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Monitors and Freeriders in Commercial and Corporate Settings

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The usefulness of private arrangements and legal rules for the maintenance and promotion of social and economic relationships depends, in great part, on their effective enforcement. Enforcement, however, is not possible unless violations are first detected. It therefore seems critical to consider the ability and motivation of legal actors to monitor each other's behavior.[1]

The level of monitoring in a simple two-party transaction is likely to be efficient. The monitor will continue to expend effort as long as his cost of doing so is less than his expected benefit. But when there are many potential monitors with overlapping interests, the optimal level may prove more elusive. An individual seeking to reduce his own monitoring costs may attempt to rely on the efforts of others; such "freeriding,"[2] if widespread, will lead to undermonitoring. Overlapping interests can also lead to duplicative efforts on the part of potential monitors. From an economic perspective, both undermonitoring and overmonitoring are undesirable.[3]

This Article considers the possibility that legal relationships and rules relieve monitoring difficulties, including the freeriding problem, and thereby promote joint enterprises. In particular, it examines the role that monitoring plays in commercial and corporate settings. Part I considers the role of security interests in determining creditor priorities in bank-

† Assistant Professor of Law, University of Virginia. I am much indebted to Michael Dooley, Roberta Romano, and Robert Scott for their patient counsel and helpful suggestions, and to Anthony Kronman for stimulating my interest in some of the topics discussed in this Article.

1. The law and economics literature has recently begun to examine the role of monitoring in legal contexts. Most of the interest in this area can be traced to Jensen & Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976). Other relevant works include: Anderson, *Conflicts of Interest: Efficiency, Fairness and Corporate Structure*, 25 U.C.L.A. L. REV. 738 (1978); Goetz & Scott, *Principles of Relational Contracts*, 67 VA. L. REV. 1089, 1091-94 (1981); Jackson & Kronman, *Secured Financing and Priorities Among Creditors*, 88 YALE L.J. 1143 (1979); Shavell, *Risk Sharing and Incentives in the Principal and Agent Relationship*, 10 BELL J. ECON. 55 (1979); Smith & Warner, *Bankruptcy, Secured Debt, and Optimal Capital Structure: Comment*, 34 J. FIN. 247 (1979).

2. Although the term "freerider" generally refers to someone who relies on the efforts of others and not to someone who expends duplicative efforts, it is used throughout this Article to include both. The freeriding problem is thus taken to be the problem of inefficiency.

3. Both raise the cost of economic interaction. Comparing the level of effort of a group of monitors against the monitoring level of a single hypothetical monitor is similar to the familiar technique of analyzing pollution levels or other externalities against the behavior that would be generated by "internalizing" that externality. *See* W. NICHOLSON, MICROECONOMIC THEORY 518 (1972).

ruptcy. It demonstrates that the freeriding problem is solved if unique monitoring tasks can be assigned to secured creditors. The discussion suggests that the observed monitoring role of secured and unsecured creditors is consistent with a debtor's attempt to minimize its interest costs. Part II describes how a corporation's financial structure is responsive to monitoring and freeriding considerations. It argues that secured creditors, bondholders' trustees, and, to a lesser extent, preferred shareholders provide common shareholders with useful information about managerial misbehavior. Thus, the presence of these actors can reduce the corporation's cost of raising capital. Both the discussion of secured credit and of the corporate financial structure indicate that economic arrangements can be shaped by monitoring and freeriding considerations.[4]

In Part III, the Article adopts a normative perspective and suggests that legal rules should give proper weight to the role played by monitors. As examples of how the law should be cognizant of monitoring issues, this Part discusses the sale of corporate control and the role of creditor standing and provides a framework for the analysis of rules in these and other areas.

I. The Role of Secured and Unsecured Creditors

Because private legal relationships are normally the product of bilateral bargains, efficient monitoring arrangements are important to both the monitoring and monitored parties.[5] In the language of agency, a principal will benefit from ease in uncovering instances of actual or potential misbehavior by his agent; an agent who is difficult to monitor will have comparative difficulty securing employment by principals. The relationship between a secured creditor and debtor is one such principal-agent arrangement.

4. For example, firms might find that some credit structures allow expansion at a lower cost, or, perhaps, firms that happened to adopt more efficient mixes of debt and equity, from a monitoring cost perspective, might survive their competitors. Such an "evolutionary theory" of private arrangements is much less vulnerable than an evolutionary theory of legal rules.

5. Because all contractual relationships follow explicit or implicit bargains, the "bilateral" nature of this large class of legal relationships is superficially obvious. But the discussion in this Article considers many long-term contractual relationships in which parties have reason to be concerned about one another's behavior. *See generally* Goetz & Scott, *supra* note 1, at 1090-91 (contracting parties face intricacies and uncertainties that require specially adapted contractual devices). Many noncontractual relationships also generate mutual monitoring concerns because the parties might consider altering the terms of their interaction by entering into a contract. *See* Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1118 (1972) (using entitlement to pollute as example of noncontractual rule that can be changed by bargain).

A. *The Need to Monitor the Debtor*

From the creditor's perspective, fears of debtor misbehavior, that is, that the debtor will break promises made to the creditor, can be allayed by a sufficiently high interest rate. The debtor's first creditor, *C1*, will, for example, be made worse off if the debtor arranges an additional loan with another creditor, *C2*. The increased debt intrudes upon the equity cushion previously enjoyed exclusively by *C1*.[6] In addition, *C1*'s claim is devalued to the extent that *C2*'s claim is accorded priority, either with respect to a specific asset or over *C1*'s entire claim.[7] Before agreeing to the loan, however, *C1* can require an interest rate sufficiently high to feel compensated for the potential interposition of creditors in the receiving line.[8] Ultimately, a creditor may be indifferent between being paid a high interest rate by a debtor with a high expected debt-equity ratio and being paid a low interest rate by a debtor with a low debt-equity ratio.

It is instead the debtor's perspective that is important to an understanding of the structure of business loans, because it is the debtor that benefits from reduced interest expenses. Inasmuch as creditors fear broken promises that in effect lower the interest rate ex post,[9] it is in the debtor's interest to lessen these fears by offering a package of promises that creditors can easily monitor and therefore trust.[10]

There are many factors that potentially affect a creditor's risk and return and many promises that a debtor might make to its creditors. Consequently, there are many categories of potential debtor misbehavior. This discussion focuses on the two most important types of misbehavior: con-

6. The value to a secured creditor of an equity cushion is a function of bargaining and information costs. If, for example, the creditor were aware of the debtor's insolvency as soon as it occurred and were able to extract interest payments in advance or on a daily basis, there would be no need for any cushion; at the moment of insolvency the creditor would take back property equal in value to his loan. More realistically, the creditor is better off with a larger equity cushion beneath his claim.

7. If the value of *C2*'s collateral decreases and no longer covers the amount of the loan, then *C2* will share in the equity cushion enjoyed by *C1*.

8. A creditor may be satisfied with a portfolio of loans that effectively diversifies debtor misbehavior and fortunes. For a discussion of risk diversification, see W. KLEIN, BUSINESS ORGANIZATION AND FINANCE 151-55 (1980).

9. Had the creditor known that more debt would be assumed, it would have required a higher interest rate ex ante.

10. The contractual relationship is, of course, mutually advantageous. But, for expository reasons, the discussion regards the debtor as the initiator of the credit arrangement because the debtor bears the costs of the agency relationship and therefore gains from reducing them. *See* Jensen & Meckling, *supra* note 1, at 313-19. Agency costs can be reduced by "bonding" and "monitoring." *See id.* at 308. Bonding activities are those which the agent undertakes to demonstrate its trustworthiness or make the principal's policing task easier. Thus, the agent might employ a reputable auditor to provide information to its principal. Monitoring activities are efforts by the principal to limit agent misbehavior. Because so many activities involve a mixture of efforts and because pure bonding expenditures are rare, the discussion in this Article does not adopt the suggested distinction and instead combines the efforts of both the principal and the agent in the term "monitoring."

version and risk alteration.[11] Conversion occurs when an individual or group that is involved in the management of a firm takes company assets and uses the proceeds for its own benefit.[12] Risk alteration takes place when a debtor switches to a riskier business strategy after loans from its creditors have been made final. In doing so, it gambles with creditors' funds; when the business does poorly, all investors lose, but when it succeeds, the debtor pays only fixed charges to creditors and keeps the remaining "upside return." Creditors may, therefore, require a promise that the debtor will not switch to a riskier line of business. They may even retain the right to call in a loan on demand so that they can terminate the financing relationship when risk rises to the point at which the negotiated interest rate is unattractive.

Neither of the major forms of managerial misbehavior is necessarily apparent to the passive creditor. For example, a creditor whose monitoring is limited to clipping coupons and noticing nonpayments may be unable to detect the embezzler whose misappropriations chip away at the creditor's cushion and increase the risk of future shortfalls. Similarly, the passive creditor cannot be expected to know when the debtor firm's managerial decisions increase the volatility of its business fortunes and the probability of default. Yet these possibilities are of concern to every creditor and therefore require active monitoring of the debtor.

B. *Relative Monitoring Talent: The Jackson-Kronman Model*

The explanatory power of monitoring theory—excluding freeriding considerations for the present—was recognized by Professors Jackson and Kronman in the context of Article 9 of the Uniform Commercial Code.[13] They tried to explain why, despite significant administrative costs, secured transactions are so popular. The existence of secured financing might seem counterintuitive at first because any advantage enjoyed by a secured creditor able to satisfy a claim with a particular asset in an exclusive way[14] is offset by the corresponding disadvantage of unsecured creditors who are then further removed from assured repayment. Any savings in interest costs to a debtor that grants a security interest to one creditor

11. In fact, virtually all conceivable types of debtor misbehavior contain elements of conversion or risk alteration. *C1* might fear, for example, that the debtor prefers *C2* to the detriment of *C1*, even if the debtor itself does not benefit directly through conversion. This fear, however, concerns risk alteration because, ex ante, *C1* is as likely to be preferred as disfavored. Similarly, a creditor might fear that interest payments will be missed because of careless or purposeful debtor behavior, but such a fear ultimately involves implicit conversion or risk alteration (with respect to the timing of the payments).

12. Conversion affects not only creditors but also outside shareholders.

13. Jackson & Kronman, *supra* note 1.

14. The power of a security interest derives mostly from the priorities it is granted. *See* U.C.C. §§ 9-312 to -316 (1977).

would appear to be exactly offset by the increased interest requirements of other less-favored creditors.[15]

Jackson and Kronman sought to explain secured transactions by focusing on the *relative* monitoring costs of concerned creditors and suggesting that some creditors—in particular, trade suppliers—may be able to monitor the debtor more cheaply than other creditors.[16] A financing system that differentiates between secured and unsecured creditors allows monitoring tasks to be assigned efficiently; relatively "untalented" monitors are able to shy away from monitoring and become secured creditors while their more "talented" counterparts bid for employment as monitors through the unsecured interest rate. The total interest costs of the debtor will then be less than they would be with just one class of creditors. The Article 9 system can thus be viewed as establishing the set of rules that all three parties (debtor, talented creditor, passive creditor) would reach in the absence of transaction costs.[17]

Unfortunately, the Jackson-Kronman explanation of security interests is not satisfactory. As Professor Alan Schwartz has recently argued, many, if not most, actual unsecured creditors appear to be relatively inferior monitors.[18] It is likely, for example, that a large debtor's banker is better able to police the debtor's post-loan risk-taking than are its employees or occasional suppliers.[19] Yet, such banks are frequently secured creditors. The literature on monitoring cost theory simply does not explain typically observed credit arrangements.

C. *The Impact of Freeriding*

The shortcomings of current monitoring cost theory derive in part from its lack of attention to the problem of freeriding. Consider again the need for *C1* to be wary of debtor misbehavior. Why should *C1* expend resources attempting to discover such misbehavior? *C2* is also affected by

15. For a numerical example, see Schwartz, *Security Interests and Bankruptcy Priorities: A Review of Current Theories*, 10 J. LEGAL STUD. 1, 8-9 (1981).

16. This relative efficiency may be a function of talent, location, experience, specialization, or attitude. *See* Jackson & Kronman, *supra* note 1, at 1155 n.47, 1156 n.50.

