

When Should Control Be Shared?

Eva Meyersson Milgrom, Paul Milgrom, and Ravi Singh

Preliminary Draft

November 30, 2006

Abstract

When heterogeneous interests and asymmetric information limit the ability of a firm's stakeholders to bargain to efficient decisions, losses result regardless of whether control is shared or undivided among the parties. Without protections, undivided control offers unlimited opportunities for exploitation by the controlling party. We argue that enforceable obligations of good faith and fair dealing play an important role in facilitating undivided control. With these protections, we show that undivided control is superior to shared control when the redistributive consequences of decisions are particularly difficult for some stakeholders to assess. However, shared control is optimal among well-informed and sophisticated parties. Our model is consistent with a wide set of evidence about shared control and renegotiation in contracting.

1 Introduction

The right to participate in control is one of the primary instruments for protecting stakeholder interests in a firm, but those protections come at a cost. Hansmann (1996) argues persuasively that significant diversity in the ownership group can lead to deadlock and inefficient decisions and that these costs help to explain observed ownership structures. In particular, he argues that the similarity of interests among suppliers of capital accounts for the popularity of capital-controlled firms and that the labor-controlled firms are often partnerships with a single class of labor exercising management control.

This conception of unified control and its reasons is incomplete in at least two important ways. First, the very focus on ownership as control obscures the fact that control structures vary not only across firms, but across types of decisions within a firm. While there is usually at least one group that retains a broad set of rights (management in widely held corporations), other stakeholders often have veto rights over certain classes of decisions. Examples include loan contracts that restrict the ability of management to sell assets or increase dividends without the explicit approval of the lender, labor contracts that limit management's ability to reassign workers or reduce employment, and the right of shareholders to approve a merger or sale of the firm.¹

Second, Hansmann's claim that unified control is necessary because the costs of shared control increase with diversity omits an important opposing force. There are also benefits of shared control that arise precisely because it ensures that different interests are properly considered in decision making. Like the costs, these benefits rise with increasing diversity. Our examples point to the importance of this effect: stakeholders often have veto rights precisely with respect to those decisions for which the diversity of interests can be high.

The examples cited above suggest that in one common pattern of control, a central decision-making group (management) makes proposals to stakeholders who have veto rights over some decisions. In this paper, we model this pattern and explore the costs and benefits of allowing a stakeholder to exercise control in this manner. Following the property rights theory of the firm (Grossman and Hart, 1986 and Hart and Moore, 1990), we assume that the parties cannot specify in advance the appropriate decision in every contingency, but instead must either give the manager an essentially unfettered right to implement proposals (undivided control) or the stakeholder the right to block proposals (shared control). The property rights theory focuses on how the allocation

¹Although shareholders are commonly viewed as having special status as a firm's owners, shareholders in large public corporations have extremely limited ability to intervene in most decisions. The current debate over whether shareholders should have greater power to select directors highlights the limited powers of shareholders and the fact that securities laws explicitly balance the benefits of protecting shareholders against the cost of shareholder interference in managerial decision-making. In this regard, shareholders are properly viewed as another stakeholder with limited veto rights.

of control affects the ex ante incentives of parties to invest in the firm. We instead adopt the transactions cost economics approach and analyze how control affects ex post decision-making and the ability of the firm to adapt optimally to changing circumstances.² In particular, we explore whether the parties are more likely to bargain to efficient decisions when control is shared or undivided.

To analyze the relationship between control and bargaining frictions, we consider a situation in which management is better informed than the stakeholder about the distributional consequences of its proposals. Even when the parties agree that a proposal is efficient, they may not agree on the appropriate compensation for any adverse impact a proposal has on the stakeholder. When control is shared and there is disagreement over the distributional consequences of a proposal, the stakeholder may inefficiently block the proposal. In contrast, with undivided control, management can simply implement the proposal without worrying about the appropriate compensation for the stakeholder, so that inefficiency is avoided. Undivided control, however, leads to inefficient decision-making in other circumstances. When a proposal benefits management but is inefficient, the stakeholder has to compensate the manager not to take the decision. As before, the parties cannot always reach agreement, and management may opt to implement a value-destroying proposal.

We find that as the interests of the parties diverge and proposals lead to greater redistribution, the likelihood of disagreement increases and decision-making is less efficient, regardless of whether control is shared or undivided. Thus, the mere existence of a bargaining problem, by itself, has no clear implications for the optimal allocation of control. This analysis hinges on the fact that negotiation can take place whatever the allocation of control.

We argue, however, that certain types of negotiations are unlikely to take place and that this fact is decisive for governance. For example, suppose management approaches a lender and demands a payment in exchange for not undertaking a risky project with negative value which is nevertheless profitable for management. Such extortionate demands are uncommon, as they can lead to legal actions and punishment for the managers. Signers of contracts have an obligation of “good faith and fair dealing” that is too transparently violated by some kinds of extortionate demands. Management also has a fiduciary duty to shareholders that similarly limits some kinds of extortionate demands.

It is in fact efficient to rule out extortionate negotiations. When the manager can invest effort to generate either value-destroying or value-increasing proposals, ruling out “extortionate demands” improves the types of projects in which the manager invests. Although limits on such demands can sometimes lead managers to implement bad proposals when it would be efficient to bribe them to do otherwise, they may nevertheless increase overall efficiency by wastefully reducing rent-seeking efforts. This is the reason we believe that these types of negotiations are commonly ruled out either

²For a discussion of transaction cost economics see Williamson (1985), who emphasizes the critical role of governance structures in improving ex post decision-making.

explicitly or implicitly.

When control is shared, the stakeholder has veto power over proposals, so there is no need to limit management’s proposals. It is only when management has undivided control that there must be limits on the transfers that management can demand (i.e., limitations on the frequency of bargaining). Given this difference, bargaining frictions affect different configurations of control asymmetrically. As bargaining becomes more efficient, more control sharing, with its attendant more frequent bargaining, is more often optimal. Because bargaining costs decline when there is greater agreement over the distributional consequences of projects and when the stakeholder is better informed, we should observe sharing of control among parties that either have relatively homogenous interests or are well-informed if they have conflicting interests.

We introduce the model in the next section and analyze the effect of bargaining frictions on different governance structures in section 3. In sections 4 and 5, we show that it may be efficient to limit bargaining among parties in the firm and analyze the manager’s incentives to invest in proposals. In section 6, we explore the impact of incentive contracts. We discuss how our model applies to a firm’s creditors, employees, and minority shareholders in section 7. Finally, section 8 concludes.

