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Limited Liability and the Corporation

Frank H. Easterbrook†

Daniel R. Fischel††

Limited liability is a fundamental principle of corporate law. Yet liability has never been absolutely limited. Courts occasionally allow creditors to “pierce the corporate veil,” which means that shareholders must satisfy creditors’ claims. “Piercing” seems to happen freakishly. Like lightning, it is rare, severe, and unprincipled. There is a consensus that the whole area of limited liability, and conversely of piercing the corporate veil, is among the most confusing in corporate law.¹

We argue to the contrary that economic analysis—in particular the theory of the firm and the economics of insurance—explains the legal treatment of limited liability. Both the rules and the exceptions serve valuable functions.

I. INTRODUCTION

It may be helpful to recall what limited liability is. The liability of “the corporation” is limited by the fact that the corporation is not real. It is no more than a name for a complex set of contracts among managers, workers, and contributors of capital. It has no existence independent of these relations. The rule of limited liability

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¹ One commentator described the legal analysis as jurisprudence by metaphor or epithet. It does not contribute to legal understanding because it is an intellectual construct, divorced from business realities. The metaphors are no more than conclusory terms, affording little understanding of the considerations and policies underlying the court’s actions and little help in predicting results in future cases As a result, we are faced with hundreds of decisions that are irreconcilable and not entirely comprehensible. Few areas of the law have been so sharply criticized by commentators.

PHILIP BLUMBERG, *THE LAW OF CORPORATE GROUPS: PROCEDURAL PROBLEMS IN THE LAW OF PARENT AND SUBSIDIARY CORPORATIONS* 8 (1983) (footnote omitted).

ity means that the investors in the corporation are not liable for more than the amount they invest. A person who pays \$100 for stock risks that \$100, but no more. A person who buys a bond for \$100 or sells goods to the firm for \$100 on credit risks \$100, but no more. The managers and the other workers are not vicariously liable for the firm's deeds. No one risks more than he invests.

Limited liability is not unique to corporations. Indeed it is the rule. Suppose a bank lends \$100 to a partnership, and the partnership's liabilities later greatly exceed its assets. (Perhaps the partnership buries toxic waste and incurs stupendous costs of cleaning up the mess.) The bank may lose the \$100, but it will not be required to contribute any additional capital. Its liability is limited to its investment, exactly as the shareholder's liability is limited in a corporation.

The instances of "unlimited" liability are few. The general partners of a partnership may be required to contribute additional capital to satisfy the association's debts. Even here, though, a discharge in bankruptcy enables the partner to limit his liability to the assets he possesses at the time the partnership requires more capital. Limitations on liability turn out to be pervasive.

In order to understand these limitations on further contributions of capital, it is necessary to ask two questions. First, why are the contributions of investors *ever* limited? Why do equity and debt investors risk no more than the amount of their investments? Second, why is risk sometimes shifted among the investors? The equity investors in a corporation lose their investments before the debt investors do. Debt consequently is less risky. Why is this beneficial? And if the reallocation of some risk is beneficial, why aren't there gains from greater reallocations, such as requiring equity investors to chip in additional capital, thus reducing the debt investors' risk even further?

In addressing these questions, we do not write on a clean slate. Henry Manne, in an important contribution, argues that the modern publicly held corporation with many small shareholders could not exist without limited liability.² If investors could be required to supply unlimited amounts of additional capital, wealthy people would be reluctant to make small investments. Every share of stock would place all of their personal assets at risk. To guard against this risk, the investor would reduce the number of different firms he holds and monitor each more closely.

² Manne, *Our Two Corporation Systems: Law and Economics*, 53 VA. L. REV. 259 (1967).

Manne's insight is powerful but incomplete. Limited liability does not eliminate the risk of business failure but rather shifts some of the risk to creditors. The creditors can invest in T-bills and other riskless securities, and they will not make risky investments in firms unless offered more interest, which comes out of the shareholders' returns. Why are the increased returns demanded by creditors not exactly offset by the lower returns paid to shareholders? Manne's analysis does not explain why creditors bear as much risk as they do.