Inasmuch as the discussion in the text continues to regard relative monitoring costs as an important explanatory variable, it is important to note that it is the *comparative* advantage of a monitor that earns the adjective "efficient." Thus, *C1* may be a more talented monitor than *C2*, but *C1* may earn still greater returns in some other occupation. Because of his alternative opportunities, *C1* would charge more than *C2* to perform given monitoring tasks. In such a situation *C2* is then to be regarded as the more efficient monitor.

17. Jackson & Kronman, *supra* note 1, at 1157. For a general description of this role of contract rules, see Goetz & Scott, *Liquidated Damages, Penalties and the Just Compensation Principle: Some Notes on an Enforcement Model and a Theory of Efficient Breach*, 77 COLUM. L. REV. 554, 588 n.87 (1977).

18. Schwartz, *supra* note 15, at 11 n.28.

19. Banks have better access to data and may often be consulted by many future lenders inquiring into the debtor's past. *See infra* p. 56.

such misbehavior and *C1* may well expect *C2* to monitor the debtor. Similarly, *C2* may anticipate that *C1* will perform the necessary monitoring. This situation, like others in which one activity benefits numerous parties, poses a freeriding problem.[20] The two creditors may engage in duplicative monitoring efforts or they may rely on each other's efforts and fail altogether to monitor the debtor. Although it is possible that one creditor will be a brave bluffer and the other a conservative pessimist and that the debtor will then be monitored in an ideal manner,[21] such a result can hardly be expected. Moreover, a suboptimal result is more likely the more numerous the creditors.[22]

1. *Joint Monitoring Ventures*

Creditors might solve their freeriding problem by undertaking a joint venture that would employ a predetermined, efficient monitor to investigate the debtor's activities.[23] Such ventures do, of course, already exist in the form of credit agencies that accumulate past histories of debtors, with creditors normally paying a fee to acquire the collected information. That such associations are not popular for monitoring debtors' future activities may be a function of the substantial costs entailed in their establishment and the additional cost of monitoring the monitor. The latter cost reflects a thorny problem considered later in this Article;[24] for the present, it is convenient to assume that the monitor has a stronger interest in its reputation than do the debtors that it monitors.

For such a monitoring association to solve the freeriding problem and save the debtor some interest costs, the coventuring creditors must believe that the debtor will not bring in new creditors that do not join the existing

20. The freeriding problem is a central feature of the analysis of two familiar legal issues: vertical restrictions in antitrust law and comparative and contributory negligence rules in tort law. In the former, discount retailers may freeride on the sales efforts of competitors. *See* R. BORK, THE ANTITRUST PARADOX 290-91, 430-31 (1978). *But see* Levmore, *Rescuing Some Antitrust Law: An Essay on Vertical Restrictions and Consumer Information*, 67 IOWA L. REV. 981, 986-92 (1982) (freeriding problem may be solved by nonretailers, such as consumer-supported publications). In tort law, the freeriding problem is most acute in "alternative care" cases, in which an injury could be prevented by any one of two or more parties. Each one hopes another will expend the effort necessary to avoid damage. Thus, it may be impossible to structure liability rules with optimal behavioral effects. *See* Shavell, *Strict Liability Versus Negligence*, 9 J. LEGAL STUD. 1, 6-7, 19-20 (1980).

21. *See supra* note 3.

22. Consider an example with many creditors, any one of whom could perform the optimal level of monitoring. In deciding whether to perform such monitoring, each creditor would attempt to predict the behavior of other creditors. The more creditors there are in the calculus, the less likely it is that one, and only one, will decide to monitor. Either no creditor would monitor, or too many would do so. I am indebted to Alan Schwartz for drawing my attention to this issue.

23. Agreeing on contribution levels for such a venture is, among other problems, a formidable transactional difficulty. The creditors might contribute equally or proportionately to their investments, but they also might try to tailor fees to the constraints on the debtor that they have individually required.

24. *See infra* pp. 61-64; note 158.

association. If not, new creditors would be able to freeride on the joint venture's efforts, or the association might be tempted to freeride on the monitoring efforts of new creditors. The "extra promise" required of a debtor—that it not deal with creditors that do not support the joint monitoring effort—may itself pose a most difficult monitoring task. It could well be that, unless the law requires *all* credit arrangements to be publicly recorded or penalizes (subordinates) creditors who do not join in this solution to the freeriding problem,[25] it will be extremely difficult to know when a debtor has indeed brought in a new creditor but has not required this new creditor to support the group monitoring arrangement.[26]

Nor is the creditors' freeriding problem solved by limiting the number of creditors with a common monitoring interest. In the extreme case, if each debtor can be limited to dealing with one creditor, there will be no freeriding danger at all. But the single creditor would face the same problem that unravels joint monitoring ventures: the debtor must be unable to bring in new creditors. Moreover, the costs of such a system to a faithful debtor would be forbidding. Employees, suppliers, customers, and virtually all business contacts are frequent creditors, and the task of ensuring that debtors always prepay them would be a formidable one. Finally, the uncertainties surrounding the initial negotiations between creditor and debtor would lead to very high transaction costs, thereby increasing the very interest rate that the debtor seeks to minimize. Debtors cannot, therefore, regularly solve the freeriding problem among creditors by engaging in joint monitoring ventures or by agreeing to deal with a limited number of creditors. In the absence of any satisfactory solution, debtors will need to compensate creditors with higher interest payments for their redundant monitoring efforts or unallayed fears regarding debtor misbehavior.

2. *The Role of Security Interests*

Debtors might, however, solve the freeriding problem by offering security interests to certain creditors. Consider, for example, a simple debtor with assets consisting of some petty cash, accounts receivable, a company car, and common office supplies. Although there is an imaginable threat of risk alteration, the most serious potential misbehavior would seem to be the sale of the car followed by a conversion of the proceeds for the debtor's personal use. Creditors may be unaware of such misbehavior because each

25. Such legal regulation, however, does not wholly solve the freeriding problem, because it would still be necessary for creditors to monitor compliance with the recording provisions.

26. Although it is the *debtor* that will ultimately enjoy the lower capital costs that accompany reduced monitoring costs, *see supra* note 10, these only affect its posture ex ante; ex post, the debtor might still seek to borrow at lower cost by colluding with a new creditor at the expense of the preexisting ones (to the extent the credit and monitoring arrangements make this misbehavior possible).

might hope that the other will monitor the ownership of the debtor's vehicle.[27] In this setting, the benefits of secured financing are clear. The freeriding problem is largely avoided if one creditor can be assigned to monitor the debtor's car, as a secured creditor, with little expectation of effort on the part of other creditors. To be sure, if an available creditor is a relatively talented monitor, the security interest (and the attached monitoring task) can be assigned so that the freeriding problem is solved *and* the monitoring talent put to good use.[28] Accordingly, the Jackson-Kronman model, which depicted the talented monitors as assuming positions as *unsecured* creditors, seems flawed in its failure to recognize the freeriding problem among creditors.

A monitoring theory that includes freeriding considerations is consistent with the casual evidence commented upon by Professor Schwartz[29] and meets the major objection to the Jackson-Kronman model. A typical commercial bank, for example, appears to have excellent monitoring ability. It is experienced, enjoys economies of scale, is financially sophisticated, and has ready access to many of the assets and records of the debtor and its business associates.[30] That banks are frequently, if not exclusively, secured creditors thus fits the suggested monitoring theory.

Freeriding considerations also explain the Code's somewhat puzzling and different treatments of two other contributors to the firm's financial structure: the financer of a new asset and the "financing buyer," who advances funds for the production of desired goods. The Code offers a "purchase money security interest"—and therefore a relative priority (with a grace period for filing)—to the former,[31] but no similar arrange-

27. Again, it may be equally inefficient (and costly to the parties involved) for both creditors *C1* and *C2* to monitor the vehicle and, therefore, "overmonitor."

28. The secured creditor is rewarded for monitoring by a priority interest and by diminished risk (so long as the value of his collateral is not dissipated).

29. *See* Schwartz, *supra* note 15, at 11 n.28 (explaining monitoring role played by commercial banks). Professor Schwartz is also troubled by the Jackson-Kronman implication concerning short-term credit, *see* Jackson & Kronman, *supra* note 1, at 1159 (long-term loan provides more opportunity for misbehavior and is more likely to be secured). Presumably, short-term creditors are less likely to perceive subtle forms of misbehavior, such as risk alteration, than are long-term creditors, yet short-term creditors are commonly secured. Schwartz, *supra* note 15, at 13. But in the model described in this Article, the debtor will offer assets as collateral when these assets are appropriate focal points for debtor misbehavior. It matters little whether these assets are assigned to short-term or long-term monitors.

30. The bank's comparative size seems particularly helpful in dealing with state recording systems and for generating consequent monitoring advantages.

31. *See* U.C.C. §§ 9-107, 9-312(3), 9-312(4) (1977) (allowing lender, whose advances enable the debtor to acquire specific collateral, to gain priority over previously perfected interests so long as such lender files within ten days of debtor's acquisition of collateral). Jackson and Kronman explain this priority as creating competition for the lender with an "after-acquired property clause." Jackson & Kronman, *supra* note 1, at 1166-78. This view, however, overlooks the debtor's ability to repay such a lender and begin anew with another creditor.

ment to the latter.[32] This treatment may reflect an expectation that the financer of new equipment will be a more talented monitor than the financing buyer and therefore better suited to a unique assignment as a secured creditor.[33] If this financer is a commercial bank, its suitability is clear; and if the financer is the vendor or manufacturer of the new asset, it will often also be a talented monitor because of its familiarity with the use and maintenance of the asset in question.[34]

3. *The Incentive to Monitor*

Given their monitoring roles, it is fair to wonder why secured creditors are not further encouraged to use their talents (and freedom from the freeriding problem) to monitor the debtor. The "secured monitor" could, for example, be given a priority to the extent of the particular security interest but then actually be subordinated to the unsecured creditors for any part of its claim not ultimately satisfied in bankruptcy by the assigned collateral. In the prevailing Article 9 system, the secured creditor's incentive to monitor derives solely from the premium it has paid in the form of agreeing to lend at a lower interest rate, and it consists of the right to satisfy its claim with the agreed-upon collateral. Still, if the secured creditor could satisfy its claim *only* with the assigned collateral or were subordinated to the unsecured creditors for any amount not satisfied by the collateralized asset, it seems likely that the secured creditor might have an additional incentive to monitor.

A creditor priority system that sought to increase monitoring incentives in this way would, however, face two obstacles. First, consider that among the risks assumed by the secured creditor is the possibility that the collateral will depreciate despite the creditor's monitoring efforts.[35] If the secured creditor in bankruptcy has recourse only to the collateralized asset, then the secured creditor will be unlikely to agree to an interest rate lower than that agreed to by unsecured creditors unless the collateral's value

32. *See* Jackson & Kronman, *A Plea for the Financing Buyer*, 85 YALE L.J. 1 (1975) (describing and decrying Code's failure to treat financing buyer and seller similarly).

33. The Code's rule may therefore represent the bargain most parties would reach in the absence of transaction costs. *See supra* p. 53.

34. Among other factors, the vendor or manufacturer is likely to recognize certain subtle forms of risk alteration more readily than other monitors. For example, the debtor firm's manager may be cutting corners on the maintenance of equipment in order to boost current earnings. Only a monitor knowledgeable about such equipment might detect such misbehavior.

In contrast, the financing buyer is much less likely to be especially talented in monitoring the debtor's assets. It can thus be argued that the Code does not favor new money over old money. *But see* Jackson & Kronman, *supra* note 32, at 2-3 (sympathizing with financing buyers because they inject new money into debtor's enterprise). Rather, the Code assigns unique monitoring tasks to talented monitors.

35. For example, an automobile might decrease in value as a result of an unexpected increase in the cost of fuel, or it might depreciate faster than previously predicted.

were considerably greater than the loan extended to the debtor. But if this were the case and the asset did not depreciate significantly, the secured creditor would have a sizeable cushion against both depreciation *and* debtor misbehavior, and its incentive to monitor would consequently be reduced. Unsecured creditors are then unable to rely on the single monitor and are left to deal with their freeriding problem.