2 The Firm and Its Governance Structure

Consider a firm with two risk-neutral parties: a manager who generates a proposal and a stakeholder that has an interest in whether the proposal is implemented. In the baseline model, the manager always successfully generates a proposal and its quality is independent of the manager’s effort. The state is “good” (g) and the project increases joint surplus with probability q ; otherwise, the state is “bad” (b) and the project is unproductive. In state i , the manager’s payoff is $m_i = \pi_i + r$ and the stakeholder’s payoff is $s_i = \pi_i - r$, where $\pi_g > 0$ and $\pi_b \leq 0$. The proposal redistributes a positive amount r of wealth from the stakeholder to manager, where the support of r has a minimum $r_l \geq 0$ and and maximum value r_h (not necessarily finite respectively).

The fact that the redistribution always favors the manager implies that the manager is biased toward implementing the project and is an important source of conflict in the model. In addition, we assume that the manager is better informed about the redistributive consequences of the project: the manager observes the realized value of r prior to implementing the project, while the stakeholder observes r only with probability z . For simplicity, we assume that the parties are equally informed about the proposal’s quality.

Prior to starting the firm, the manager and stakeholder must agree on how decisions will be governed. The parties can either give the manager the unfettered right to implement a proposal

or give the stakeholder a check or veto over the manager’s decisions. We refer to the former governance structure as “undivided control” and the latter structure as “shared control.”³ Regardless of the governance structure, the parties may bargain ex post over the firm’s course of action. For concreteness, we assume the following protocol: the manager can choose to make a take it or leave it offer to the stakeholder, where any such offer specifies a course of action and transfers between the parties if the stakeholder accepts the offer. If control is undivided, the offer must specify the course of action the manager will take if the proposal is rejected. If control is shared and the stakeholder does not accept the offer, the firm maintains the status quo. Finally, when control is undivided, the manager can choose not to negotiate and simply proceed with a course of action. If control is shared, the manager can opt not to make a proposal.

Finally, we allow the parties to make arbitrary side payments ex ante, implying that the firm’s governance structure is chosen to maximize total surplus. Summarizing the timing of the model: (1) the parties decide on the allocation of control (2) the manager generates a proposal and observes the payoffs associated with the proposal; (3) with probability z , the stakeholder observes the redistributive consequences of the proposal; and (4) the parties negotiate over whether to implement the proposal.

Shared Control

When control is shared, the manager must obtain the approval of the stakeholder to implement a proposal. When a proposal is unproductive, there is no scope for negotiation and the stakeholder simply blocks it. When the manager’s proposal is good and both parties are equally informed about the proposal’s payoffs, the manager offers the stakeholder a transfer, $y_s = -s_g$, and the stakeholder approves the project.

However, the stakeholder is not always informed about the redistributive consequences of the proposal. In this case, if the manager offers the stakeholder a transfer to accept the proposal, the stakeholder updates her beliefs and decides whether to accept or reject the offer. In any pure strategy equilibrium, there is a transfer t such that the manager offers t only if $m_g \geq t$ and the stakeholder accepts the offer if

$$E[s_g + t | m_g \geq t] \geq 0 \tag{1}$$

We restrict our attention to the equilibrium in which for any offer t off the equilibrium path, the stakeholder updates her expectation about the level of redistribution in the same manner, i.e., $E[r | t] = E[r | m_g \geq t]$. Let t_s be the smallest transfer that satisfies equation (1).⁴ Given the

³We assume that the manager has effective control over the firm’s agenda. For this reason, we do not analyze the case in which the stakeholder has undivided control.

⁴For $t = -\pi_g$, $E[s_g + t | m_g \geq t] \leq 0$. Similarly, $E[s_g + t | m_g \geq t] \geq 0$ for $t \geq r_h - \pi_g$. Therefore, a sufficient condition for the existence of t_s is that r has a continuous distribution.

stakeholder's beliefs, it is optimal for the manager to offer t_s whenever $m_g \geq t_s$ and otherwise maintain the status quo.⁵ Using the fact that $s_g = 2\pi_g - m_g$ and rewriting equation (1), we have that

$$E[m_g - t_s \mid m_g - t_s \geq 0] = 2\pi_g \quad (2)$$

Equation 2 implies that the optimal transfer, t_s , is such that the manager in expectation extracts the entire surplus.

Summarizing the analysis, the parties never implement a bad proposal. When the proposal is productive and stakeholder is informed, the parties bargain efficiently and implement the proposal, generating a surplus of $2\pi_g$. However, with probability $1 - z$ the stakeholder is uninformed. In this case, the proposal is implemented only if $m_g \geq t_s$. The joint expected surplus under shared control is therefore:

$$S \equiv q[z + (1 - z) \Pr[m_g \geq t_s]] 2\pi_g \quad (3)$$

Although we have assumed a particular bargaining protocol and a particular equilibrium given this protocol, the basic structure of equation (3) is the same regardless of the bargaining equilibrium. If bargaining is efficient in the symmetric information case, we can simply replace the term $\Pr[m_g \geq t_s]$ in the asymmetric information case with some arbitrary probability of approval and proceed with much of the analysis in the same way.

Recall that r_l is the minimum value of the support of r and let \bar{r} denote the mean of r . We have the following proposition:

Proposition 1 *Suppose control is shared. Then, the manager never obtains approval for a bad proposal. The manager always obtains approval for a good proposal if and only if $\bar{r} - r_l \leq 2\pi_g$.*

Proof. If a proposal is bad, there is no transfer that the manager is willing to pay, which is sufficient to obtain the stakeholder's approval. Suppose the proposal is good and that $\bar{r} - r_l \leq 2\pi_g$. If the manager were to offer the stakeholder a transfer $t = \pi_g + r_l$, the stakeholder's expected payoff would be $2\pi_g + r_l - \bar{r} \geq 0$. It follows that the equilibrium offer, t_s , is less than or equal to $\pi_g + r_l$, and the stakeholder accepts this offer for all realizations of r . Next, let $2\pi_g < \bar{r} - r_l$. In this case, the stakeholder would reject the offer $t = \pi_g + r_l$ and it must be the case that $t_s > \pi_g + r_l$. Therefore, for realizations of r such that $r_l \leq r < t_s - \pi_g$, the proposal is not implemented.

Intuitively, the term $r - r_l$ is the component of the total level of redistribution that is uncertain and difficult to measure. Good projects are blocked with strictly positive probability when this component is expected to be large relative to the total surplus of a good proposal, $2\pi_g$. An implication of Proposition 1 is that when proposals either have small distributional consequences

⁵For $m_g < t$, we assume that the manager does not make an offer. An alternative approach is to assume the manager makes an offer that the stakeholder rejects after correctly updating her beliefs.

or the consequences known in advance, $S = 2q\pi_g$, and shared control leads to efficient decision-making.

Undivided Control

When control is undivided, the manager can opt to proceed with a proposal unchecked by the stakeholder. Suppose the proposal is productive and the stakeholder is informed. The manager can extract a transfer $y_u = \max\{s_g, 0\}$ from the stakeholder by threatening not to pursue the project.⁶ The stakeholder is just willing to pay such a transfer and the proposal is implemented. Similarly, if the stakeholder is uninformed, the managers can extract a transfer $y_u = \max\{E[s_g], 0\}$.⁷ We therefore have that good projects are always implemented when control is undivided. This result is in contrast to the situation under shared control, in which good projects are sometimes blocked.

