≤ 10)*Medium							0.10 (0.05) b	
(GIM ≤ 10)*Large							0.03 (0.06)	
Herfindahl index								
Herfindahl*$Largest_{Small}$								-0.04 (0.02) b
Herfindahl*$Largest_{Medium}$								-0.03 (0.02) c
Herfindahl*$Largest_{Large}$								-0.02 (0.04)
R^2	0.19	0.19	0.20	0.20	0.20	0.20	0.20	0.20
n	3654	3654	3654	3654	3654	3654	3654	3654
firms	828	828	828	828	828	828	828	828
σ_v	0.30	0.31	0.31	0.31	0.30	0.31	0.31	0.31
σ_u	0.42	0.41	0.40	0.40	0.41	0.40	0.40	0.40
avg u	0.63	0.62	0.62	0.61	0.62	0.62	0.62	0.62

This table presents random effect unbalanced panel regressions of Tobin's Q on governance and control variables for 828 U.S. companies over the period 1996-2001. To reduce the weight of outliers Tobin's Q is capped at the 5 and 95 percentiles. The control variables are capped at the 0.5 and 99.5 percentiles. The control variables used are: Return on Assets (ROA), Leverage (Lev), Capital Intensity (CapInt), Firm Size (Size), a dummy equal to one if the company is incorporated in Delaware (Delaware), Capital Expenditure (CapExp), Firm Age (Age) and Market Beta (β), industry dummies based on 2 digit SIC codes (not reported), and time dummies (not reported). GIM denotes the governance index proposed by Gompers et al. (2003), consisting of 24 provisions, which adds 1 point if a provisions compromises on shareholder rights (GIM). The remaining variables refer to a firm's ownership structure, in terms of blockholding. Blockholders are shareholders owning 5 percent or more of a firm's stock. Ownership variables enter either as percentiles, always preceded by %, or as 0-1 indicators. The blockholder types considered are: Affiliated entities (Affiliated), Employee Stock Ownership Plans (ESOP), non-officer directors (Director), officers, even when they are also directors (Officer) and outside blockholders (Outsider). %Small, %Medium and %Large denote the total percentage of shares held by blockholders subdivided within three brackets, with boundaries at the 5, 10 and 25 percent level. The Herfindahl variable measures ownership concentration, considering the (potentially) 5 largest blockholders. Herfindahl = $[(\%Block1) + (\%Block2) + ... + (\%Block5)]^2/[(\%Block1)^2 + (\%Block2)^2 + ... + (\%Block5)^2]$. $Largest_{Small}$, $Largest_{Medium}$ and $Largest_{Large}$ indicate whether the largest blockholder holds a block position in the intervals [5,10), [10,15), or 15 and beyond. Except for the type dummies, ownership variables at the left hand side of the table relate to all blockholders, ownership variables at the right hand side of the table consider outside blockholders only. σ_v and σ_u denote respectively the estimated between-groups and within-groups variance. Standard errors are in parentheses. a,b,c denote statistical significance at respectively the 1, 5 and 10 percent level.