There are several reasons why the value of the firm might be maximized if creditors bear a substantial portion of the risk of business failure. Richard Posner maintains that creditors might be appropriate risk bearers because they are less risk averse than stockholders or have superior information.³ We find this implausible. Creditors are generally more risk averse than stockholders; why else do creditors arrange for the equity claimants to bear the most risk? Creditors accept a lower rate of return on investment precisely because the stockholders are wiped out first. The variance of stockholders' returns is greater; they take the most risk and reap the gains if the firms do well.

The possibility that creditors might be the superior risk bearers because of superior information has considerably more appeal, but it cannot completely explain limited liability. It does not explain, for example, why investors need not contribute more capital to satisfy the claims of involuntary (tort) creditors. Moreover, though creditors may sometimes possess superior information, this will not always be true. To the contrary, we expect creditors to know less. The equity investors have the residual claim. They stand to gain or lose almost the whole value of modest fluctuations in the fortunes of the firm. The residual claimants therefore have incentives to invest in the amount of monitoring likely to produce these gains (or avoid the losses), net of the costs of monitoring.⁴ Debt claimants, protected by the "equity cushion," are more likely to be ignorant. They might do more monitoring if debt claims were more concentrated than equity claims, so that there would be less free riding on information, but no data show dramatic differences in the concentration of holdings.

³ Posner, *The Rights of Creditors of Affiliated Corporations*, 43 U. CHI. L. REV. 499 (1976).

⁴ See Easterbrook & Fischel, *Voting in Corporate Law*, 26 J.L. & ECON. 395, 402-06 (1983); Fama & Jensen, *Agency Problems and Residual Claims*, 26 J.L. & ECON. 327, 331-32 (1983).

Halpern, Trebilcock, and Turnbull have advanced a different explanation for limited liability.⁵ Their stimulating article argues that limited liability is necessary for the existence of an organized securities market. If equity investors could be required to contribute additional capital, the value of shares would not be the same to every investor. The greater a particular investor's wealth in relation to that of other investors in the same firm, the higher the probability that the investor's personal wealth would be reached in the event of corporate default. The greater the anticipated cost of this additional capital contribution, the less this investor would be willing to pay for shares. Because different investors would attach different values to shares, depending on the investors' wealth, it would be impossible to conduct an organized liquid market. Limited liability makes markets possible.

The relation between limited liability and organized securities markets is fundamental to an understanding of the rule of limited liability, but it is not a complete explanation. Indeed in one sense it merely restates the question. Why is it important for the residual claimants of one kind of firm (publicly held corporations) to have access to organized securities markets while residual claimants of other firms (partnerships, close corporations, cooperatives, and so forth) do not? A complete explanation of limited liability must answer this question. A related point is that organized securities markets provide benefits that cannot be completely appropriated by the participants. Unless investors in a firm can capture private benefits exceeding the private costs, they will not incur these costs. An understanding of why some firms but not others incur the costs of participation in an organized securities market sheds much light on the rationale of limited liability.

Finally, why could markets with unlimited liability not be organized in ways that would prevent wealth from making a difference? Firms could obtain insurance for the investors, or the actual investments could be made by clearing houses or other intermediaries with constant wealth. Investors in futures markets regularly put at risk more than their initial investments, but guarantees issued by brokers and clearing houses permit the operation of liquid markets. An explanation of limited liability must establish why we do not see risk shifting or guarantees of this sort among investors in corporations.

We provide an explanation for why limited liability facilitates

⁵ Halpern, Trebilcock & Turnbull, *An Economic Analysis of Limited Liability in Corporation Law*, 30 U. TORONTO L.J. 117 (1980).

the corporate form of organization. We show in Part II that the distinctive aspects of the publicly held corporation—delegation of management to a diverse group of agents and risk bearing by those who contribute capital—depend on an institution like limited liability. We also argue that (voluntary) creditors as well as stockholders benefit from a rule of limited liability. If limited liability were not provided by law, firms would attempt to create it by contract. The legal rule enables firms to obtain the benefits of limited liability at lower cost.

In Part III we discuss the perennial question whether limited liability allows stockholders to transfer the risk of business failure to creditors. Although the existence of involuntary creditors ensures the existence of uncompensated risk, its magnitude is minimized by firms' incentives to insure. We discuss why firms might choose to insure and why it is not worthwhile for them to insure completely. We analyze in Part IV the rules for piercing the corporate veil. We argue that the various formulations that have been advanced by courts can be understood, at least roughly, as attempts to balance the benefits of limited liability against the costs associated with excessive risk taking. Finally, we consider in Part V a variety of other legal doctrines that are or could be used to reduce the probability of uncompensated risk transfers.