The source of inefficiency when control is undivided is that the manager sometimes implements bad proposals. If a proposal is bad, it is efficient for the stakeholder to pay the manager not to undertake the project. If both parties are equally informed, the manager demands a transfer $y_u = -s_b$ to compensate him for not undertaking the proposal. The stakeholder pays this transfer, and the parties achieve the efficient outcome. However, suppose the stakeholder is not informed. In this case, there may be disagreement over the appropriate payment to the manager. Doing an analysis analogous to that when control is shared, we obtain that the equilibrium transfer is t_u , where t_u is the largest transfer satisfying:

$$E[t - m_b \mid t - m_b \geq 0] = -2\pi_b \quad (4)$$

To understand equation (4), note that when the manager demands a transfer t to not implement a bad proposal, the potential net increase in his payoff is $t - m_b$. The manager is only willing to accept such a transfer if $t - m_b \geq 0$. In equilibrium, the manager demands a transfer such that in expectation he receives all the surplus that is saved by not proceeding with the proposal. If the manager demands more than this amount, the stakeholder rejects the offer. When $t_u - m_b < 0$, the manager foresees that the stakeholder will reject any demand the manager finds acceptable and simply implements the bad project.

Given the preceding analysis, we have that the parties always implement good proposals, gen-

⁶The fact that the manager can make credible threats is not at all central to our analysis. We can also proceed by assuming that the manager takes the action that is in his best interest if the stakeholder refuses his offer. Assuming the manager can make such threats slightly simplifies the analysis by reducing the number of cases we have to deal with. For example, when the proposal is bad, we do not need to consider whether the manager actually prefers to pursue such a project or not. In either case, the manager threatens to pursue the project to extract the most rents. In addition, our assumption ensures that the manager is able to extract greater rents from the stakeholder when control is undivided than when control is divided.

⁷As before, we assume that the stakeholder infers that the expected level of redistribution is $E[r \mid m_g \geq t]$ given an offer t .

erating a surplus of $2\pi_g$. The parties implement bad proposal only when the stakeholder is both uninformed and bargaining breaks down, generating a negative surplus of $|2\pi_b|$. The probability of this event is $(1 - q)(1 - z) \Pr[m_b \geq t_u]$. The joint expected surplus when control is undivided is therefore:

$$U \equiv q2\pi_g + (1 - q)(1 - z) \Pr[m_b > t_u]2\pi_b \quad (5)$$

The following result is the analogue of Proposition 1 (the proof is along exactly the same lines and is omitted).

Proposition 2 *Suppose control is undivided. Then, the manager always implements a good proposal. The manager implements a bad proposal with some probability if and only if $r_h - \bar{r} \leq -2\pi_b$.*

The manager sometimes implements bad proposals when $r_h - \bar{r}$ exceeds the surplus saved by maintaining the status quo. When $r_h - \bar{r}$ is large, the realized value of the redistribution may be significantly greater than the value expected by the stakeholder. In this situation, disagreements arise over the appropriate compensation and bargaining breaks down. Proposition 2 suggests that it is not the magnitude of the redistribution that impacts efficiency, but the variability. We formalize this intuition in the next section. When decisions vary in their redistributive consequences and the manager is better informed about these consequences, there is a nontrivial tradeoff in the choice of the firm's governance structure. When control is undivided, the manager sometimes implements bad proposals; when control is shared, the stakeholder sometimes blocks good proposals.

3 Bargaining Frictions and Control

We have shown that when decisions vary in their redistributive consequences and the manager is better informed about these consequences, there is a nontrivial tradeoff in the allocation of control. When control is undivided, the manager sometimes implements bad proposals; when control is shared, the stakeholder sometimes blocks good proposals. In this section, we explore the effect of bargaining costs on both the absolute and relative values of shared and undivided control.

Let $P_s \equiv \Pr[m_g \geq t_s]$ and $P_u \equiv \Pr[m_b \geq t_u]$. P_s is the probability a good project is approved when control is shared, and P_u is the probability that a bad project is implemented when control is undivided. From equations (3) and (5), we have that

$$U - S = 2(1 - z)[q(1 - P_s)\pi_g + (1 - q)P_u\pi_b] \quad (6)$$

Note that $\pi_b < 0$, implying that the sign of $U - S$ is ambiguous. Undivided control yields greater benefits when the bargaining frictions under shared control exceed that under undivided control.

Recall that z is the likelihood that the stakeholder is informed. A direct implication of equations (3), (5), and (6) is the following proposition:

Proposition 3 *As the stakeholder becomes better informed (z increases), there is an increase in the value of both shared control and undivided control. Moreover, an increase in z has no impact on the sign of $U - S$ and thus the optimal governance structure.*

As the stakeholder becomes more sophisticated and is better informed about the distributional consequences of decisions, bargaining becomes more efficient, raising the value of both shared and undivided control. However, a change in z does not affect the optimal allocation of control.

As suggested in the previous section, it is the variability in the level of redistribution that results in conflict and inefficiency. To make this intuition precise, we can write the level of redistribution as $r = \bar{r} + \epsilon$, where \bar{r} is the mean of r and ϵ is mean zero shock. For $\sigma > 0$, define $r_\sigma \equiv \bar{r} + \sigma\epsilon$; r_σ has the same mean as r , but $Var(\sigma r) = \sigma^2 Var(r)$, implying that r_σ has a larger variance for $\sigma > 1$. It is easy to verify that simply shifting the distribution of r by a constant has no effect on the value of shared control. However, the next proposition establishes that the probability bargaining is inefficient depends on the *variability* of the redistribution relative to the *level* of the surplus at stake.