A separate difficulty with a system intended to stimulate monitoring efforts by denying the secured monitor a fallback position as an equal of the unsecured creditors arises because the assets that are available for security interests are not always perfect "focal" (observation) points of debtor misbehavior. Although the efficiency of the monitoring arrangement depends on the link between the concerns of the secured creditor and those of all creditors, this link is an imperfect one. Not all potential debtor misbehavior fits the secured monitor scheme as neatly as does the company car hypothetical.[36] What if, instead, another form of misbehavior affects the value of all the debtor's assets and is more easily detected by an unsecured creditor, such as an employee?[37] It is hardly sensible to discourage this (unsecured) monitor from expending some policing effort by constructing a system that places a cushion of inadequately secured creditors behind the unsecured ones. Moreover, suppose the secured monitor is in the best position to discover the debtor's misbehavior but refrains from doing so because its collateral is entirely dissipated, although other assets can still be salvaged. Again, it seems unwise to establish a priority system that sometimes reduces the secured creditor's incentive to monitor.[38]

D. *A Mixed Monitoring System*

The preceding analysis presents a simple model in which a legal arrangement, secured financing, neatly responds to the freeriding problem among monitors when there are good "focal points" to be assigned. When such focal points are unavailable, talented monitors are best employed as *unsecured* creditors so that they will, at least, have some incentive to monitor. Other creditors who are less talented or prefer security in an environment thick with freeriding potential will tend to acquire collateral.[39] The

36. *See supra* p. 56.

37. Employees are able monitors in some settings because of their obvious locational advantages. That employees' wage and pension claims are rarely secured may reflect the fact that the monitoring best undertaken by employees is of low cost and generates little freeriding potential. Giving one class of workers security interests would, of course, reintroduce the freeriding problem.

38. Occasionally, neither of these fears is well-founded and the secured monitor is best motivated by narrowing or eliminating its fallback position in the event that the collateral proves insufficient to satisfy its claim. The secured creditor might then take its monitoring task most seriously. A nonrecourse loan, in which the lender agrees not to look beyond the collateralized assets to satisfy its claims, is one such example.

39. *See supra* pp. 52-53.

Jackson-Kronman model can thus be seen as explaining a subset of the entire secured financing system.

In sum, Article 9 fosters a mixed monitoring system.[40] When particular assets are useful focal points of debtor misbehavior, efficient monitors serve as secured creditors and are rewarded with priorities for solving the freeriding problem among creditors.[41] Fortunately, many serious forms of debtor misbehavior are well-linked to physical assets that can be assigned to these talented monitors. The debtor can hardly switch location or lines of business or otherwise engage in risk alteration without substituting or removing assets and drawing the attention of the conscientious secured monitor. Even convertible liquid assets often will be well-monitored in this framework because they are frequently the proceeds of the disposition of physical assets, including inventory, that were suitable subjects for secured transactions.[42] But in other situations, available assets are simply poor focal points for monitoring the debtor's activities. In such settings, talented monitors will prefer to serve as unsecured creditors, collecting their rewards in the form of interest rate premiums that exceed their actual monitoring costs.[43]

II. The Corporate Structure

As a set of complex contractual relationships, the corporate firm generates a variety of monitoring and freeriding problems.[44] In developing the details of these influences on the corporate structure and the role of debt in alleviating the freeriding problem among investors, the discussion first considers the inadequacy of familiar responses to the freeriding problem among owners of the firm and then examines the ways in which the firm's

40. The Article 9 secured financing system as analyzed in this Article can be seen as an "enabling" legal institution: it codifies the private arrangements many parties would reach in the absence of transaction costs. It is neither a legal rule nor the product of judicial decisions.

41. The value of the collateral must, of course, approximate the advances of the secured creditor. If the collateral is of much greater value, then there is little incentive to monitor (unless default provisions are particularly desirable or interest rates have risen so that the creditor would prefer to retrieve its funds). If the collateral is of lesser value than the loan, then the creditor is really partly unsecured; the creditor's fate, and therefore its monitoring role, differs from that of other unsecured creditors only to the extent of the collateral's value.

42. *See* U.C.C. § 9-204 (1977) (facilitating continuation of security interest with respect to after-acquired property including accounts receivable and new inventory); *id.* § 9-306 (facilitating security interest in "proceeds" received from sale or exchange of original collateral).

43. However poor the focal points, the debtor will still be monitored to the extent that its misbehavior is easily noticed by creditors. The longer the duration of the debtor's misbehavior, the more likely that some creditor will stumble across it. *See* Jackson & Kronman, *supra* note 1, at 1159. Alternatively, the debtor's misbehavior might be noticed because of agreed-upon loan conditions or debtor-supplied information.

44. *See, e.g.*, Anderson, *supra* note 1, at 776-91 (describing monitoring and freeriding problems in corporate ownership structures); Dooley, *Enforcement of Insider Trading Restrictions*, 66 VA. L. REV. 1, 41 (1980) (analyzing insider trading in monitoring cost framework).

financial structure responds to monitoring and freeriding considerations.

A. *Freeriding Among Shareholders: Unsatisfactory Solutions*

If one assumes that some agents, including corporate managers, gain more utility from shirking[45] and self-dealing[46] than from maximizing the benefits that flow to their employers, then the need for shareholders to monitor their investment is apparent. These shareholders, however, face a freeriding problem.[47] Especially in a typical large corporation, managers are unlikely to own more than a small interest in their firm; their incentive to misbehave is thus likely to be great.[48] At the same time, because large enterprises require pooling of capital, they tend to have numerous shareholders and, therefore, a substantial freeriding problem. Moreover, the complex nature of the activities undertaken by large enterprises is such that it is counterproductive to simplify the monitoring task by limiting managerial discretion with inflexible instructions.[49]

1. *Managers' Reputations*

To the extent that the corporation's performance generates information about its manager, shareholders might be satisfied with an ex post review, meanwhile relying on the manager's "reputational interest" in promotions and lateral employment opportunities. Certainly, a meritocratic structure that rewards productive managers encourages good behavior. More fundamentally, however, the proposed solution merely restates the monitoring problem. An employer needs to distinguish among good and bad performances in order to reward the truly good ones.[50] But employers are numer-

45. Shirking is defined as neglecting one's duty in a manner unlikely to be corrected by one's principal. The employee who leaves work earlier than the time agreed upon is a shirker.

46. Acts of self-dealing are affirmative misdeeds. The range of self-dealing is reflected in the body of corporate law dealing with fiduciary breaches. *See* W. CARY & M. EISENBERG, CASES AND MATERIALS ON CORPORATIONS 518-882 (5th ed. 1980).

47. This problem is well-recognized in the literature. *See* Anderson, *supra* note 1, at 778-80. Freeriding among shareholders can lead either to insufficient or excessive monitoring. *See supra* p. 49.

48. The incentive to misbehave is caused by a divergence of interests between principal and agent; thus, a manager's incentive to misbehave increases as his own interest in the firm decreases.

49. In large part, the history of such attempts is the history of the declining role of ultra vires. *See* W. CARY & M. EISENBERG, *supra* note 46, at 38-45. Nor would the monitoring problems of large firms disappear in a structure containing numerous small enterprises (rather than fewer large firms). Monitoring problems do not depend on entity size per se but rather on the extent of interaction with other firms and on the complexity of production and distribution processes. Smaller firms may simply have more suppliers, with freeriding and monitoring problems identical to those facing the larger firm's investors.

50. The employer who seeks to hire from another firm's ranks faces special difficulties. In particular, the available information is so often tied to corporate secrets that it is impossible to learn about a manager's actual performance. The role of references is quite important, though ambiguous, in this setting. Such references may be used to unload an undesirable employee on another firm or, by suppressing glowing impressions, to retain productive employees.

ous and dispersed and their attempts to investigate and reward (or to hire a representative to undertake this task) are stymied by the freeriding problem. Despite small ownership interests of their own, some managers might maximize their firms' values to demonstrate their worth to potential or current employers. Others, however, will realize that reputational interests may not be worth building and that hard work does not always produce recognizable gains. A complex organization with multiple sources of revenues and expenses and no identically situated competitor does not easily lend itself to "before-and-after" comparisons.[51] Moreover, past performances, however accurately assessed, will not always be accepted as reliable indicators of future behavior. The selfish manager may only begin misbehaving when the stakes are large, the compensation level and retirement account already substantial, and the costs associated with the monitoring of his performance especially high because of the firm's complexity and the job instructions' flexibility. In short, gains from misbehaving can easily exceed the expected meritocratic rewards, so that the pressures of the labor market may offer inadequate checks on managerial misbehavior.

2. *Outside Directors*

The presence of outside, or independent, directors on the boards of large corporations is generally recognized as a response to the ineffectiveness and inadequacy of direct shareholder participation in the governance of the firm.[52] The most obvious freeriding is eliminated by the corporation's absorption of the cost of nominating, electing, and maintaining these professional monitors.[53] It is perhaps not surprising that some commentators place great faith in this institution as a solution to the freeriding-monitoring problem.[54]

A recurring weakness with such an approach, however, is the need to monitor monitors. The financial rewards available to outside directors are hardly better linked to the shareholders' interests than are the managers' compensation packages.[55] As with all enforcement questions, it may seem

51. To be sure, some employers (such as sports teams or stock brokerage companies) appear to promote and demote management on the basis of the absolute rather than the relative performance of their firms. This practice may simply reflect the inability of such firms to make critical comparisons and, therefore, their willingness to experiment.

52. *See* Anderson, *supra* note 1, at 780.

53. *See id.*; Leech & Mundheim, *The Outside Director of the Publicly Held Corporation*, 31 BUS. LAW. 1799, 1835-36 (1976).

54. *See, e.g.*, M. EISENBERG, THE STRUCTURE OF THE CORPORATION: A LEGAL ANALYSIS 170-85 (1976); Leech & Mundheim, *supra* note 53, at 1811.

55. *See* Anderson, *supra* note 1, at 780 n.123 (reporting practice of compensating outside directors with flat annual fees); *see also* Brudney, *The Independent Director—Heavenly City or Potemkin Village?*, 95 HARV. L. REV. 597, 613 (1982) (noting that monetary incentives cannot accurately and adequately compensate economically motivated directors for their efforts, and that significant compensation could counterproductively discourage effective monitoring).

that the threat of legal liability, with punitive or criminal components sufficient to offset the expectation of non-detection, is sufficient to deter misbehavior. Without sufficient monitoring, however, such deterrents are unlikely to be successful. Moreover, given the vagueness of the "business judgment rule,"[56] the boundaries of misbehavior of both manager and monitor cannot be drawn infallibly.[57]

It is possible, however, that while a manager's gain from misbehavior is likely to exceed his expected reputational loss, a professional monitor's reputational loss from "mismonitoring" will normally outweigh his direct personal gain. Indeed, many outside directors of major corporations are well-known personalities with considerable potential reputational losses to bear.[58]

Unfortunately, the professional monitors who serve as outside directors are ill-equipped for their task; there are few resources and few disinterested aides at their disposal.[59] The funding of outside directors is usually determined by the same managers whose potential misbehavior the directors are engaged to uncover. Moreover, perhaps as a result of the inadequate tools placed at their disposal or the process by which they are nominated,[60] casual evidence suggests that outside directors become friendly peers of their codirectors rather than inquisitive and pressing monitors.[61]

To be sure, the institution of the outside director might contribute to a more successful solution of the freeriding problem if the law required corporate contributions of some magnitude to a "monitoring fund" that would finance directors' inquiries. Unfortunately, proponents of reforms that call for the strengthening of the outside director's position see the professional monitor as representing "society" as a whole, including con-

56. *See* Brudney, *supra* note 55, at 607-09, 614 n.50, 615-16.

57. Not only will a badly drawn or inspected boundary discourage some desirable decisionmaking, but also it will surely deter potentially useful monitors from accepting positions on corporate boards. If the corporation offers to pay insurance premiums and secure liability insurance that protects directors against lawsuits, the monitoring function of the liability rules is, of course, diminished. *See* Bishop, *New Problems in Indemnifying and Insuring Directors: Protection Against Liability Under the Federal Securities Laws*, 1972 DUKE L.J. 1153, 1160, 1164; Bishop, *Sitting Ducks and Decoy Ducks: New Trends in the Indemnification of Corporate Directors and Officers*, 77 YALE L.J. 1078, 1094-95 (1968).