II. THE RATIONALE OF LIMITED LIABILITY

We begin this section with a discussion of the relation between the theory of the firm and limited liability. We then analyze the effect of limited liability on firms' cost of capital.

A. Limited Liability and the Theory of the Firm

People can conduct economic activity in many forms. Those who perceive entrepreneurial opportunities must decide whether to organize a sole proprietorship, general or limited partnership, business trust, close or publicly held corporation. Debt investors in all of these ventures possess limited liability. Equity investors in publicly held corporations, limited partnerships, and business trusts do too. Limited liability for equity investors has long been explained as a benefit bestowed on investors by the state. It is much more accurately analyzed as a logical consequence of the differences among the forms for conducting economic activity.

Publicly held corporations typically dominate other organizational forms when the technology of production requires firms to combine both the specialized skills of multiple agents and large

amounts of capital.⁶ The publicly held corporation facilitates the division of labor. The distinct functions of managerial skills and the provision of capital (and the bearing of risk) may be separated and assigned to different people—workers who lack capital, and owners of funds who lack specialized production skills. Those who invest capital can bear additional risk, because each investor is free to participate in many ventures. The holder of a diversified portfolio of investments is more willing to bear the risk that a small fraction of his investments will not pan out.

Of course this separation of functions is not costless. The separation of investment and management requires firms to create devices by which these participants monitor each other and guarantee their own performance. Neither group will be perfectly trustworthy. Moreover, managers who do not obtain the full benefits of their own performance do not have the best incentives to work efficiently. The costs of the separation of investment and management (agency costs) may be substantial. Nonetheless, we know from the survival of large corporations that the costs generated by agency relations are outweighed by the gains from separation and specialization of function. Limited liability reduces the costs of this separation and specialization.⁷

First, limited liability decreases the need to monitor. All investors risk losing wealth because of the actions of agents. They could monitor these agents more closely. The more risk they bear, the more they will monitor. But beyond a point more monitoring is not worth the cost. Moreover, specialized risk bearing implies that many investors will have diversified holdings. Only a small portion of their wealth will be invested in any one firm. These diversified investors have neither the expertise nor the incentive to monitor the actions of specialized agents. Limited liability makes diversification and passivity a more rational strategy and so potentially reduces the cost of operating the corporation.

Of course, rational shareholders understand the risk that the managers' acts will cause them loss. They do not meekly accept it. The price they are willing to pay for shares will reflect the risk. Managers therefore find ways to offer assurances to investors with-

⁶ For a fuller analysis, see Fama, *Agency Problems and the Theory of the Firm*, 88 J. POL. ECON. 288 (1980); Fama & Jensen, *supra* note 4; Fama & Jensen, *Separation of Ownership and Control*, 26 J.L. & ECON. 301 (1983).

⁷ Firms develop a large number of other devices that reduce the costs of the agency relation. See generally AGENCY: THE STRUCTURE OF BUSINESS (J. Pratt & R. Zeckhauser eds. forthcoming); Easterbrook, *Managers' Discretion and Investors' Welfare: Theories and Evidence*, DEL. J. CORP. L. (forthcoming).

out the need for direct monitoring; those who do this best will attract the most capital from investors. Managers who do not implement effective controls increase the discount. As it grows, so does the investors' incentive to incur costs to reduce the divergence of interest between specialized managers and risk bearers.⁸ Limited liability reduces these costs. Because investors' potential losses are "limited" to the amount of their investment as opposed to their entire wealth, they spend less to protect their positions.

Second, limited liability reduces the costs of monitoring other shareholders.⁹ Under a rule exposing equity investors to additional liability, the greater the wealth of other shareholders, the lower the probability that any one shareholder's assets will be needed to pay a judgment. Thus existing shareholders would have incentives to engage in costly monitoring of other shareholders to ensure that they do not transfer assets to others or sell to others with less wealth. Limited liability makes the identity of other shareholders irrelevant and thus avoids these costs.