Proposition 4 *If control is shared, then as $\sigma^2/2\pi_g$ increases, good proposals are blocked with higher probability. If control is undivided, then as $\sigma^2/|2\pi_b|$ increases, the manager adopts bad proposals with higher probability*

Proof. Let $\tilde{x} = \tilde{\sigma}/2\tilde{\pi}_g$ and $x' = \sigma'/2\pi'_g$, where $\tilde{x} = kx'$ and $k > 1$. In addition, let \tilde{t}_s be the equilibrium transfer offered by the manager when the stakeholder is uninformed and $\sigma = \tilde{\sigma}$ and $\pi_g = \tilde{\pi}_g$; define t'_s in an analogous fashion. \tilde{t}_s is the smallest transfer that satisfies equation (2). In particular, $E[q(\tilde{t}_s, \pi_g) + \tilde{x}\epsilon \mid q(\tilde{t}_s, \pi_g) + \tilde{x}\epsilon \geq 0] = 1$ where $q(t, \pi_g) \equiv (E[m_g] - t)/2\pi_g$. t'_s satisfies the corresponding condition, implying that $kE[q(t'_s, \pi_g) + x'\epsilon \mid q(t'_s, \pi_g) + x'\epsilon \geq 0] = E[kq(t'_s, \pi_g) + \tilde{x}\epsilon \mid kq(t'_s, \pi_g) + \tilde{x}\epsilon \geq 0] = k > 1$. It follows that $q(\tilde{t}_s, \pi_g) \neq kq(t'_s, \pi_g)$. It must in fact be the case that $q(\tilde{t}_s, \pi_g) < kq(t'_s, \pi_g)$; if not, there exists an offer satisfying equation (2) that is smaller than t'_s , which would be a contradiction. The preceding inequality implies that $\Pr[q(\tilde{t}_s, \pi_g) + \tilde{x}\epsilon \geq 0] \leq \Pr[q(t'_s, \pi_g) + x'\epsilon \geq 0]$. The likelihood that a good project is approved is therefore lower when $\sigma/2\pi_g$ increases from x' to \tilde{x} . When control is undivided, an argument along exactly the same lines establishes that $h(\tilde{t}_s, \pi_g) < kh(t'_s, \pi_g)$, where $h(t, \pi_b) \equiv (t - E[m_b])/|2\pi_b|$. This inequality implies that $\Pr[h(\tilde{t}_s, \pi_g) + \tilde{x}\epsilon < 0] \geq \Pr[h(t'_s, \pi_g) + x'\epsilon < 0]$, from which it follows that the manager is more likely to implement bad projects given \tilde{x} .

The following result is a direct implication of Proposition 4:

Corollary 1 *As σ^2 increases, the expected surplus associated with both shared and undivided control declines.*

As the variability of the redistribution increases, the adverse selection problem grows more severe and the stakeholder is more likely to reject the manager's terms. Intuitively, the distributional consequences of proposals becomes more difficult to measure as the variability of redistribution increases. The parties thus are less likely to agree on the appropriate transfers.

Proposition 4 also implies that when control is shared, good proposals are less likely to be blocked as the surplus generated by good proposals increases. However, any given level of blocking becomes more costly as $2\pi_g$ increases. The net effect on S , the expected surplus when control is shared, is therefore ambiguous. The effect on the optimal governance structure is also ambiguous, although the value of undivided control unambiguously increases in $2\pi_g$. Similarly, when control is undivided, the manager implements fewer bad proposals when the value destroyed, $|2\pi_b|$, increases. However, whenever the manager does implement such projects, the surplus lost is greater. The net effect on the value of undivided control is therefore ambiguous (a change in $|2\pi_b|$ has no impact on the value of shared control). Correspondingly, the effect of a change in $|2\pi_b|$ has an ambiguous effect on the optimal governance structure.

Thus far, changes in all the parameters we have analyzed have an ambiguous effect on $U - S$ and thus optimal allocation of control. The one exception is the likelihood of a good proposal, q . Since the costs of rejecting good proposals or accepting bad proposals are proportional to the frequencies of the two kinds of proposals, it is intuitive that shifting probability from bad proposals to good proposals favors undivided control. The benefit of undivided control increases relative to shared control as the likelihood that proposals are good increases.

In this section, we have shown that changes in bargaining cost due to say an increase in the variability of the redistribution adversely impacts both shared and undivided control. The effect on the optimal governance is thus ambiguous. This result is a natural consequence of the fact that the allocation of control does not eliminate the need for bargaining, but simply alters the direction of transfers between the parties. However, in the following section, we argue that there are important reasons why parties may rule out certain negotiations. In such a scenario, bargaining costs no longer have a symmetric impact on shared and undivided control.

4 Limits on Coasian Bargaining

When control is undivided and the manager generates a bad proposal, efficiency requires that the stakeholder must pay the manager not to implement the project. Although paying off a party to refrain from taking a value-decreasing action is efficient ex post, such payoffs create a perverse

incentive for parties to invest in value-decreasing projects. We capture this possibility in a stark manner by assuming that instead of working on a potentially productive proposal, the manager can engage in pure rent-seeking and develop a proposal that imposes a cost of H on the stakeholder and yields no direct benefit to the manager.

If control is undivided and the manager engages in rent-seeking, bargaining yields a transfer of H to the manager (we assume the parties are symmetrically informed about this type of proposal). We thus have the following proposition:

Proposition 5 *If control is undivided and H is sufficiently large, the manager engages in unproductive rent-seeking.*

To discourage this form of rent-seeking, it is necessary to prohibit the manager from demanding transfers in exchange for not taking harmful actions. Protection from this form of extortion may be explicit, as when an agent has a legally enforceable duty of loyalty to a principal, or may be implicit, as when there are norms against negotiating in such circumstances. See Section 7 for a discussion of the concepts of good faith and fair dealing and the extent to which courts disallow parties from threatening to take actions (that are otherwise legal) as a way of obtaining concessions. For the purposes of our model, we assume the parties can contractually choose to disallow transfers in any subsequent bargaining over the firm's course of action. The parties choose whether to impose this additional protection at the same time they choose the firm's governance structure.

We have the following corollary to Proposition 5:

Corollary 2 *If H is sufficiently large and parties are able to limit transfers, it is optimal to couple undivided control with such limits.*

For the rest of the paper, we make the standing assumption that H is large enough for the conclusion of Proposition 2.

When control is undivided and the manager cannot demand transfers, it is in the manager's interest to generate proposals that are potentially productive. Moreover, the manager chooses to implement a proposal whenever $m_i \geq 0$. The cost of restrictions on transfers is that the manager implements unproductive proposals whenever they redistribute sufficient wealth. Let \tilde{U} denote the joint expected surplus when control is undivided. The joint surplus is $2\pi_g$ if the state is good, $2\pi_b$ if the state is bad and $m_b \geq 0$, and zero otherwise. So,

$$\tilde{U} = 2[q\pi_g + (1 - q)\Pr[m_b \geq 0]\pi_b] \quad (7)$$

If control is shared, veto power over the manager's proposals protects the stakeholder from unproductive rent-seeking. There is consequently no need to disallow transfers as such transfers

facilitate improve ex post decision-making. *Participation in control is therefore a substitute for the protection afforded by restrictions on transfers.*

Given the limits on transfers, there is no ex post bargaining when control is undivided. Bargaining costs thus impact shared control and undivided control asymmetrically. Define $\tilde{P}_u \equiv \Pr[m_b \geq 0]$. From equations (3) and (7), we have that

$$\tilde{U} - S = 2[q(1-z)(1-P_s)\pi_g + (1-q)\tilde{P}_u\pi_b] \quad (8)$$

An implication of equation (8) is

Proposition 6 *Suppose undivided control is associated with limits on transfers. As the stakeholder becomes better informed (z increases), there is a corresponding increase in the benefit of shared control and no change in the benefit of undivided control.*

Under shared control, the stakeholder has input into the decision-making process and can use his information to improve the quality of decisions by blocking bad projects. In contrast, when control is undivided, the stakeholder has no influence on the manager's decision-making regardless of how informed she is. The degree to which the stakeholder is informed is therefore an important determinant of the optimal control structure.