Of course, *insurers* could monitor the firm, solving the freeriding problem in passing, but there is no evidence that they perform any active monitoring role or that policyholders (firms themselves) wish to pay for this service. Presumably these insurers, like independent directors, are themselves difficult to monitor or are grossly inefficient at monitoring.

58. *See* J. BACON & J. BROWN, CORPORATE DIRECTORSHIP PRACTICES: ROLE, SELECTION AND LEGAL STATUS OF THE BOARD 30-35 (1975).

59. *See* M. EISENBERG, *supra* note 54, at 144; Brudney, *supra* note 55, at 609; Solomon, *Restructuring the Corporate Board of Directors: Fond Hope—Faint Promise?*, 76 MICH. L. REV. 581, 585 (1978).

60. *See* Brudney, *supra* note 55, at 610 & n.39.

61. *See* M. EISENBERG, *supra* note 54, at 147; Solomon, *supra* note 59, at 584-88.

sumers, employees, unemployed workers, and users of the environment.[62] The conflicts among these claimants[63]—not to mention the larger question of the propriety of resolving these tensions at the expense of bystanding shareholders whose equity is at stake—draw attention away from the underlying problems of shareholder preferences, representation, and action that, although less controversial, lie at the center of any modern capitalist system. At any rate, the institution of independent directorships is at best an incomplete solution to the freeriding problem among shareholders.

3. *The Capital Market*

In one sense the existence of an active market for a firm's stock exacerbates the monitoring problem. A shareholder or experienced monitor whose investigative efforts yield information about managerial misdeeds[64] will almost surely prosper more from immediately selling (or selling short) shares before the market price reflects the firm's trouble than from calling attention to the discovered misbehavior.[65] An active capital market may therefore encourage private monitoring but discourage the whistleblowing that normally makes monitoring efforts generally useful.

Nevertheless, the capital market often is thought to solve the monitoring problem in a large-scale manner by simplifying the acquisition or take-

62. *See, e.g.*, R. NADER, M. GREEN & J. SELIGMAN, TAMING THE GIANT CORPORATION 124-28 (1976) (arguing for more diverse, public oriented corporate boards); Dahl, *A Prelude to Corporate Reform*, 1 BUS. & SOC'Y REV. 17, 19-20 (1972) (suggesting interest-group representation on corporate boards). For a less radical view that still considers the interests of most disenfranchised groups, see C. STONE, WHERE THE LAW ENDS 134-83 (1975).

63. *See* Chirelstein, *Corporate Law Reform*, in SOCIAL RESPONSIBILITY AND THE BUSINESS PREDICAMENT 41 (J. McKie ed. 1974).

64. In this context, misdeeds refer to discrete, affirmative acts that go beyond mere shirking. *See supra* notes 45-46 (distinguishing between self-dealing and shirking).

65. The investigator has three profitable options regarding discovered misbehavior: selling, buying and improving, and whistle-blowing. The last is only profitable if the managers correct their behavior or are displaced. The whistle-blower then profits according to his ownership interest in the firm. The discussion in the text argues that the first option, selling with the expectation that the market will eventually learn about the firm's weaknesses, is likely to be the most attractive to an investigator and that the second option, a takeover bid, may be profitable to the acquirer but may, at the same time, increase monitoring problems.

The incentive to monitor and then act in a selfish way is not diminished by the possibility of discovering good news (exceptionally good managerial behavior) about the firm. The monitor will realize that the ill-informed market expects average behavior from the firm's managers and that the discovered information regarding good behavior indicates that eventually the market will realize the firm's superior performance given the resources at its disposal. As such, the selfish monitor will buy shares of the firm's stock (and, if practical, announce the good news to the public). This trading will, of course, push the market price in the "correct" direction (and may thereby eventually signal good managerial behavior) and serve the equally useful social purpose of rewarding monitors. Because the level of such monitoring might decrease if stock trading on the basis of this sort of unequal information were ruled illegal, such trading ought not to be prosecuted. *See generally* Levmore, *Securities and Secrets: Insider Trading and the Law of Contracts*, 68 VA. L. REV. 117, 145-48 (1982) (discussing signalling effects of stock prices and rewards for economically efficient actors).

over of a poorly managed firm by an outside acquirer.[66] The professional monitor will be motivated by the potential rewards when, as an acquirer, he profits as the firm's true potential is realized under his superior control.[67] But this model of the takeover process as a check on misbehaving managers is unconvincing if the basic assumptions regarding monitoring costs and the temptations of managerial misbehavior are taken seriously.

Typically, one publicly held firm acquires another. The acquirer is then itself an organization with shareholders who must be on the lookout for misbehavior. Following the acquisition, the manager in control of the conglomerate firm will probably have more incentive and increased potential to misbehave. When the two firms are combined under the control of the acquirer's manager, the costs of monitoring this manager will undoubtedly rise. The number of shareholders (and therefore the freeriding potential) will almost certainly have increased, and the manager's ownership interest will have dropped, making it more rewarding for him to cash in his reputational interest. Finally, in conglomerate enterprises it is likely to be even more important to delegate broad discretionary authority.[68] Clearly, the capital market is as likely to exacerbate monitoring problems as to solve them.

4. *The Derivative Suit*

The danger that monitors will sell short rather than initiate generally useful corrective action is aggravated by the fact that such action frequently entails costly litigation. To the extent that litigation costs are awarded to the enterprising plaintiff or attorney who guides a derivative suit, the freeriding problem can be alleviated; all shareholders benefit from the successful suit and, through the corporate intermediary, all share in the cost of litigation.[69] Because costs are not always awarded,[70] however, an informed monitor may be discouraged from litigation (or from monitoring at the start). Moreover, even if successful plaintiffs were virtually guaranteed generous awards, sufficiently risk-averse monitors may nonetheless hesitate to sue because such awards may still be insufficient to

66. *See* Easterbrook & Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 HARV. L. REV. 1161, 1169 (1981).

67. *Id.* at 1173.

68. Unfortunately, in their enthusiasm for capital markets and takeovers, recent commentators have neglected these monitoring problems in the post-acquisition firm. *See* Easterbrook & Fischel, *supra* note 66, at 1169-74. Certainly, if the acquirer were a single individual or a firm with no need to monitor subordinates, as assumed by Jensen & Meckling, *supra* note 1, at 349, then an acquisition would eliminate misbehavior and monitoring costs. But these assumptions rarely hold in reality.

69. *See* W. CARY & M. EISENBERG, *supra* note 46, at 938-40.

70. Not all monitoring efforts yield tangible or measurable benefits to the monitored corporations. *See id.* at 939-42. Furthermore, a security-for-expenses requirement further discourages monitoring by derivative actions. *Id.* at 949-51.

compensate them for their a priori desirable, if ultimately fruitless, monitoring efforts.[71]

Presumably, monitors could be encouraged to investigate and litigate by a system that builds on the foundation of derivative suits and offers greater rewards to prospectors. Victorious plaintiffs might be given more generous fees, or, as in antitrust law, where similar freeriding problems exist,[72] misbehaving defendants might be required to pay some multiple of actual damages. Although such radically different enforcement systems[73] are beyond the reach of this Article, it is worthwhile to note that such schemes generate other dangers. Generous incentive systems may encourage overly enterprising plaintiffs, who, despite groundless claims, will willingly gamble on their abilities to elicit friendly verdicts from errant juries or, what is essentially equivalent, profitable settlements from tired and risk-averse defendants.[74]

B. *The Responsiveness of the Firm's Financial Structure*

The discussion now turns from examining the monitoring and freeriding problems of the corporate enterprise to understanding the responsiveness of the financial structure of corporations to these monitoring and freeriding difficulties. As in the description of security interests,[75] the analysis at first excludes freeriding considerations and, in reviewing the work of Professors Jensen and Meckling, regards the debt-equity mix of a firm as responsive to relative monitoring costs. The analysis then relaxes that assumption and examines the ways in which this mix can be understood as responding to the freeriding problem among shareholders.

One important disclaimer is appropriate at the outset: the analysis attempts to contribute to—and not to dominate—an understanding of the financial structure, including the debt-equity ratio, of the firm. The na-

71. Successful plaintiffs may be well-compensated for their monitoring efforts that lead to the critical lawsuit. Many monitoring efforts, however, will not uncover violations and will, therefore, not be compensated. Even if a potential monitor expects to be fully compensated for efforts that lead to successful litigation but expects no compensation for efforts that do not uncover misbehavior, he may refrain from monitoring or from the required level of monitoring. This points to a common choice in the design of incentive systems: to encourage explorers or enforcers, society must either pay their costs all of the time or pay more than their costs when they are successful. Because true costs are difficult to measure, the first option may encourage undesirable "fishing" expeditions. On the other hand, a reward system that compensates monitors on balance for both productive and unproductive efforts is difficult to design correctly.

72. *See generally* K. ELZINGA & W. BREIT, THE ANTITRUST PENALTIES: A STUDY IN LAW AND ECONOMICS 3-7, 68, 112-38 (1976) (discussing treble damages and efficient fines as methods of combatting freeriding problem in antitrust).

73. *See* Becker & Stigler, *Law Enforcement, Malfeasance, and the Compensation of Enforcers*, 3 J. LEGAL STUD. 1 (1974); Landes & Posner, *The Private Enforcement of Law*, 4 J. LEGAL STUD. 1 (1975); Polinsky, *Private Versus Public Enforcement of Fines*, 9 J. LEGAL STUD. 105 (1980).

74. *See* R. POSNER, ECONOMIC ANALYSIS OF LAW 434-41 (2d ed. 1977).

75. *See supra* pp. 52-59.

ture and explanation of financial structures is an enormous puzzle that has been commented upon extensively in the literature.[76] In solving this puzzle, it is important to take into account tax considerations,[77] bankruptcy fears and costs,[78] and the value of corporate control.[79] The continued efforts to assess the relative importance of these elements indicates that their combined explanatory power is not completely satisfactory.[80] The analysis in this Article attempts, then, to contribute to this inquiry.

1. *The Jensen-Meckling Contribution*

The terminology and central features of the Jensen-Meckling model[81] can be summarized as follows:

1) A manager does not behave as would a sole proprietor because some of the fruits of the manager's efforts accrue to "outside" owners of the firm. The smaller the manager's ownership share of the firm, the greater is the incentive to misbehave. This misbehavior may be blatant (self-dealing) or subtle (shirking).

2) Shareholders will realize that some (costly) amount of monitoring is optimal,[82] that some managerial misbehavior is inevitable, and therefore, that both of these "agency costs" must be taken into account in evaluating a given investment opportunity.

76. *See, e.g.*, E. FAMA & M. MILLER, THE THEORY OF FINANCE (1972); W. KLEIN, *supra* note 8, at 220-52; Baxter, *Leverage, Risk of Ruin and the Cost of Capital*, 22 J. FIN. 395 (1967); Jensen & Meckling, *supra* note 1; Miller, *Debt and Taxes*, 32 J. FIN. 261 (1977); Modigliani & Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment*, 48 AM. ECON. REV. 261 (1958).

77. The deductibility of interest costs to the corporation is one small piece in this puzzle. If tax considerations are relevant, it is because some individuals' tax rates are sufficiently greater than the corporate tax rate so that it is desirable for these individuals to hold debt and for the corporations to retain earnings. *See* W. KLEIN, *supra* note 8, at 248-52. On the other hand, to the extent that the market prices of investment vehicles reflect their relative attractiveness to investors, tax considerations might all be reflected in before-tax returns so that a firm does not care about taxes in choosing a debt-equity mix. *See* Miller, *supra* note 76, at 269-71.

78. A high degree of leverage increases the risk of bankruptcy and, therefore, the cost of capital. *See* Baxter, *supra* note 76, at 402 (concluding that firm's financial structure results from balancing tax advantages of debt against risk of bankruptcy costs associated with debt); Jensen & Meckling, *supra* note 1, at 333 (finding that bankruptcy costs discourage high debt-equity ratios).

79. For example, a controlling manager will be disinclined to issue more equity if new outside shareholders might threaten his controlling position.

80. Of course, it may be that there is no satisfactory explanation of firms' debt-equity ratios. The mixes may be irrelevant and random or they may simply appeal to investors' tastes that are, in turn, either the product of individual tax or portfolio considerations or even aesthetic choice. This Article adopts no view regarding the influence of any of the variables mentioned in the text on the firm's capital structure. It merely offers an explanation of the role of secured credit and associated institutions in the context of such structure. This role will be more important in some models than in others.