Third, by promoting free transfer of shares, limited liability gives managers incentives to act efficiently. We have emphasized that individual shareholders lack the expertise and incentive to monitor the actions of specialized agents. Investors individually respond to excessive agency costs by disinvesting. Of course, the price at which shareholders are able to sell reflects the value of the firm as affected by decisions of specialized agents. But the ability of individual investors to sell creates new opportunities for investors as a group and thus constrains agents' actions. So long as shares are tied to votes, poorly run firms will attract new investors who can assemble large blocs at a discount and install new managerial teams.¹⁰ This potential for displacement gives existing managers incentives to operate efficiently in order to keep share prices high.

Although this effect of the takeover mechanism is well known, the relation between takeovers and limited liability is not. Limited liability reduces the costs of purchasing shares. Under a rule of limited liability, the value of shares is determined by the present value of the income stream generated by a firm's assets. The iden-

⁸ See Jensen & Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 313 (1976).

⁹ See Halpern, Trebilcock & Turnbull, *supra* note 5.

¹⁰ See Easterbrook & Fischel, *supra* note 4; Easterbrook & Fischel, *Corporate Control Transactions*, 91 YALE L.J. 698 (1982); Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110 (1965).

tity and wealth of other investors is irrelevant. Shares are fungible; they trade at one price in liquid markets. Under a rule of unlimited liability, as Halpern, Trebilcock, and Turnbull emphasized, shares would not be fungible. Their value would be a function of the present value of future cash flows *and* of the wealth of shareholders. The lack of fungibility would impede their acquisition. An acquiror who wanted to purchase a control bloc of shares under a rule of unlimited liability might have to negotiate separately with individual shareholders, paying different prices to each. Worse, the acquiror in corporate control transactions typically is much wealthier than the investors from which it acquires the shares. The anticipated cost of additional capital contributions would be higher to the new holder than the old ones. This may be quite important to a buyer considering the acquisition of a firm in financial trouble, for there would be a decent chance of being required to contribute to satisfy debts if the plan for revitalization of the firm should go awry. Limited liability allows a person to buy a large bloc without taking any risk of being surcharged, and thus it facilitates beneficial control transactions. A rule that facilitates transfers of control also induces managers to work more effectively to stave off such transfers, and so it reduces the costs of specialization whether or not a firm is acquired.

Fourth, limited liability makes it possible for market prices to impound additional information about the value of firms. With unlimited liability, shares would not be homogeneous commodities, so they would no longer have one market price. Investors would therefore be required to expend greater resources analyzing the prospects of the firm in order to know whether "the price is right." When all can trade on the same terms, though, investors trade until the price of shares reflects the available information about a firm's prospects. Most investors need not expend resources on search; they can accept the market price as given and purchase at a "fair" price.¹¹

Fifth, as Henry Manne emphasized, limited liability allows more efficient diversification. Investors can minimize risk by owning a diversified portfolio of assets. Firms can raise capital at lower costs because investors need not bear the special risk associated with nondiversified holdings. This is true, though, only under a

¹¹ See J. LORIE & M. HAMILTON, *THE STOCK MARKET: THEORIES AND EVIDENCE* (1973); Fischel, *Use of Modern Finance Theory in Securities Fraud Cases Involving Actively Traded Securities*, 38 *BUS. LAW.* 1 (1982); Gilson & Kraakman, *The Mechanisms of Market Efficiency*, 70 *VA. L. REV.* 549 (1984).

rule of limited liability or some good substitute. Diversification would increase rather than reduce risk under a rule of unlimited liability. If any one firm went bankrupt, an investor could lose his entire wealth. The rational strategy under unlimited liability, therefore, would be to minimize the number of securities held. As a result, investors would be forced to bear risk that could have been avoided by diversification, and the cost to firms of raising capital would rise.

Sixth, limited liability facilitates optimal investment decisions. When investors hold diversified portfolios, managers maximize investors' welfare by investing in any project with a positive net present value. They can accept high-variance ventures (such as the development of new products) without exposing the investors to ruin. Each investor can hedge against the failure of one project by holding stock in other firms. In a world of unlimited liability, though, managers would behave differently. They would reject as "too risky" some projects with positive net present values. Investors would want them to do this because it would be the best way to reduce risks.¹² By definition this would be a social loss, because projects with a positive net present value are beneficial uses of capital.