Similarly, it is no longer the case that an increase in either the variability of the redistribution, σ^2 , or in the mean level of redistribution \bar{r} impacts shared and undivided control in similar ways. Recall from Corollary 1 that the value of shared control control is decreasing in σ^2 . In contrast, undivided control may actually increase in the variability of r and decreases in the average level of redistribution:

Lemma 1 *If control is undivided and there are limits on transfers, then as σ^2 increases, the manager adopts fewer bad proposals, which raises the total surplus from adopted projects if and only if $\bar{m}_b = \pi_b + \bar{r} \geq 0$. In addition, \tilde{U} is decreasing in the mean level of redistribution \bar{r} .*

Proof. The impact of σ^2 on the value of undivided control depends on whether the likelihood the manager pursues a bad proposal, $\Pr[\bar{m}_b + \sigma\epsilon \geq 0] = \Pr[\bar{m}_b/\sigma + \epsilon \geq 0]$ increases or decreases. The manager is less likely to pursue a bad proposal as σ^2 increases if and only if $\bar{m}_b \geq 0$.

Lemma 1 implies that if the redistributive consequences of proposals are large ($\bar{r} \geq |\pi_b|$), undivided control becomes more favorable relative to shared control as the variance of redistribution σ^2 becomes large. Intuitively, when the manager has a bias toward implementing the project, increasing the mass in the positive tail of the distribution r has no impact on his decision-making; however, increasing the realizations in the negative tail causes the manager to shift towards maintaining the status quo. As already discussed, simply shifting the mean level of redistribution has no impact on

shared control (nor undivided control when there is bargaining). However, when there are limits on transfers, an increase in \bar{r} increases the likelihood that the manager pursues a bad proposal when control is undivided. The following result is a direct implication of Corollary 1 and Lemma 1:

Proposition 7 *If H is sufficiently large and $\bar{r} \geq |\pi_b|$, then an increase in σ^2 favors undivided control, i.e., $\tilde{U} - S$ is increasing in σ^2 . Moreover, an increase in the mean level of redistribution favors shared control, i.e., $\tilde{U} - S$ is decreasing in \bar{r} .*

The comparative statics on the likelihood that projects are good, q , the surplus generated by a good proposal, $2\pi_g$, and the value destroyed by a bad proposal, $2|\pi_b|$, remain unchanged when there are limits on transfers. Namely, an increase in q favors shared control and changes in the surplus associated with good and bad projects have an ambiguous effect on $\tilde{U} - S$. When control is undivided and there are limits on transfers, the effect of an increase the value destroyed by a bad proposal is similar to case with bargaining. In particular, the manager is less likely to implement a bad proposal, although it is more costly when he does so.

5 Control and Proposal Generation

Thus far, we have assumed that both project quality and the level of redistribution is exogenous (conditional on the manager not engaging in pure rent-seeking). In this section, we assume that the likelihood the manager generates a good proposal and amount of redistribution is increasing in his effort. Specifically, at cost $C(q, \bar{r})$, the manager generates a productive proposal with probability q and the mean level of redistribution is \bar{r} .⁸ We assume that $C(q, \bar{r})$ is increasing in both q and \bar{r} and that $\frac{\partial C(q, \bar{r})}{\partial q \partial \bar{r}} \geq 0$, implying that redistributive effort is a substitute for productive effort. For simplicity, we also assume that the stakeholder can observe the manager's effort decisions, but that these effort decisions are not contractible.

When control is undivided, the manager's payoff is given by:

$$U_m = qE[m_g] + (1 - q) \Pr[m_b \geq 0]E[m_b | m_b \geq 0] - C(q, \bar{r}) \quad (9)$$

When control is shared and the stakeholder is informed, recall that the manager must pay a transfer $y_s = -s_g$ to obtain approval for a good proposal. The manager's payoff is thus $m_g - y_s = 2\pi_g$ (the manager extracts the full surplus). The manager must pay t_s to obtain approval for a good proposal when the stakeholder is uninformed, where t_s satisfies equation (2). Conditional on obtaining approval, equation (2) implies that the manager again extracts the full surplus. The probability that the manager obtains approval is $\Pr[m_g - t_s \geq 0]$. Let t_{s0} denote the transfer

⁸As before, the manager can engage in extortion instead of generating productive proposals.

the manager must pay when $\bar{r} = 0$ and the stakeholder is uninformed. It is easy to verify that $t_s = t_{s0} + \bar{r}$. The manager's payoff when control is shared is therefore:

$$S_m = S \equiv 2q\pi_g[z + (1 - z)\Pr[\pi_g \geq t_{s0}]] - C(q, \bar{r}) \quad (10)$$

Let (q_u, \bar{r}_u) and (q_s, \bar{r}_s) be the manager's effort decisions when control is undivided and shared, respectively. Equation (10) implies that the manager obtains no benefit from exerting redistributive effort. In particular, the stakeholder makes the manager pay for the expected level of redistribution to obtain approval for a good proposal. It follows that $\bar{r}_s = 0$, giving us the next result. In addition, the benefit of generating a good project is decreasing in both z and σ^2 , giving us the next proposition:

Proposition 8 *If control is shared, the manager does not exert redistributive effort. In addition, the manager increases his productive effort as the stakeholder becomes better informed or as variability in the level of redistribution decreases.*

An implication of Proposition (8) is the following:

Corollary 3 *The manager exerts greater redistributive effort when control is undivided.*

These results are in contrast to those Aghion and Tirole (1997), in which delegation of control to an agent leads to greater productive effort or initiative on behalf of the agent. In our analysis, increasing managerial control unambiguously leads to greater unproductive rent-seeking and has an ambiguous effect on productive effort. However, if the stakeholder is sufficiently informed or distributional consequences of decisions are easy to assess in advance (z is large or σ^2 is small), shared control also leads to greater productive effort.

6 Incentives and Control

In this section, we allow the parties to contract on the surplus generated within the firm, $2\pi_i$ (we return to baseline case in which q and \bar{r} are exogenous). Specifically, the parties can allocate a share of α of the surplus to the manager, so that the payoffs of the manager and stakeholder are $m_i(\alpha) = \alpha 2\pi_i + r$ and $s_i(\alpha) = (1 - \alpha)2\pi_i - r$. It is clear from equation (7) that when there are limits on transfers and control is undivided, an increase in α induces the manager to implement fewer bad proposals. In the absence of any constraints on the choice of α , it is optimal to set $\alpha = 1$ and make the manager the full residual claimant; however, externalities remain as a consequence of the non-contractible redistribution r .