81. *See* Jensen & Meckling, *supra* note 1.

82. Again, "bonding," or manager-initiated steps to reduce the costs of an agency relationship, is also possible; but the discussion continues to regard monitoring as an all-inclusive term. *See supra* note 11. Were these costs and benefits quantifiable with precision, the shareholders would monitor to the point at which the marginal cost of monitoring would equal the marginal benefit associated with reduced managerial misbehavior. Such a straightforward relationship, however, fails to take the problem of freeriding into account.

3) There are also substantial agency costs associated with outside debt, because fixed claims create an incentive for the manager-shareholder to engage in risk alteration.[83] He may elect to forego socially desirable projects with relatively high expected returns when such projects are unlikely to offer substantial returns to equity, as opposed to returns to both debt and equity.[84] Creditors can try to prevent such behavior by imposing inflexible guidelines and covenants, but if they do so the firm might pass up good investment opportunities.[85] Debt will be incurred to the extent that monitoring costs are smaller than both the returns available from the projects that require additional capital and the agency costs of additional outside equity.

Under the Jensen-Meckling model, the greater the stake of managers in the enterprise, the less their incentive to misbehave (and the need to monitor). Their desire to diversify and eliminate unsystematic risk, however, keeps most managers from investing their entire wealth in their employers' business.[86] The cost of raising outside equity thus reflects the monitoring concerns of outside shareholders. Debt becomes an attractive alternative to equity when the monitoring anxieties of creditors, which derive mainly from the manager-shareholder's position on the "equity team," can be allayed at a lower cost than the concerns of outside equity investors.[87] Jensen and Meckling conclude that, after the manager's own willingness to invest is exhausted and the effects of tax and bankruptcy considerations are included, the firm's debt-equity ratio will be determined by the interaction of the monitoring cost functions of outside shareholders and outside creditors.[88] Their model thus describes the financial structure of the firm as dependent upon the monitoring environment that it creates.

83. The manager's ownership interest does not diverge from that of other stockholders in this regard. Rather, it is creditors who charge more for their capital as their fears of risk alteration grow. These outside creditors might gain confidence as they observe the fixed quality of some "inside debt," such as managers' compensation claims. It is plausible that managers could mimic the outside debt-equity ratio in their own portfolios and thereby reduce the costs of outside debt (by reducing monitoring concerns). *See* Jensen & Meckling, *supra* note 1, at 352-54. This possibility does not interfere with the role of secured credit. *See supra* pp. 56-59.

84. For example, assume that project A offers a safe return of $45 and that creditors are owed $40, so that equity owners will be left with $5. Project B, if it succeeds, offers a return of $60, so that $20 would be left for equity, but is as likely to fail and offer $10, so that equity and debt "share" the loss. The manager may well choose project B although the expected return to both debt and equity from B is $35 and, therefore, less than that offered by A. The expected return to equity alone under project B is $10, $5 higher than that under project A. Thus, a socially less desirable project may be selected. *See* Jensen & Meckling, *supra* note 1, at 334-38.

85. Where creditor covenants seek to restrict the risk taken by the corporation, managers might be compelled to refuse investment opportunities with relatively high expected returns but with "unacceptable" levels of risk.

86. *See* W. KLEIN, *supra* note 8, at 153-55.

87. Creditors fear both conversion and risk alteration. *See supra* p. 52. Outside shareholders fear conversion and generally benefit from risk alteration.

88. *See* Jensen & Meckling, *supra* note 1, at 344.

Although this analysis is a great deal more illuminating than one that marches through firms' balance sheets ignoring monitoring considerations,[89] it remains somewhat unsatisfactory even before the introduction of freeriding difficulties. Consider an enterprise with the following financial structure: $100,000 of "inside" equity, $99,900,000 of outside equity, and no debt. The manager has a 0.1 percent ownership share and, therefore, his potential returns from misbehavior are dangerously high. Is this problem really relieved significantly if, instead, the debt-equity ratio were 1 or 2, that is, 50 or 67 million dollars of debt with correspondingly less equity in the structure? It is difficult to imagine that the temptation to misbehave or the difficulty of monitoring drops measurably simply because the manager's share of the residual claims rises to 0.2 or 0.3 percent.[90] Thus, although the different monitoring costs associated with debt and equity are likely to influence the firm's financing choices, the explanatory power of the model seems limited.

2. *Creditors as Useful Monitors*

The effects of monitoring on the debt-equity ratio of a firm are better understood if freeriding considerations are included in the analysis. Lenders must contend not only with managers who threaten to convert assets and to alter risk but also with the duplicative and suboptimal monitoring efforts that are expended in a freeriding environment. Similarly, outside shareholders must struggle both with managerial misbehavior and with the problem of allocating monitoring tasks among potentially freeriding shareholders. By thus recognizing the freeriding problem, one can predict that the firm will need to pay higher premiums for outside financing than predicted by the Jensen-Meckling model; however, a more complete understanding of the firm requires an inquiry into the ways in which it can respond to and solve the freeriding problem among monitors.

a. *The Use of Secured Creditors*

The analysis set out earlier in this Article described a solution to the freeriding problem among creditor-monitors in which talented monitors were given unique monitoring assignments as secured creditors.[91] The

89. Such marches traditionally proceed according to a conservative drummer. "High" debt-equity ratios are generally regarded as unsafe past a certain point. *See* Baxter, *supra* note 76, at 395 ("[I]n the real world it is impossible to obtain debt financing unless creditors believe there is a sufficient equity cushion.").

90. The discussion in the text holds constant other influences on the tendency of managers to misbehave. These factors, including risk aversion and moral sensibilities, are not, however, likely to yield radically different results as the debt-equity ratio rises.

91. *See supra* p. 56.

success of this solution was limited by the extent to which the security interests that could be offered by a given debtor were useful focal points for the monitoring of that debtor.[92] If, for example, the monitors of collateralized assets could be expected to discover all instances of conversion and risk alteration by the debtor, then the freeriding problem among creditors could be entirely solved; the secured monitor assigned to each asset would have no peers and, therefore, no temptation to freeride. Unfortunately, the freeriding problem among shareholders cannot be solved analogously. There is no way to assign specific assets to shareholders, both because shareholders' claims are residual[93] and because the firm's profits cannot be traced back to particular assets.[94]

The freeriding problem among shareholders, however, can be alleviated if the information obtained by the secured creditors—whose unique assignments are not subject to freeriding—is useful to the shareholders. If shareholders benefit from such information, they will employ secured creditors to perform monitoring activities.

Secured creditors that monitor their collateralized assets can provide "signals" about the financial stability of the firm to its outside shareholders. Under Article 9, a secured creditor is entitled to exercise its rights in the collateral following a default or breach of any of the terms of its security agreement with the debtor to make a payment when due. The public exercise of these rights transmits, at the very least, a strong signal of default itself.[95] Shareholders (or directors) beset by monitoring difficulties

92. Some of the debtor's assets might not be useful as collateral for secured transactions. *See supra* p. 59. Additionally, for administrative or other reasons, Article 9 and other legal norms may not provide for the use of such assets as security interests. The extent to which the basic monitoring-freeriding argument can be adapted to explain the entire list of transactions excluded from Article 9, *see* U.C.C. § 9-104 (1977), lies beyond the scope of this Article.

93. The secured creditor's motivation to monitor derives primarily from the knowledge that in the event of a breach the collateral will be available to satisfy its claim before others. But what could a shareholder-monitor be offered with respect to an assigned asset? The creditor has a fixed claim and can at any point be fully satisfied; the shareholder has an unlimited interest in upside return and therefore can never be fully satisfied with collateral.

94. If the firm's profits were clearly traceable to specific assets, shareholders might divide up the assets and behave as if they were separate firms combining in a productive endeavor. Each shareholder would then bear the losses and profits associated with the assigned assets. Even beyond the obvious impracticality of this division, the failure of physical assets to explain all of the firm's earnings (such as those derived from goodwill) indicates the unreality of this approach.

95. The discussion refers to two distinct types of signals. First, the signals or warnings relayed to shareholders by secured creditors are straightforward; the shareholders seek certain information and are able to extract it from signals provided by monitors. Second, there are passive signals or "screens" transmitted in various settings. *See* A.M. SPENCE, MARKET SIGNALING: INFORMATIONAL TRANSFER IN HIRING AND RELATED SCREENING PROCESSES (1974). When detailed information is expensive to obtain—as on an assembly line or in a pool of applicants—it may be practical to assume that the average quality of a group is descriptive of any particular individual found in that group. Of course, individuals then have incentives to join certain groups, such as diploma-bearers, in order to transmit profitable signals. *See id.* at 14-37, 76-87. In the corporate context, managers may be judged by their association with a bankrupt firm, although bankruptcies are not always traceable to inferior management.

will, for example, find it relatively easy to note instances of judicial foreclosure,[96] repossession[97] or disposition of collateral.[98] In the case of some liquid collateral, collection by the secured creditor of payments from the debtor's obligors will provide a similarly clear signal.[99]

The real usefulness to shareholders of these signals derives from the information they provide about managerial performance and misbehavior. Clearly, shareholders need to know whether their corporation's managers are well-suited for the positions they fill. In particular, it is especially difficult to review managerial activity in a complex organization when the worry is not so much about affirmative misdeeds as about whether different personnel could better serve the firm. Such information is difficult to obtain; only a limited amount can be learned from comparisons with competing firms[100] and from explicit reports about those in control. Thus, it seems quite plausible that shareholders seek "reporting stations," in the form of terms in security agreements, that assist them in acquiring information about the firm's financial health. For example, they might want to know about the firm's inability to meet loan repayment schedules that appeared reasonable when introduced.

Under this view, a firm reduces its agency costs by establishing a warning system that consists of outside monitors who receive and note fixed payments or other requirements. When such an undertaking fails to materialize, a monitor is encouraged, through exercising default provisions, to relay the information. Shareholders, in turn, receive these warning signals and can investigate the performances of the firm's managers or seek to experiment with different personnel arrangements.[101]

96. *See* U.C.C. § 9-501(1) (1977). The secured party may exercise its claim to judgment and foreclosure or otherwise enforce the security interest by "any available judicial procedure." Shareholders might follow such court proceedings or note advertisements for judicial sales.

97. *See id.* § 9-503. The secured party may repossess its secured collateral unless it agrees to other arrangements. Shareholders might do a small amount of monitoring and notice a missing fixture, or note repossession proceedings in the media.

98. *See id.* § 9-504. In seeking to dispose of such collateral, the secured party might advertise such a sale and thereby bring the situation to the attention of shareholders.

99. *See id.* § 9-502. Shareholders who engage in a small amount of monitoring may note that some previously expected receivables are no longer arriving.

100. So many variables come into play in comparing two enterprises that the relative success of one firm can rarely be credited solely to a single manager. Firms are likely to make many decisions on the basis of limited exploratory steps that allow comparisons only among different states of the firm itself. For an interesting effort to model this process, see Nelson, Winter & Schuette, *Technical Change in an Evolutionary Model*, 90 Q.J. ECON. 90 (1976) (describing growth model linked to success of "exploratory" activities).

101. In some sense, the text begs the question of how such changes or experiments are undertaken. If dispersed shareholders are truly paralyzed by freeriding, then all such changes must be promised ex ante in the managers' employment contracts or in credit arrangements. In reality, some of these "change mechanisms" are probably built into the managerial socialization process. Managers who are unable to meet expectations are, perhaps, shamed into exploring alternative career paths. These mechanisms are beyond the scope of the present description.

Often, however, shareholders may be selfish and hesitant rather than paralyzed. When signals are

The value to the firm of these signals, and therefore of debt, is enhanced by their role in the discovery of managerial misbehavior. A manager's reputation and employment potential would probably suffer substantial damage because of his association with or direction of a firm that defaults on its obligations or becomes bankrupt. Because future employers find accurate information about the manager's ability even more expensive to obtain than do present employers,[102] they may take the signal of default[103] even more seriously than do the immediately affected shareholders.[104] Thus, once a default occurs, lateral employment opportunities are limited and the manager may be more tempted than ever to misbehave. A less dramatic but still important form of misbehavior that can also be foreseen by a signal of default derives from the manager's interest in keeping the firm afloat when the shareholders' interest calls for its dissolution. The more a manager's job skills and experience (human capital) are firm-specific,[105] the less he will be able to replicate his compensation package elsewhere and the greater his incentive will be to forestall a shutdown or contraction of the firm.[106] At the very least, the firm's continuing operation will be of interest to its managers while they search for new employment.