Table IV: Credit Ratings - Governance Provisions and Blockholding

	All Blocks				Outsiders			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Fin/Utility	4.36 (0.61) a	4.45 (0.44) a	4.23 (0.42) a	4.38 (0.63) a	4.29 (0.42) a	5.24 (0.61) a	4.55 (0.47) a	4.28 (0.42) a
Lev	-1.00 (0.08) a	-0.98 (0.08) a	-0.98 (0.08) a	-0.99 (0.08) a	-0.98 (0.08) a	-1.01 (0.08) a	-0.99 (0.08) a	-0.98 (0.08) a
$loss_{\{t-1,t\}}$	-1.03 (0.28) a	-1.04 (0.28) a	-1.04 (0.28) a	-1.09 (0.28) a	-1.03 (0.28) a	-1.02 (0.29) a	-0.99 (0.28) a	-1.03 (0.28) a
D_{sub}	-0.55 (0.22) a	-0.54 (0.22) a	-0.51 (0.22) b	-0.62 (0.22) a	-0.50 (0.22) b	-0.69 (0.24) a	-0.66 (0.22) a	-0.53 (0.22) a
cov_1	0.30 (0.06) a	0.31 (0.06) a	0.31 (0.06) a	0.31 (0.06) a	0.30 (0.06) a	0.29 (0.06) a	0.32 (0.06) a	0.31 (0.06) a
cov_2	0.13 (0.04) a	0.14 (0.04) a	0.14 (0.04) a	0.14 (0.04) a	0.14 (0.04) a	0.15 (0.04) a	0.12 (0.05) a	0.14 (0.04) a
cov_3	0.07 (0.03) b	0.07 (0.03) a	0.07 (0.03) a	0.07 (0.03) a	0.07 (0.03) a	0.07 (0.03) b	0.07 (0.03) a	0.07 (0.03) a
cov_4	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
margin	-1.38 (0.77) b	-1.29 (0.74) b	-1.42 (0.72) b	-1.49 (0.76) b	-1.43 (0.70) b	-1.45 (0.73) b	-1.34 (0.69) b	-1.39 (0.69) b
ret	5.78 (0.53) a	5.87 (0.49) a	5.73 (0.51) a	5.76 (0.52) a	5.78 (0.51) a	5.89 (0.48) a	5.72 (0.52) a	5.79 (0.51) a
β	-0.46 (0.09) a	-0.43 (0.09) a	-0.43 (0.09) a	-0.45 (0.09) a	-0.43 (0.09) a	-0.41 (0.09) a	-0.43 (0.09) a	-0.43 (0.09) a
Size	2.54 (0.13) a	2.58 (0.13) a	2.62 (0.13) a	2.54 (0.13) a	2.64 (0.13) a	2.59 (0.14) a	2.57 (0.12) a	2.63 (0.13) a
GIM	0.13 (0.05) a	0.13 (0.05) a	0.09 (0.04) b	0.13 (0.05) a	0.09 (0.04) b	0.16 (0.05) a	0.11 (0.05) b	0.09 (0.04) b
%Affiliated	-1.87 (0.99) b							
%ESOP	-2.66 (1.81) c							
%Director	-1.61 (1.87)							
%Officer	-3.74 (2.27) b							
%Outsider	-2.11 (0.47) a							
Affiliated		-0.71 (0.26) a	-0.44 (0.27) c	-0.34 (0.25) c	-0.67 (0.27) a	-0.48 (0.29) b	-0.63 (0.28) b	-0.60 (0.27) b
ESOP		-0.05 (0.23)	0.10 (0.23)	0.04 (0.25)	-0.07 (0.23)	-0.09 (0.23)	-0.14 (0.24)	-0.07 (0.23)
Director		-0.03 (0.27)	0.16 (0.27)	0.12 (0.27)	-0.01 (0.27)	0.08 (0.27)	-0.10 (0.26)	-0.02 (0.27)
Officer		-0.38 (0.28) c	-0.18 (0.28)	-0.16 (0.28)	-0.36 (0.28) c	-0.12 (0.28)	-0.40 (0.27) c	-0.36 (0.28) c
Outsider		-0.65 (0.13) a	-0.32 (0.16) b	-0.27 (0.17) c				
Blockholding aggregated								
%Small			-4.84 (2.61) b	-5.60 (2.73) b	-7.01 (1.87) a	-7.49 (1.91) a	-5.81 (2.62) b	-4.61 (2.07) b
%Medium			-2.85 (1.05) a	-3.31 (1.88) b	-3.35 (0.77) a	-2.14 (1.89)	-1.20 (1.94)	-0.82 (1.20)
%Large			-2.04 (0.61) a	-0.97 (0.75) c	-2.33 (0.49) a	-0.98 (0.85)	-0.45 (0.89)	0.08 (1.01)
Herfindahl index								
Herfindahl*Medium				-0.03 (0.15)		-0.14 (0.11) c	-0.14 (0.14)	
Herfindahl*Large				-0.14 (0.08) b		-0.16 (0.09) b	-0.19 (0.09) b	
High shareholder rights								
(GIM ≤ 10)*Small							-0.29 (0.24)	
(GIM ≤ 10)*Medium							-0.31 (0.21) c	
(GIM ≤ 10)*Large							-0.23 (0.24)	
Herfindahl index								
Herfindahl*$Largest_{Small}$								-0.22 (0.09) a
Herfindahl*$Largest_{Medium}$								-0.27 (0.11) a
Herfindahl*$Largest_{Large}$								-0.36 (0.16) b
σ_u	6.08 (0.21) a	6.14 (0.19) a	6.09 (0.18) a	6.11 (0.21) a	6.08 (0.18) a	6.14 (0.29) a	6.39 (0.20) a	6.08 (0.18) a
LR index (Pseudo-R^2)	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
n	3315	3315	3315	3315	3315	3315	3315	3315
firms	826	826	826	826	826	826	826	826

This table presents random effect unbalanced panel regressions of Standard and Poor's corporate credit ratings on governance and control variables for 826 U.S. companies over the period 1996-2001. The control variables used are: a dummy equal to one if the company is a financial institution (one digit SIC code 6) or a utility (two digit SIC code 49) (Fin/Utility), Market Leverage (Lev), a dummy equal to one if net income before extraordinary items is negative in the previous two fiscal years ($loss_{\{t-1,t\}}$), a dummy equal to one if the firm has subordinated debt (D_{sub}), interest coverage (cov_j), Operating Margin (margin), Retained Earnings (ret), Market Beta (β), Firm Size (Size), and time dummies (not shown). Control variables are capped at the 0.5 and 99.5 percentiles. GIM denotes the governance index proposed by Gompers et al. (2003), consisting of 24 provisions, which adds 1 point if a provisions compromises on shareholder rights (GIM). The remaining variables refer to a firm's ownership structure, in terms of blockholding. Blockholders are shareholders owning 5 percent or more of a firm's stock. Ownership variables enter either as percentiles, always preceded by %, or as 0-1 indicators. The blockholder types considered are: Affiliated entities (Affiliated), Employee Stock Ownership Plans (ESOP), non-officer directors (Director), officers, even when they are also directors (Officer) and outside blockholders (Outsider). %Small, %Medium and %Large denote the total percentage of shares held by blockholders subdivided within three brackets, with boundaries at the 5, 10 and 25 percent level. The Herfindahl variable measures ownership concentration, considering the (potentially) 5 largest blockholders. Herfindahl = $[(\%Block1) + (\%Block2) + ... + (\%Block5)]^2/[(\%Block1)^2 + (\%Block2)^2 + ... + (\%Block5)^2]$. $Largest_{Small}$, $Largest_{Medium}$ and $Largest_{Large}$ indicate whether the largest blockholder holds a block position in the intervals [5,10), [10,15), or 15 and beyond. Except for the type dummies, ownership variables at the left hand side of the table relate to all blockholders, ownership variables at the right hand side of the table consider outside blockholders only. σ_v denotes the estimated standard deviation of the random effect. McFadden's LR index (Pseudo-R^2) equals $1-\ln(L)/\ln(L_0)$, where L_0 denotes the likelihood statistic when, apart from a constant, no explanatory variables are included. Standard errors are in parentheses. a,b,c denote statistical significance at respectively the 1, 5 and 10 percent level.