In contrast, changes in α have no impact on the surplus associated with shared control:

Proposition 9 *The expected surplus associated with shared control is independent of the manager’s share of the realized surplus α . On the other hand, if there are limits on transfers, the value of undivided control, \tilde{U} , is increasing in α .*

Proof. Fix α_0 and suppose that in equilibrium the manager must pay the stakeholder a transfer t_0 to obtain approval for a good proposal, i.e., t_0 solves equation (2). The probability that a good proposal is blocked is $\Pr[m_g(\alpha_0) < t_0]$. Consider an ownership share $\alpha_1 \neq \alpha_0$, and let $t_1 = t_0 + (\alpha_1 - \alpha_0)\pi_g$. t_1 solves equation (2) and $\Pr[m_g(\alpha_1) < t_1] = \Pr[m_g(\alpha_0) < t_0]$, completing the proof.

As is intuitive, incentives are complementary with control: if the manager has unfettered control, it is optimal to couple that control with strong incentives. However, this result is a consequence of the limits on transfers. If there are no such limits, changes in α have no impact both when control is undivided and shared.

7 Discussion

In this section, we first discuss the concept of good faith and the extent to which courts limit the ability of parties to engage in extortionate bargains. Subsequently, we discuss how the implications of our model apply to debt contracting, minority shareholder protections in closed corporations, and employee control in firms.

Good Faith and Fair Dealing

In Section 4, we assume that the manager and stakeholder can commit not to engage in ex post bargaining when control is undivided. When the manager has a fiduciary responsibility to the stakeholder (as when the stakeholder is a shareholder), then it is clear that demanding a transfer as payment for not taking a value-destroying action would violate the manager’s obligations to the stakeholder. However, courts (in the U.S.) also disallow certain types of agreements in non-fiduciary relationships, such as that between management and creditors. In particular, Hetherington (1972) states that “[i]n the name of good faith, fair dealing, and similar concepts, the courts have imposed limits on the bargaining process and on the exercise of contract and property rights in non-fiduciary business dealings” (p. 926). The law requires that in any contractual relationship the parties act in good faith. One prominent formulation of the duty of good faith is by the New York Court of Appeals, which stated that in “every contract there is an implied covenant that neither party shall do anything which will have the effect of destroying or injuring the right of the other party to receive the fruits of the contract” (see Bab, 1991, p. 861).

Summers (1968) outlines various acts that constitute “bad faith” and thus violate this implied

covenant, including abuse of bargaining power, failure to fulfill the spirit of a contract, lack of diligence, exploiting another party's weakness to obtain a favorable readjustment to a contract, abuse of power to specify any contract terms (that the parties left unspecified at the outset). In addition, threats of harm through an otherwise legal action may also violate the covenant of good faith. Although implicit threats are a common bargaining tactic, there is a boundary beyond which this kind of behavior is illicit. In particular, the courts have disallowed parties from obtaining concessions by threatening to take an action, where the *sole* purpose of the action is to impose harm. Hetherington provides examples of in which the "illegality of the conduct in each case appears to lie in the effort of one party to influence future conduct by threatening deliberate injury to an existing contractual or property right or business interest of the other party" (p. 932). In one such example, a buyer of a house in a residential community sought to obtain a refund from the builder by threatening to in turn resell the property to an "undesirable" purchaser.

In the context of our model, we argue that the legal limits on bargaining tactics rule out threats by the manager to take value-destroying in order to obtain rents from the stakeholder (we provide an efficiency-based explanation for why such limits are indeed optimal). However, we argue that such limits do not stop the manager from actually proceeding with a value-destroying proposal when in his interest. The premise of our analysis is that whether a proposal is value-destroying or not is difficult, if not impossible, to verify by the courts (otherwise the parties would agree in advance to implement only value-creating proposals). However, if the manager demands concessions in exchange for not implementing a proposal, the manager is effectively acknowledging that the proposal is harmful. There are only a limited set of circumstances in which management can legitimately extract concessions by threatening to pursue a certain course of action. For example, firms in financial distress can threaten to declare bankruptcy to induce creditors and unions to renegotiate their contracts (see Bab for a discussion of whether this kind of pressure in the case of bondholders violates the duty of good faith). In the following subsections, we discuss how our model applies to specific relationships in firms.

Debt Contracts

Three critical aspects of any debt contract are the cost of capital (interest rates), the maturity of the debt, and any covenants associated with the debt. Lender can increase their effective control over a firm by shortening debt maturities (forcing firms to refinance and renegotiate their agreements more frequently) and using covenants. Covenants place limits on a potentially broad range of activities and decisions. For example, covenants may limit the payment of dividends to shareholders, limit a firm's leverage, limit both the sale and acquisition of assets, and require firms to maintain a certain line of business. Covenants may even limit decision rights considered a defining

aspect of ownership, including the right to make changes to the management team and the board.

Covenants give lenders an effective veto right over any decision that results in the violation of a covenant; to proceed with such a course of action, management must either obtain a waiver from lenders or must refinance the debt. In our model, the stakeholder receives veto rights over a decision only if such rights lead to greater firm value. If undivided control maximizes firm value, but causes harm to the stakeholder in the form of redistribution, the manager must compensate the stakeholder through transfers.⁹ In the context of debt contracting, lenders thus tradeoff stronger control rights with higher promised rates of return (Roberts and Bradley (2004) provide empirical evidence supporting the negative relationship between yields and the restrictiveness of covenants).

It is common for covenants to trigger renegotiation between lenders and firms and for lenders to demand concessions in exchange for waiving covenants. Beneish and Press (1993) empirically analyze the cost to firms of violating an accounting-based covenant. The majority of firms in their sample obtain waivers in exchange for substantial increases in interest rates and other fees. Lenders also frequently obtain greater control in the form of additional covenants. The authors also show that firms unable obtain waivers suffer greater costs. Such firms typically either refinance their debt at significantly higher interest rates or must divest assets to pay down their debt.

While firms often seek waivers of onerous covenants, it is much more difficult to identify cases in which firms demand concessions from lenders in exchange for refraining from taking an action *not* constrained by any covenant. As discussed above, although managers do not have a fiduciary duty to lenders, managers are still required to act in good faith with respect to their contractual obligations to lenders. Demanding concessions in exchange for not taking a value-destroying investment would arguably be deemed as coercive, violating the duty of good faith.

If such an investment benefits shareholders (at the expense of debtholders), managers are more likely to simply proceed with the investment rather than negotiate with debtholders. There are certain circumstances in which borrowers can extract concession from lenders. For example, Bab and Coffee and Klein (1991) discuss how firms seeking to repurchase their debt can use various techniques to pressure bondholders to tender their bonds (at a premium to the current market value, but below the face value); as mentioned above, one technique is for firms to threaten to declare bankruptcy. As Bab argues, the extent to which firms can extract rents from bondholders through this type of pressure is limited at best.