In summary, a firm can lower its capital costs by reducing the freeriding problem among shareholders if it employs secured creditors, with implicit and unique monitoring assignments, to signal information to other investors. The effectiveness of this signalling system depends on the ease with which information can be transmitted and on the discreteness of the monitoring assignments.[107]

It is worthwhile to examine the place of *unsecured* creditors in this model. Some creditors are unsecured even when there are unassigned focal points simply because it would be too cumbersome for firms to deal with all suppliers by prepayment,[108] security assignment,[109] or promises in the

received these shareholders will be more confident that their investigation and litigation will now be rewarded. Similarly, the board of directors may be more effective in responding to warning signals than in carrying out clueless monitoring exercises.

102. *See supra* note 50.

103. Litigation concerning the performance of the manager or of his previous firm may be another such signal.

104. The less information an actor possesses the more crude the signals on which he must rely. Present employers may take the signal of default as a stimulant to examine the manager's abilities further. Other employers, however, may not be in a position to obtain additional information and may need to accept the only available signal (default) indicative of the manager's ability.

105. The manager's worth may reflect his knowledge about the industry as a whole and about the resources and bureaucracy of the specific firm for which he works. Only the former is useful to another firm.

106. For an example of such forestalling, see *In re* Carter & Johnson, SEC Securities Exchange Act Release No. 17,597 (Feb. 28, 1981).

107. Some firms may not have useful focal points to assign. *See supra* p. 59.

108. Prepayment is not always possible because the quality and value of supplies are not always

form of equity shares.[110] The remaining bulk of unsecured credit might be regarded as critical "filler material" that provides incentives for the secured monitors. Indeed, if there were little unsecured credit in a firm's financial structure, and the aggregate value of the the collateralized assets fell short of the total value of the firm, the secured creditors would enjoy so substantial a cushion beneath their exclusive claims as to dilute seriously their incentive to monitor.[111] It is, of course, counterproductive and impractical to demote undercollateralized secured creditors in bankruptcy to the status of equity owners.[112]

b. *The Bondholders' Trustee*

Another institution that may be useful to outside shareholders and that is responsive to the freeriding problem is the bondholders' trustee. The Trust Indenture Act[113] was designed, in part, to overcome the freeriding problem.[114] It requires that the trustee have adequate powers to protect the bondholders.[115] The role played by a bondholders' trustee may be analogized to that of an outside director.[116] Whether the typical trustee's fees and resources are comparatively greater than those at the disposal of outside directors is an empirical question that cannot be easily answered.[117] The reliability of the trustee as monitor, however, is enhanced

known beforehand. Moreover, prepayment may involve a large number of transactions and, therefore, high transaction costs. *See also supra* pp. 55-56 (discussing impracticality of limiting debtor to single creditor).

109. A secured transaction often will be unsatisfactory to a supplier because the service or good delivered may be unusable as a security interest and other assets of the requisite value may be unavailable for this purpose. Moreover, the supplier may simply be uninterested in a monitoring assignment and unwilling to pay a premium for it.

110. Denominating suppliers' claims in equity form requires a clear exchange rate between the two. If shares are not actively traded, each transaction will entail substantial costs. Furthermore, in many settings the preexisting shareholders will have worked out voting arrangements, possibly protected by preemptive rights, that would be upset by new shareholders.

111. Potential shareholders would then be without effective monitors and accordingly would require greater expected returns to invest in the enterprise.

112. Such demotion would decrease the secured monitor's incentive in the event of depreciation of its collateral. *See supra* p. 57. In particular, if the now senior unsecured creditors were likely to exhaust all of the debtor's assets, there would be no incentive at all for the secured creditor to monitor. Moreover, the demoted secured creditors will discover that the equity owners are benefitted by risk alteration and are, therefore, incompatible peers.

113. 15 U.S.C. §§ 77aaa-77bbbb (1976). The Act sets out requirements for bonds, debentures, notes, and other debt securities offered to the public by mail or in interstate commerce but exempts issues of not more than $250,000 within twelve consecutive months and those of not more than $1,000,000 within thirty-six consecutive months. The Act further requires a qualifying indenture and trustee.

114. *See* SECURITIES & EXCH. COMM'N, REPORT ON THE STUDY AND INVESTIGATION OF THE WORK, ACTIVITIES, PERSONNEL AND FUNCTIONS OF PROTECTIVE AND REORGANIZATION COMMITTEES part VI, at 2-6 (1936).

115. *See* SECURITIES & EXCH. COMM'N, TENTH ANNUAL REPORT 153-55 (1944) (discussing central role of trustee in protecting bondholders).

116. *See supra* pp. 61-63.

117. To fill the monitoring role described in this Article, the trustee needs resources sufficient only

by its high reputational interest. The corporations that serve as trustees are long-lived and stand to lose a great deal of future business if their reputations are tarnished by negligent or overreaching behavior. Moreover, the law assists bondholders in pursuing claims against a misbehaving trustee by denying the trustee the "business judgment rule" defense that is enjoyed by shareholders' representatives.[118] Thus, despite comparable fact situations and potential conflicts of interest, bondholders appear to do considerably better than shareholders in recovering from their representatives.[119] In addition, trustee misbehavior is often easily discovered without intense monitoring efforts. Thus, in one well-known case,[120] a bank-trustee violated its duties by separately negotiating with the debtor for a loan that allowed the bank to obtain a priority over the bondholders whom it had represented as trustee. The prevailing legal standard obviated any substantial monitoring effort by the scattered bondholders. The bank was forced to resign as trustee before negotiating its own loan; bondholders received notice of this resignation and launched an investigation.[121]

In some settings the bondholders' trustee might even be regarded as a supermonitor, capable of solving freeriding problems among secured creditors themselves. Consider a debtor that owns a substantial number of railroad cars. The assignment of a railroad car as a security interest may solve a freeriding problem among numerous lenders and other investors. If individual cars are assigned to a number of secured creditors, however, a freeriding problem will develop among those creditors because their security interests will be closely linked.[122] Unless they deal with a creditors' representative, or trustee, the shareholders of this debtor will be unable to enjoy the benefits of an efficient warning system because monitoring tasks cannot be uniquely assigned.[123] In short, the bondholders' trustee appears to be one more example of a legal institution that reflects monitoring and freeriding considerations.[124]

to note defaults by the debtor. Directors, on the other hand, may know neither what they are looking for nor where to look.

118. For the evolution of the trustee's standard of conduct, see V. BRUDNEY & M. CHIRELSTEIN, CORPORATE FINANCE 82-99 (2d ed. 1979).

119. *Compare* Morris v. Cantor, 390 F. Supp. 817 (S.D.N.Y. 1975) (bondholder's claim under Trust Indenture Act upheld against bank's motion for summary judgment where bank, employed as trustee for bondholders, negotiated a loan with bondholder's debtor) *with* Lincoln Stores v. Grant, 309 Mass. 417, 34 N.E.2d 704 (1941) (no duty violated where corporate directors acquired substantial ownership share of competitor).

120. Morris v. Cantor, 390 F. Supp. 817 (S.D.N.Y. 1975).

121. During that period, the debtor also defaulted on a payment to the bondholders. *Id.* at 818.

122. The secured creditors will themselves have a freeriding problem as they over- or under-rely on each other's monitoring.

123. *See supra* p. 59.

124. When a firm uses a trustee as supermonitor, the proportion of the firm's debt that is secured is likely to be relatively high. This arrangement, however, does not affect the firm's debt-equity ratio.

c. *Preferred Shareholders*

The role of preferred stock in the corporate structure has remained a curious mystery in the corporate finance literature. Preferred stock offers neither the corporate issuer nor the shareholders the tax advantages associated with debt.[125] Its issuance can hardly allay creditors' concerns of potential misbehavior, because preferred stock, like additional debt, would seem to increase the temptation of risk alteration to the firm's managers.[126] The dividend preferences of preferred stock, however, can be understood as part of the "warning system" described in this Article. The firm's inability to meet preferred shareholders' claims in a timely way will send a powerful signal to the dispersed owners of the firm.[127] Moreover, this signal may eventually lead to a displacement of the managers who have been unable to meet the firm's expectations: the holders of preferred stock, voting as a class, may have the right to elect at least a majority of the corporation's directors after a specified number of dividend payments have been missed.[128]

Thus, although preferred stock does not encourage any active monitoring of the firm, it serves as a passive signalling device. Secured creditors (and the bondholders' trustee) are active monitors on the lookout for conversion, risk alteration, and missed payments; their signals are quite emphatic but are likely to involve transaction costs on the part of the debtor. These costs include the expense of monitoring the monitor in order to ensure that any surplus in the value of the collateral over the secured creditor's entitlement redounds to the debtor's benefit,[129] and of modifying the debtor's operation when an important asset is repossessed.[130] In contrast, preferred stock entails none of these costs. The firm might therefore

125. Corporate issuers can deduct interest but not dividend payments. Shareholders normally regard receipts with respect to preferred stock as ordinary income while bondholders may be able to treat receipts as return of capital. *See* B. BITTKER & J. EUSTICE, FUNDAMENTALS OF FEDERAL INCOME TAXATION OF CORPORATIONS AND SHAREHOLDERS § 4.08 (1980).

126. Assuming that the manager is not also a creditor, he will be tempted to engage in risk alteration at the expense of fixed claimants, *see supra* p. 52. If preferred shareholders are not entitled to interest-bearing cumulative arrearages, then they too must be seriously concerned about risk alteration.

127. The firm will be unable to pay common stock dividends and will find it difficult to raise more capital until the cumulative claims of preferred shareholders are met. *See* V. BRUDNEY & M. CHIRELSTEIN, *supra* note 118, at 174-78, 182-86.

128. *See* Baron v. Allied Artists Pictures Corp., 337 A.2d 653 (Del. Ch. 1975) (concerning charter that provided for preferred shareholders to elect majority of directors any time six or more quarterly dividends were not paid, whether or not such quarters were consecutive).

129. *See* U.C.C. § 9-504(2) (1977) (providing incentives for debtor to "monitor the monitor" by entitling debtor to claim surplus).

130. If the firm's operations will be seriously disturbed by the repossession of the collateral, the firm can be expected to choose to redeem the collateral by satisfying the claim of the secured party. *See id.* § 9-506. To accomplish this redemption, however, the firm may need to sell other assets and therefore have to modify its operations.

be understood as attempting to reduce its capital costs by choosing a desirable mix of active, relatively expensive monitors (secured creditors) and passive, relatively inexpensive monitors (preferred shareholders).[131] The passive monitoring role of preferred shareholders, furthermore, is consistent with the absence of a "preferred shareholders' trustee"; the freeriding problem among preferred shareholders is not important because they are not expected to expend resources on active monitoring.

The monitoring role of preferred stock, however, can be duplicated by carefully drawn provisions in a credit contract. The "income bond" is one example of such a contract; it provides that interest is payable only to the extent covered by corporate earnings.[132] Through their trustee, income bondholders may be able to provide some active monitoring.[133] Unlike preferred stock, however, income bonds do not offer a tool to displace incumbent managers.[134]

Corporate financial structures seem to have evolved as a result of the emergence of alternatives to preferred stock. Indeed, new issues of preferred stock have become quite rare.[135] The practice of public utilities constitutes a notable exception to this trend, but their use of preferred stock is probably explained by particular tax considerations[136] and by the vagaries of ratemaking.[137]

131. The less the preferred stock contract paralyzes a firm that misses dividend payments, the less the preferred stock dividends are like fixed claims.

132. For a description of a number of such "hybrid" securities, see W. CARY & M. EISENBERG, *supra* note 46, at 1112-13.

133. The cost of the trustee's services must ultimately be borne by the firm. Thus, if there are no good focal points for monitoring but the passive signals of preferred shareholders are useful, the firm might rationally opt for preferred stock rather than income bonds.