Both those who want to raise capital for entrepreneurial ventures, and society as a whole, receive benefits from limited liability. The equity investors will do about as well under one rule of liability as another. Every investor must choose between riskless T-bills and riskier investments. The more risk comes with an equity investment, the less the investor will pay. Investors bid down the price of equity until, at the margin, the risk-adjusted returns of stock and T-bills are the same. So long as the rule of liability is known, investors will price shares accordingly.¹³ The choice of an inefficient rule, however, will shrink the pool of funds available for investment in projects that would subject investors to risk. The increased availability of funds for projects with positive net values is the real benefit of limited liability.

¹² In the jargon of portfolio theory, when investors are or can be diversified, managers should consider only systematic risk in making decisions. When investors cannot diversify their holdings, managers should consider both systematic and unsystematic risk. The consideration of unsystematic risk may lead them to forgo profitable investments.

¹³ This is an implication of the Coase Theorem. Coase, *The Problem of Social Cost*, 3 J.L. & Econ. 1 (1960).

B. Limited Liability and Firms' Cost of Capital

Limited liability does not eliminate the risk of business failure. Someone must bear that loss. Limited liability is an arrangement under which the loss largely lies where it falls. Loss is swallowed rather than shifted. Each investor has a guaranteed maximum on the loss he will bear. In a firm with debt, that guaranteed maximum is combined with a preference for the debtholder. The shareholder is wiped out first. To this extent risk is "shifted" from debt investor to equity investor. In a regime of unlimited liability still more risk would be shifted.

Because someone must bear the entire risk of business failure under any rule, some have argued that the importance of limited liability has been exaggerated.¹⁴ The benefit to stockholders from limited liability, the argument runs, is exactly offset by the detriment to creditors. Stockholders are more secure and so demand a lower rate of return under limited liability, but creditors demand a higher rate; the opposite is true under unlimited liability. The firm's cost of capital, the argument continues, is the same under either rule. (We postpone to Part III the question of tort creditors, who are not compensated for bearing risks.)

The validity of this argument depends on whether the risk that the value of the firm will be less than the value of the creditors' claims can be borne equally well by creditors and stockholders. Several factors are pertinent to this question: the extent of common interests, relative monitoring costs, relative information and coordination costs, and attitudes toward risk.

1. *The Extent of Common Interests.* The argument that firms' cost of capital does not vary with the liability rule depends on the assumption that the benefit to stockholders from limited liability is exactly offset by the detriment to creditors. This assumption is false, for the reasons developed in Part II-A.

Consider the relation between limited liability and takeover bids. Takeovers are beneficial for shareholders—takeovers are a mechanism for transferring assets to higher-valued uses, and even the threat of takeover provides managers with an incentive to operate efficiently and keep share prices high. The effect of takeovers on creditors is less clear. Managers who pursue an overly conservative investment strategy that benefits creditors but does not maxi-

¹⁴ Ekelund & Tollison, *Mercantilist Origins of the Corporation*, 11 BELL J. ECON. 715, (1980); Meiners, Mofsky & Tollison, *Piercing the Veil of Limited Liability*, 4 DEL. J. CORP. L. 351 (1979).

mize the value of the firm, for example, may be ousted in a takeover. Thus some takeovers may cause creditors to be worse off ex post. But so long as takeovers increase the probability that the value of firms' assets will be maximized, shareholders and creditors, joint claimants on a bigger pie, will be better off. Thus a regime including takeovers benefits creditors as well as shareholders.¹⁵ The other effects are straightforward, too. The capital market is more likely to be efficient under a rule of limited liability. An efficient capital market generates price signals that are useful to all investors in a firm, including creditors. Limited liability decreases the cost of searching for good investments for creditors as well as stockholders.

2. *Relative Monitoring Costs.* Shareholders have less reason to incur costs in monitoring managers and other shareholders under limited than under unlimited liability. The decreased incentive to monitor managers is arguably offset by the increased incentive of creditors to monitor managers' actions. But this will not happen because of the preference among the investors. Because equity investors lose their investments first, they will have a greater interest in monitoring the firm. Indeed, this intra-investor preference is an important ingredient in a system of optimal monitoring. Concentrating the entire marginal gain and loss on one group of investors induces them to make the appropriate expenditures on monitoring (or to sell to someone who will), while enabling the more secure investors to avoid making redundant expenditures. The secured creditor has the safest claim of all and may elect to monitor only the state of its security rather than the state of the whole firm. Secured debt thus may be a way of reducing monitoring costs still further.¹⁶

So debt claimants do not increase their monitoring of managers to offset shareholders' reductions exactly. Moreover, debt investors do not incur costs that offset the reduction of intra-shareholder monitoring under limited liability. The wealth of other creditors is irrelevant whether or not shareholders possess limited liability, because creditors possess limited liability under either rule. Thus monitoring costs are lower when both shareholders and

¹⁵ The available evidence suggests that shareholders gain and creditors do not lose in control transactions. Asquith & Kim, *The Impact of Merger Bids on the Participating Firms' Security Holders*, 37 J. FIN. 1209 (1982).