Given the asymmetry in renegotiation, our model predicts that covenants are favored to extent that renegotiation yields efficient outcomes. In particular, if bargaining is costless and efficient,

⁹It is not essential that these payments be made *ex ante*; they could be in principle be made at any date. Since we allow arbitrary transfers, an implicit assumption is that the parties have sufficient wealth (or expected wealth) to make any promised payments. In the context of debt contracting, we are thus assuming that management has sufficient collateral to support any promised future transfers.

then it is always optimal to impose restrictive covenants and negotiate waivers ex post.¹⁰ In our theory, the probability that the stakeholder is informed (z) is a critical determinant of bargaining costs. There is a lower likelihood of bargaining breakdowns as the stakeholder becomes better informed. Our theory thus predicts that private debt issued by sophisticated lenders, such as banks, should offer debt with more restrictive covenants relative to public debt to the extent that the average holder of publicly traded bonds is less informed than the average bank. Moreover, for administrative reasons, it is more difficult to renegotiate debt that is widely held than debt concentrated among a few banks. In their detailed study of privately placed debt, Carey et. al. argue that private lenders both engage in greater due diligence and information acquisition than public bondholders and impose tighter covenants. Gilson and Warner (1998) and Roberts and Bradley also provide evidence that bank debt has more restrictive covenants than public debt.

Another implication of our model is that shared control is favored as the probability that the manager proposes value-creating projects (q) increases. Nash, Netter and Poulsen (2003) show that the debt contracts of firms with potentially high future growth opportunities are less likely to contain provisions that limit the ability of these firms to raise additional finance in the future.¹¹ The authors also show that firms with a high likelihood of financial distress are more likely to borrow with restrictive covenants. As a firm's value declines and its leverage increases, management has greater incentives to take on risky projects, regardless of whether such projects have a negative or positive net present value. In our model, such a situation is consistent with a lower probability that proposals are value-creating (low q) and a higher average level of redistribution (high \bar{r}), implying greater sharing of control.

Closed Corporations

It is frequently argued that minority shareholders in closely held corporations are particularly vulnerable to exploitation (see, for example, O'Neal and Thompson, 1985, and Hetherington and Dooley, 1977). Unlike most large publicly traded corporations in the U.S., closely held corporations frequently have a single shareholder or a strong coalition of a few individuals that control a majority of the shares. Moreover, both majority and minority shareholders are commonly employees of the

¹⁰A recent paper by Zwiebel and Garleanu (2006) seeks to explain why debt contracts often have tight covenants that are renegotiated (rather than having renegotiation in the absence of a covenant). Intuitively, in their theory, firms signal project quality by granting creditors control, leading to a situation in which covenants are tight. The authors reject the notion that renegotiation in the absence of a covenant is any different (or any more "unseemly") from renegotiation in the presence of a binding covenant. However, as we argue, if there were no prohibitions on renegotiation management would have almost unlimited possibilities of extracting rents from creditors by manufacturing bad projects. Certainly, creditors can also abuse their power, but their powers are limited to withholding approval of a management proposal (limiting renegotiation would thus have high costs with only limited benefits). Our reading of the legal literature on this subject suggests that the law indeed recognizes that protections are critical precisely when there is a large imbalance of power.

¹¹Roberts and Bradley note that while such firms retain flexibility to obtain future financing, they are more likely to have restrictive covenants in other respects.

firm, making the parties particularly dependent of the firm and creating additional conflicts of interests. One manor of exploitation occurs when the majority takes value out the firm (by, for example, paying inflated salaries to controlling parties or by selling assets below fair value to related-parties) and does not pay dividends, making it difficult for the minority to realize any tangible value from its ownership stake.

One way of mitigating the risk of exploitation is to give minority shareholders veto rights over those decisions for which the potential for abuse is severe. As O’Neal and Thompson and Easterbrook and Fischel (1986) discuss, veto rights create the potential for deadlock. A concern that arises is that a minority shareholder with veto rights, in turn, has the power to extort concessions from the majority. However, as Hetherington and Dooley argue, the power to withhold approval nonetheless makes the “exploitative opportunities of the minority... much more limited than those of the majority” (p. 4).

Our theory suggests that veto rights are desirable when minority shareholders are well informed and for those decisions in which the expected level of redistribution is high. Venture capitalists provide a good illustration of how sophisticated investors structure their investments in closed corporations. Kaplan and Stromberg (1999) show that venture capitalists typically have voting rights that exceed their cash-flow rights. Venture capitalists are usually represented on the board and, in addition, retain the right to approve a certain number of outsiders on the board, giving VC’s significant board control. Beyond direct board representation, VC contracts contain provisions that give VC’s the right to approve major corporate actions, including sale of stock and payment of dividends. Interestingly, Stevenson (2001) discusses how VC reduce the potential costs of deadlock, by incorporating tie-breaking provision in their contracts (such as compulsory arbitration).

Kaplan and Stromberg (1999) also document that the control rights of VC’s are contingent on performance, so that a VC’s ability to control decisions decreases if a firm performs well. One potential explanation for this evolution of control rights is given by Aghion and Bolton (1992). In their model, investors take greater control in bad states of the world to ensure that they receive a sufficient rate of return (this change of control would be unnecessary if the entrepreneur were not wealth constrained). Our model does not provide a dynamic theory of control, but a natural extension would be to allow investors to update their beliefs about the average quality of an entrepreneur’s proposals (q). In such an extension, strong performance would cause VC’s to increase their assessment of proposal quality and grant entrepreneurs greater control.

As Stevenson emphasizes, the VC approach to conflicts in closed corporations depends heavily on the legal and financial sophistication of VC’s. To increase the protection of minority shareholders, some states have imposed an “enhanced” fiduciary duty on the majority and are more likely to intervene in cases in which otherwise legitimate transactions harm the minority. This approach in

principal reduces the need to grant the minority veto power and reduces the associated costs of deadlock, but is effective only insofar the courts can in fact identify exploitative behavior.

Employee Control

Hansmann (1996) emphasizes that a barrier to employee control of firms is the heterogeneity of interests among employees. In particular, management decisions will typically impact some groups of employees differently than other groups of employees. For example, the decision to close a particular plant or to cut a certain product line and reinvest resources elsewhere hurts some workers, while potentially benefiting other workers. Serious distributional conflicts also arise over whether to distribute earnings in the form of wages or dividends when employees are also equity holders; employees with a greater share of the equity will favor dividends relative to employees with minimal equity. Interestingly, Hansmann observes that even when employees hold a significant share of a firm's equity through employee stock ownership plans, firms typically structure the plans to *minimize* employee participation in corporate governance. Hansmann provides examples of firms in which employees own 100% of the stock, but which are effectively “operated as nonprofit institutions in which [self-perpetuating] directors... are charged with managing the firm as fiduciaries for the benefit of employees” (p. 107).