134. The "displacement" power of preferred shares may be obtained by the convertibility feature of many bonds. *See* W. CARY & M. EISENBERG, *supra* note 46, at 1144-47. Bondholders may convert in large enough numbers to affect the firm's decisionmaking. This relationship between monitoring and convertibility may shed light on the curious, if traditional, distaste for "upstream" convertibility. *See* MODEL BUSINESS CORP. ACT § 15(e) (1979). Potential monitors who could convert to more senior securities would be especially disinclined to contribute monitoring effort of their own. Certainly, the issue of "downsteam" convertible securities—which have been regarded as inapt combinations of apples and oranges (risk and certainty)—might be understood either as enabling monitors to follow up on their discoveries or as offering monitors a financial incentive to help the firm realize its upside potential even when its fixed obligations are easily met. *See* Klein, *The Convertible Bond: A Peculiar Package*, 123 U. PA. L. REV. 547, 548-60 (1975) (explaining the mixed fruit metaphor and offering admittedly unsatisfactory explanations for the combination).

135. J. VAN HORNE, FINANCIAL MANAGEMENT AND POLICY 631 (5th ed. 1980).

136. I.R.C. §§ 243, 244 (West 1982) allow corporate shareholders to exclude from their taxable income most or all of the dividends received from their investments. No such treatment is granted for interest receipts. Insurance companies and other corporations that traditionally invest in utilities thus prefer preferred stock to debt. The utilities prefer to retain some earnings of common stock to attract high tax bracket individual shareholders as well as corporate investors. *See* Fisher & Wilt, *Non-Convertible Preferred Stock as a Financing Instrument 1950-1965*, 23 J. FIN. 611 (1968).

137. Ratemaking commissions normally allow utilities a "fair" rate of return on assets. Utilities thus may seek to borrow funds so long as the rate allowed is greater than the cost of new debt. If the utility needs to be self-conscious about "overcapitalization" it may eschew debt but favor preferred stock so that its original owners can profit from the spread between the allowed rate of return and the

III. Some Normative Implications

The responsiveness of the firm's financial structure, as described in Part II, is but one example of the many ways in which institutions and rules can be understood as adapting to monitors and freeriders.[138] This Part considers the extent to which legal rules should incorporate enforcement considerations.

A. *Monitoring, Corporate Control Premiums, and Fair Shares*

Recall that the monitoring requirements of outside equity are greater the smaller the ownership share of the firm's controlling manager.[139] It follows that outside shareholders benefit when a single, large shareholder dominates the firm.[140] If this "controlleur" manages the firm's operations, then his tendency to misbehave is relatively low because he retains a large percentage of the firm's earnings. Outside shareholders are probably even better situated in an ownership structure that includes one relatively large shareholder as manager and another in outside equity (intent on monitoring). Self-interest will then keep agency costs to a minimum.[141]

The obligations of a controlleur and, in particular, the "sale of corporate control," have been discussed extensively in the legal literature,[142] but

cost of new capital. *See* F. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 483 (2d ed. 1980) (reviewing principle of fair return and possible effects on utilities' capital structures).

138. The responsiveness of legal rules to monitoring considerations is clear. Consider, for example, the different duties of care assigned to trustees of orphans' assets, corporate officers, and merchants. Orphans are often too young to engage in monitoring; their trustees are accordingly held to the highest standard. *See* 2 A. SCOTT, THE LAW OF TRUSTS § 170 (3d ed. 1967). Corporate insiders are monitored by somewhat more sophisticated investors (and by those hired to staff the firm's focal points) and are allowed the "business judgment" defense. *See* W. CARY & M. EISENBERG, *supra* note 46, at 518-53. Finally, merchants, who may be "monitored" by customers, competitors, and suppliers, do not seem to be required to meet any fiduciary standard. *See* Leff, *Unconscionability and the Code—The Emperor's New Clause,* 115 U. PA. L. REV. 485, 506-08, 543-46 (1967) (discussing unconscionability under U.C.C. § 2-302 in context of merchant-merchant dealings).

139. The more an agent's efforts benefit his principals and not himself, the more the principals might fear misbehavior given the divergence of interests between the principal and the agent. *See supra* p. 66; *infra* note 148.

140. This assumes stable behavior on the part of the controlling shareholder. A change in the distribution pattern of the firm's profits unilaterally made by the new controlling shareholder may result in temporary or periodic difficulties for the minority shareholders. For an illustrative case that may have arisen out of such a troubled relationship, see Berwald v. Mission Dev. Co., 40 Del. Ch. 509, 185 A.2d 480 (1962) (controlling shareholder potentially able to receive dividends in separate corporation and avoid or defer ordinary income tax cannot be compelled to make distribution of dividend to minority shareholders). With respect to monitoring considerations, the existence of a controlling shareholder will be beneficial to the extent that the interest of the minority is in line with that of the controlling shareholder.

141. The manager-shareholder will be relatively well-behaved. The monitor will have a strong interest in expending effort and, it might be supposed, will be unlikely to risk freeriding on the expected monitoring of smaller outside shareholders.

142. *See, e.g.*, Andrews, *The Stockholder's Right to Equal Opportunity in the Sale of Shares,* 78 HARV. L. REV. 505 (1965); O'Neal, *Sale of Control,* 4 J. CORP. L. 239 (1979).

little attention has been paid to related monitoring implications. Consider the case in which a controlling interest in a target company is sold by the outgoing controlleur to an acquirer for a price that reflects a significant premium above the recent market price for the target company's shares. Assume that this premium is greater than that normally obtainable from a buyer who suddenly demands many inframarginal holdings of potential sellers.[143] Assuming further the law's (and any available monitor's) ability to prevent the worst abuses, such as a plan by the acquirer with collusive assistance from the controlleur to "loot" the target,[144] the acquirer may be presumed to have a "better idea" for the management of the target so that the value of that company under the guidance of the new management may be expected to rise.[145]

Under this view, the target's small shareholders ought to be pleased over the sale of control. The greater the premium paid by the acquirer, the more confident they can be that they will freeride on the "coattails" of his better idea and benefit from his stewardship.[146] Salary and perquisites aside, the acquirer must rationally expect the target's shares to be worth even more than what he has paid for them. Small shareholders may actually be better off than the controlleur, who will enjoy no coattail effect. Certainly, some small shareholders might have preferred the immediate cash that the former controlleur enjoys, but it is appealing to argue that by his sale he has done his former minority shareholders no harm.[147] Ar-

143. A quantum leap in the demand for any product that is not the subject of very elastic demand will generally result in a discontinuous increase in the price for that product, reflecting the marginal price at which the last seller would be willing to exchange the item.

144. Regulation of the sale of corporate control will have a deterrent effect on "looters." *See* Javaras, *Equal Opportunity in the Sale of Controlling Shares: A Reply to Professor Andrews*, 32 U. CHI. L. REV. 420, 421-23 (1965). The discussion in the text, however, focuses on monitoring considerations and not on the deterrence of looting.

145. *See* Hazen, *The Sale of Corporate Control: Towards a Three-Tier Approach*, 4 J. CORP. L. 263 (1979); Javaras, *supra* note 144, at 427. It is perhaps fair to wonder, under this view, why so many acquirers pay substantial premiums to gain control of targets. There are three lines of response. First, the acquirer may be impatient to put his idea into effect and may fear that someone else will develop a competing, or even identical, idea. Second, although this acquirer's better idea for operating the target corporation may be an enormous improvement over the target's prior performance, other current buyers may have ideas for improvement as well. In order to outbid these competitors, the "best" acquirer must pay a substantial premium that, essentially, yields the selling shareholders some economic rent. This argument assumes that the competing ideas are firm-specific; that is, that they relate to the particular target corporation. Finally, even if the acquirer with the better idea has no competitor, the selling shareholders may realize that the better idea is firm-specific and that they offer as unique a good (the target) as does the acquirer (the idea). The theory of bilateral monopoly then explains that the resulting premium over the previous market price is hardly a surprise. For an excellent explanation of bilateral monopoly, see W. VICKREY, MICROSTATICS 115-16 (1964).

146. Part or all of the ride on the coattails may, of course, be put to an end by a "freezeout" in which remaining shareholders are forced to accept cash for their equity. *See* Brudney & Chirelstein, *A Restatement of Corporate Freezeouts*, 87 YALE L.J. 1354 (1978); Levmore, *Self-Assessed Valuation Systems for Tort and Other Law*, 68 VA. L. REV. 771, 847-58 (1982).

147. A freezeout *can* make some shareholders worse off, even under an equal payments compensation scheme, depending, for example, on their personal tax circumstances. *See* Toms, *Compensating*

guably, the surviving small shareholders are better off the more shares the acquirer has purchased, so long as they retain their shares. After all, the larger the acquirer's share of the target is, the less his incentive to misbehave will be.[148]

Consider, however, the classic situation presented in *Perlman v. Feldmann*.[149] Feldmann, the controlleur of Newport Steel Corporation, sold his interest to Wilport Company, a joint venture of several independent steel users, at a premium over the market price. A derivative suit was brought by some small shareholders against the sale. The subsequent success of that suit in the Second Circuit has been the focus of so many theories and commentaries that it is hardly necessary to detail the ambiguity of the decision's principle.[150] It does seem worthwhile, however, to examine the case from a monitoring cost perspective. The monitoring task of outside equity is likely to be more formidable when a parent corporation (such as Wilport) controls the firm than when an individual controlleur is at the helm because the former is itself a complex contractual construction with its own monitoring and freeriding problems. Following Feldmann's departure, a small shareholder of Newport would need to be anxious not only about the misbehavior that arises from the less-than-total ownership interest of the controlleur but also from the divergence of interests within the controlling block. Put numerically, assume an individual controlleur's influence results from his ownership of forty percent of the target's stock[151] and that this interest is sold to an acquirer that is, in turn, controlled by a manager who owns fifty percent of the acquirer's stock. The outgoing controlleur's incentive to misbehave can be traced to the sixty percent "divergence" between his own and the target's fortunes.[152] The new manager, however, has a stronger incentive to misbehave because he has but a twenty percent interest in the target. The divergence of interests between the controlleur and the target's minority shareholders is now greater: eighty as compared to sixty percent. A small shareholder of the target might well be disadvantaged by this greater incentive to misbehave, and by the consequently greater need for monitoring.[153]

Shareholders Frozen Out in Two-Step Mergers, 78 COLUM. L. REV. 548, 569-70 (1978).

148. Jensen & Meckling, *supra* note 1, at 313-16. *But cf. supra* p. 68 (doubting that every small change in ownership share affects managerial behavior).

149. 219 F.2d 173 (2d Cir. 1955).

150. *See* W. CARY & M. EISENBERG, *supra* note 46, at 699-700, 707-10 (citing events, theories, and refusals to abide by precedent that followed *Perlman*).

151. Through family and corporate relationships, Feldmann actually controlled and sold 33% of Newport's outstanding stock. The sale included another 4% held by his friends and associates. *See* 219 F.2d at 174 n.1.

152. Reputational interests and other factors, *see supra* pp. 60-63, are ignored for the purposes of the analysis here. The text focuses only on misbehavior that is related to the divergence of interests between shareholders and their agent.

153. Arguably, investors could be aware of this risk before purchasing shares. If that were the

Moreover, the quality as well as quantity of monitoring problems must be considered. Assuming that a parent corporation's duty to the noncontrolling shareholders of its subsidiary requires some "fair sharing"—that is, the parent may not selfishly dictate the terms of joint ventures and intercorporate transactions but must assign the rewards as they might have been after arm's length negotiations[154]—it is quite likely that monitoring is a more consuming task when the controlleur is a related corporation than when it is an individual such as Feldmann. The parent corporation might take more than its fair share by way of contractual arrangements for the subsidiary's assets, charges for fixed costs such as executives' salaries, tax avoidance strategies,[155] and imputed prices for goods and services exchanged between the two entities.[156] Thus, in addition to the quantitative monitoring differential that is typically generated by the sale of a controlling interest by an individual to a corporation, it seems fair to conclude that monitoring needs should be expected to increase because of the difficulties encountered in policing intercorporate transactions.[157] These monitoring considerations should be taken into account in fashioning legal rules governing relationships among shareholders.[158]

case, the stock's market price would reflect the expected value of the changing monitoring costs. This perspective, however, misses the social cost of agency relationships. Even if investors *expect* greater monitoring costs, the avoidance of these costs is beneficial (and ultimately reduces the cost of doing business).