In the context of our model, we interpret such an arrangement as undivided control by management. Specifically, suppose the “manager” represents a self-interested board that has the mandate to maximize the total welfare of employees, but also derives private benefits of control. In addition, suppose the “stakeholder” represents a particular group of employees with significant equity in the firm. Our theory suggests that undivided control is optimal if the distributional consequences of decisions are highly variable (high σ^2), there is asymmetric information about the extent of redistribution (low z), and if conflicts of interest are not too severe (i.e., if q is not too low and \bar{r} is not too high). It is important to emphasize that heterogeneity in interests as measured by \bar{r} favors *shared* control. It is when the differential impact of decisions on stakeholders is highly variable and hard to measure that undivided control is desirable.

As discussed above, investment decisions commonly have large distributional consequences for employees, and these consequences may be extremely difficult to assess; moreover, parties frequently have disparate information regarding these consequences. For example, a source of conflict between management and workers often involves the implementation of a new technology in the workplace, which has the potential to displace certain groups of workers. In this example, management may have better information on the long-term consequences of the technology (in other circumstances, workers may in fact have better information about their priorities and thus the costs associated with a particular policy). Consistent with Hansmann's observations about limited employee decision-

making, our theory suggests that granting employing voting rights over these types of decisions results in lower firm value. In particular, the inefficiencies in decision-making associated with an unconstrained board is lower than the costs of inefficient decision-making due to bargaining failures.

8 Conclusion

In this paper, we show that bargaining frictions alone have extremely few implications for how a firm's decisions are governed. This result is a consequence of the fact that the allocation of control affects only the direction of transfers and does not reduce the importance bargaining. However, if there are limits on the types of negotiations that can take place, then bargaining frictions play an important role in the allocation of control.

Certain negotiations are extortionary in nature as when one party demands a payment in exchange for not taking a value-destroying action. Allowing managers to make such demands rewards rent-seeking activity. For this reason, it is often optimal to either explicitly or implicitly restrict the demands a manager can make. An example of a "contract" that effectively limits the ability of executives to engage in these types of negotiations and extract rents is an executive's fiduciary responsibility to shareholders. More generally, any contract between parties imposes a duty of fair dealing, which rules out demands that are obviously extortionate.

In our model, these limits are only necessary when control is undivided. When control is shared, the parties have mutual veto power, eliminating the need for additional protections. The following equilibrium emerges: when control is undivided, there is no bargaining and the controlling party unilaterally makes decisions; when control is shared, the parties bargain over the appropriate course of action.

In choosing between these governance structures, bargaining frictions play a major role. The cost of undivided control is that the controlling group—management in our model—pursues the agenda that favors their interests, which may lead to value-destroying projects. Giving other parties veto rights imposes discipline on the controlling group, but may also lead to deadlock and the blocking of good proposals as a consequence of bargaining problems. We show that the potential for bargaining breakdowns is most severe when the distributional consequences of decisions are difficult to foresee in advance (i.e., highly variable) and there is a large disparity in the information of parties. Shared control among parties is therefore superior to undivided control when the decisions have predictable consequences or both parties are equally informed and sophisticated.

In our theory, there are essentially two types of protections for stakeholders: veto rights and a fiduciary-like duty of management not to engage in certain forms of rent-extraction. However, stakeholders have other instruments at their disposal, including the threat of exit and the right to

select management's compensation. The threat of exit may give a stakeholder effective veto rights, and control over management's compensation obviously enables a group to influence decision-making. A challenge for future research is incorporate these instruments in order to obtain a more accurate representation of how relationships are governed within firms.

References

- Aghion, P. and P. Bolton (1992). An incomplete contracts approach to financial contracting. *Review of Economic Studies* 59, 473–94.
- Aghion, P. and J. Tirole (1997). Formal and real authority in organizations. *Journal of Political Economy* 105, 1–29.
- Bab, A. L. (1991). Debt tender offer techniques and the problem of coercion. *Columbia Law Review* 91(4), 846–890.
- Beneish, M. D. and E. Press (1993). Costs of technical violations of accounting-based debt covenants. *The Accounting Review* 68(2), 233–257.
- Bradley, M. and M. R. Roberts (2004). The structure and pricing of corporate debt covenants. SSRN Working Paper.
- Carey, M., P. Stephen, J. Rea, and G. Udell (1993). The economics of the private placement market. *Federal Reserve Board Staff Study*.
- Coffee, J. C. and W. A. Klein (1991). Bondholder coercion: The problem of constrained choice in debt tender offers and recapitalizations. *University of Chicago Law Review* 58(4), 1207–1273.
- Easterbrook, F. H. and D. R. Fischel (1986). Close corporations and agency costs. *Stanford Law Review* 38(2), 271–301.
- Garleanu, N. and J. Zwiebel (2006). Design and renegotiation of debt covenants. *Review of Financial Studies*, forthcoming.
- Gilson, S. C. and J. B. Warner (1998). Private versus public debt: Evidence from firms that replace bank loans with junk bonds. SSRN Working Paper.
- Grossman, S. and O. Hart (1986). The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of Political Economy* 94(4), 691–719.
- Hansmann, H. (1996). *The Ownership of Enterprise*. Harvard University Press.

- Hart, O. and J. Moore (1990). Property rights and the nature of the firm. *Journal of Political Economy* 98, 1119–58.
- Hetherington, J. A. C. (1972). The minority duty of loyalty in close corporations. *Duke Law Journal* 1972(5), 921–946.
- Hetherington, J. A. C. and M. P. Dooley (1977). Illiquidity and exploitation: A proposed statutory solution to the remaining close corporation problem. *Virginia Law Review* 63(1), 1–75.
- Kaplan, S. N. and P. Stromberg (2003). Financial contracting theory meets the real world: An empirical analysis of venture capital contacts. *Review of Economic Studies* 70(2), 281–315.
- Nash, R. C., J. M. Netter, and A. B. Poulsen (2003). Determinants of contractual relations between shareholders and bondholders: investment opportunities and restrictive covenants. *Journal of Corporate Finance* 9(2), 201–232.
- O’Neal, F. H. and R. B. Thompson (1985). *O’Neal’s Oppression of Minority Shareholders*. Callaghan & Co.
- Stevenson, S. W. (2001). The venture capital solution to the problem of close corporation shareholder fiduciary duties. *Duke Law Journal* 51(3), 1139–1178.
- Summers, R. S. (1968). “Good faith” in general contract law and the sales provisions of the uniform commercial code. *Virginia Law Review* 54(2), 195–267.
- Williamson, O. E. (1985). *The Economic Institutions of Capitalism*. The Free Press.