154. For the classic statement on "fair shares," see Brudney & Chirelstein, *Fair Shares in Corporate Mergers and Takeovers*, 88 HARV. L. REV. 297 (1974). The argument is not, however, limited to organic changes but is applicable to all transactions between the corporate fiduciary and beneficiary. Nonmerger cases containing the issue of fair sharing include Lebold v. Inland Steel Co., 136 F.2d 876 (7th Cir.), *cert. denied*, 320 U.S. 787 (1943); Sinclair Oil Corp. v. Levien, 280 A.2d 717 (Del. 1971); Getty Oil Co. v. Skelly Oil Co., 267 A.2d 883 (Del. 1970). The fair-shares problem also arises in allocating tax savings between a parent corporation and its subsidiary. *Compare* Alliegro v. Pan Am. Bank, 136 So. 2d 656 (Fla. Dist. Ct. App. 1962) (parent corporation could not transfer gains of subsidiary for tax purposes where minority shareholders of the subsidiary had not approved of such procedure), *cert. denied*, 149 So. 2d 45 (Fla. 1963) *with* Case v. New York Cent. R.R., 15 N.Y.2d 150, 204 N.E.2d 643, 256 N.Y.S.2d 607 (1965) (parent corporation could transfer such gains for tax purposes inasmuch as minority shareholders of subsidiary had vital interest in parent corporation's continuing financial and operating viability).

The Brudney-Chirelstein view has been attacked from a number of directions. *See, e.g.*, Lorne, *A Reappraisal of Fair Shares in Controlled Mergers*, 126 U. PA. L. REV. 955 (1978); Toms, *supra* note 147. Virtually all commentators agree, however, that some monitoring on the part of minority shareholders is necessary.

155. Interestingly, the Internal Revenue Code does occasionally attempt to put minority shareholders of a subsidiary corporation in the same position as the controlling parent corporation. *See* I.R.C. § 337(d) (West 1982).

156. This aspect is difficult to monitor. The Internal Revenue Service will "assist" minority shareholders with their monitoring only when a tax liability is at stake—as when profits appear to be directed to the corporate entity with loss carryovers or with no domestic nexus. But these are unlikely to be situations in which the minority is being wronged.

157. On the other hand, if the sale is by a corporation to an individual, minority shareholders are likely to encounter decreased monitoring difficulties.

158. In other areas, legal rules could also be responsive to monitoring concerns. For example, the appropriate legal standard for judging the conduct of a trustee of a nonprofit institution might be

No quick conclusion concerning the legitimacy of Perlman's claim or the proper treatment of control premiums is possible. An extreme position is surely untenable; if, for example, sales of control that increased monitoring requirements were blocked unless premiums were shared, then the pooling of capital would be stymied and worthwhile projects would go untackled.[159] On the other hand, the "coattail" effect is easily overstated if the increased monitoring costs borne by the surviving outside equity owners are ignored. What is clear is that any analysis that ignores these suggested links is bound to be unsatisfactory.

B. *Monitoring and Standing*

Legal rules that assign "standing to sue" to some but not all interested parties can also be understood better by taking monitoring and freeriding considerations into account. Because an effective monitor must be able to trigger corrective action, it is no surprise that the freeriding problems associated with monitors and litigators are closely related. Consider, for example, the suggestion that creditors be able to sue derivatively on behalf of solvent corporations.[160] Traditionally, a creditor is unable to bring legal action against its solvent debtor unless the debtor has acted with actual intent to defraud creditors.[161] Although a court-appointed receiver or trus-

based upon the difficulty of monitoring that trustee. The few litigated cases that confront the question of proper legal standards offer conflicting precedents: Some apply a corporate standard (allowing a business judgment defense), others resort to stricter, classic trust principles, and others avoid the question. *Compare* George Pepperdine Found. v. Pepperdine, 126 Cal. App. 2d 154, 271 P.2d 600 (1954) (denying liability of president and former directors of charitable corporation for actions taken in good faith) *with* Marsh, *Governance of Non-Profit Organizations: An Appropriate Standard of Conduct for Trustees and Directors of Museums and Other Cultural Institutions*, 85 DICK. L. REV. 607, 619-20 (1981) (citing cases in which courts will not protect business judgment of nonprofits' trustees) *and* Stern v. Lucy Webb Hayes Nat'l Training School for Deaconesses & Missionaries, 381 F. Supp. 1003, 1013, 1019 (D.D.C. 1974) (suggesting that any possibility of conflicts of interest must be avoided and that stricter standards of care may apply to trustees of nonprofit charitable hospital than to corporate directors). It has been suggested, *see* Marsh, *supra*, at 622-27, that a museum's trustee should be held to the standard of the corporate manager because the trustee's decisions are similar to those of corporate managers. This approach overlooks monitoring considerations. A better argument for relaxing the classical trustee standard in judging a nonprofit institution's trustee would rely on the monitoring of the institution's activities that is carried on—at no direct cost to the beneficiaries—by local media, peer institutions, internal whistle-blowers, professional associations, and even the Internal Revenue Service. In fact, the most visible nonprofit institutions, such as large universities and art museums, are so intensely monitored from within and without that a standard even more relaxed than that applied to corporate managers may actually be appropriate. It is interesting to note that the court in *Stern* observed that the defendant hospital was "not closely regulated by any public authority, . . . has no responsibility to file financial reports, and its Board is self-perpetuating." 381 F. Supp. at 1019.

159. For a discussion of efficiency costs resulting from a premium sharing rule, see Easterbrook & Fischel, *Corporate Control Transactions*, 91 YALE L.J. 698, 705-14 (1982).

160. *See* Note, *Creditors' Derivative Suits on Behalf of Solvent Corporations*, 88 YALE L.J. 1299 (1979).

161. *See* McCoid, *Bankruptcy, Preferences, and Efficiency: An Expression of Doubt*, 67 VA. L. REV. 249, 253-57 (1981); *see also* Note, *supra* note 160, at 1300 & n.11 (discussing limitation upon creditor's rights where debtor is solvent).

tee can generally enforce a corporation's claim against its misbehaving manager, only creditors of an insolvent firm will succeed in urging such an appointment.[162] The suggestion that creditors be able to sue the misbehaving managers of nondefaulting firms seems a reasonable one given that both return and risk are essential components of the credit contract.[163] If a creditor's actual return is for some reason less than expected, as when the debtor sends an incomplete interest payment, the creditor is entitled to litigate and correct the wrong he has suffered. Similarly, when the debtor's manager misbehaves in a way that directly damages the shareholder's equity, the *creditors* of the firm have reason to be disappointed, for the smaller equity cushion makes the debtor somewhat less likely to repay its loans. Thus, the argument runs, the creditors of even solvent corporations ought to have standing to object to managerial misbehavior because they suffer an expectational loss in the form of increased risk that is as valuable as a certain amount of decreased return.

If transaction costs were low, creditors might be expected to bargain for explicit contractual provisions concerning managerial misbehavior, such that discovered breaches of these covenants would constitute actionable default. Moreover, the debtor might be expected to encourage and enable such "homemade standing" because the creditor's suits will surely be a useful part of the firm's monitoring-warning system.[164] The absence of explicit contractual provisions that, in effect, grant such standing to creditors might be explained by the costs of drafting such provisions.[165] On one level, then, it would seem that the law should assist the parties and permit "creditor standing."

Creditor standing would benefit small shareholders facing serious freeriding problems. In a firm with no large shareholder in a managerial or monitoring position, and in which specific firm assets are convenient focal points for observing managerial misbehavior, the monitoring role of secured creditors is especially useful.[166] Liberalizing creditor-standing rules would clearly benefit such firms by easing the task of their most able monitors. But liberalized creditor-standing rules may disadvantage other firms. Recall that small, outside shareholders are particularly comfortable

162. *See, e.g.*, DEL. CODE ANN. tit. 8, § 291 (1975); N.Y. BUS. CORP. LAW §§ 1201, 1202(a)(2) (McKinney 1963).

163. *See* W. KLEIN, *supra* note 8, at 155; Note, *supra* note 160, at 1305-06.

164. *See supra* pp. 70-71.

165. In the absence of transaction costs (and sensitive voting arrangements among investors), a creditor might purchase some of the debtor's stock and watch for misbehavior that hurts both creditors and shareholders, and then litigate as a shareholder (although motivated as a creditor).

166. Stated in a way that reflects the underlying causal elements, managers will find that to raise capital for new projects they must pay a relatively high price for outside equity but a relatively low price for some combination of outside debt (some of it secured) and outside equity.

in firms that have a major outside shareholder,[167] because such a shareholder will normally be a highly motivated monitor.[168] The grant of standing to creditors would not appeal to the small shareholder in this context. The combined monitoring interest and litigating power of the firm's creditors might reduce the large shareholder's monitoring incentive and lead him to freeride on the creditor's efforts. Thus, firms with financial structures presently supporting efficient monitoring would probably be worse off with liberal creditor-standing rules, for such rules could introduce freeriding difficulties.

Ideally, perhaps, creditor-standing rules might be available in some settings and not others. It is, however, difficult to distinguish prospectively among desirable and undesirable settings.[169] The prevailing limitation on creditor standing might therefore be understood as preventing freeriding problems in some circumstances and relying on the potential for explicit covenants granting standing in others. Any rational reexamination of creditor standing, however, ought to weigh the benefits and freeriding costs of a more liberal rule.[170]

Conclusion

The nature of human behavior and of interactive enterprises compels the consideration of monitoring efforts in describing and assessing legal institutions and relationships. Although the importance of monitoring

167. *See supra* p. 76.

168. Note that such a firm is likely to have relatively little secured debt because there is little role for creditors as monitoring agents.

169. For example, even if the structure of outside equity (the presence of a large noncontrolling shareholder) is accepted as a proxy for the quality of the monitoring likely to occur, creditors can hardly be told that their power to litigate may change as shares are exchanged and the structure of outside equity is altered.

In reality, the creditors most likely to serve as monitors, such as commercial banks, often enjoy low transaction costs and can, therefore, either bargain for covenants that will generate legal standing when needed or actually purchase shares of the debtor.

170. The relationship between monitoring and standing is also important in other contexts. Consider, for example, the requirement in most of tort law that the plaintiff suffer actual damage rather than just exposure to the risk. *See* Mink v. University of Chicago, 460 F. Supp. 713 (N.D. Ill. 1978) (allegations concerning experiment that increased risk of cancer—but caused no direct physical injury—not sufficient to support cause of action for negligence); *see also* C. GREGORY, H. KALVEN & R. EPSTEIN, CASES AND MATERIALS ON TORTS 967-72 (3d ed. 1977) (recovery for negligent infliction of emotional harm unlikely without actual physical injury). Thus, ten pedestrians frightened by a negligent driver may have no remedy for the risks they experience, much like the creditor of a solvent but misbehaving debtor. If one of these pedestrians is hit by the driver, the law will require the payment of damages for the "outcome" actually generated. It could, alternatively, focus on "risk-creation" and require a payment (into a superfund available for actual hospital bills, for example) for each "scare," thus providing identical (ex ante) deterrence from the negligent driving. Arguably, the risk-creation system, with its provision of liberal standing, is flawed because of its monitoring weakness: no single pedestrian has much incentive to report negligent driving.

Of course, other areas of law often elicit payment for risk-creation, including speeding and driving under the influence of alcohol. But the discussion in this section does not dwell on "mixed-monitoring" systems actually in place and limits itself to the design of standing rules.

costs has been discussed in some specific contexts, it has not been recognized as a pervasive feature of economic and legal arrangements. Moreover, the influence of freeriding behavior on monitoring efforts has received little attention outside the context of corporate shareholders. This Article has sought to undertake a broader analysis of freeriding problems among monitors. It has described the financial structure of firms as responsive to monitoring and freeriding considerations and has argued that legal rules ought to pay attention to such considerations. Although there are numerous forces and components that shape business ventures, an understanding of monitors, freeriders, and the reactions they produce contributes to a richer appreciation of enterprises and of the rules that govern their behavior. Inasmuch as self-interested parties also play prominent roles outside the business context, inquiries regarding a wide variety of legal rules might be enriched by analyses such as those undertaken in this Article.

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