¹⁶ This argument avoids the critique Alan Schwartz offers of previous efforts to explain secured debt. Compare Schwartz, *The Continuing Puzzle of Secured Debt*, 37 VAND. L. REV. 1051, 1055-59 (1984), with Levmore, *Monitors and Freeriders in Commercial and Corporate Settings*, 92 YALE L.J. 49, 55-59 (1982).

creditors possess limited liability than when only creditors do.

3. *Relative Information and Coordination Costs.* Another reason why shareholders pay creditors to assume more of the risk of business failure might be that the creditors possess a comparative advantage in monitoring particular managerial actions. As we have stressed, individual shareholders, specialized suppliers of capital, do not actively monitor managers' actions. They rely on third parties (such as large institutional holders or prospective contestants for control) to do so and buy shares at appropriate moments. Though the debt investors do not have the residual claim, and thus do not have optimal incentives to monitor day-to-day activities, they may be especially well suited to watch certain kinds of conduct.

Banks and other institutional investors tend to have specialized knowledge about particular industries and may be good monitors of major decisions such as building new plants. The lender may provide financing to several firms in an industry and thus augment its knowledge. These debt investors commonly negotiate detailed contracts giving them the right to disapprove managers' decisions that are important enough to create significant new risk for the firm, though perhaps not important enough to spark a contest for control.

An investor's possession of particular information does not, however, explain why an investment takes the form of debt rather than equity. Lower coordination costs might explain debt financing. Compare the situation of a sophisticated shareholder with a sophisticated creditor (or the indenture trustee for a group of creditors). Even if the sophisticated shareholder has the ability to monitor, he has little incentive to do so. He bears all the costs, but the benefits accrue to all other shareholders according to the size of their holdings. The creditor, by contrast, captures more of the benefits of his monitoring activity, because there are fewer other members of the same class of investor. When there are many creditors of the same class, the indenture trustee is the response to the free-rider problem. Because the costs of monitoring by the trustee are shared by all the bondholders of a particular class, the trustee is not plagued by the same coordination problems facing any individual investor.¹⁷ When creditors have lower coordination and infor-

¹⁷ For a discussion of the role of secured creditors and indenture trustees in overcoming the free-rider problem, see Levmore, *supra* note 16, at 68-73. The introduction of multiple classes of investors creates problems of its own, but we do not address them here. See Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors' Bargain*, 91 YALE L.J.

mation costs than shareholders, limited liability has a clear advantage. Because creditors bear more of the risk of business failure under a rule of limited liability, they have more incentive to employ their knowledge.

4. *Attitudes Toward Risk.* Both equity and debt investors can diversify their holdings, thus minimizing the risk of investing in any one firm. Economy-wide (systematic) risk, however, cannot be eliminated by diversification. Where two parties are risk averse, the optimal contractual arrangement is one in which each bears some risk.¹⁸ Limited liability is such a risk-sharing arrangement. Under limited liability, both shareholders and creditors risk the loss of their investments; under unlimited liability, shareholders would bear almost all risk. Risk sharing therefore might be a good explanation of limited liability.

C. Insurance as an Alternative to Limited Liability

The advantages of limited liability suggest that, if it did not exist, firms would attempt to invent it. One close substitute is insurance. If firms could purchase insurance to cover their liabilities to debt investors, the firms' structure would be much the same as now.¹⁹ Shareholders' liability would be limited to the amount of their investment; creditors would receive a lower rate of return because of their greater security.

The firm could purchase insurance for investors as a group. (The transaction costs of shareholders individually purchasing insurance would be prohibitive. Each shareholder would have to negotiate with the insurer. The insurer would have to monitor the wealth of the insured and all other shareholders to assess the riskiness of its own position.) The firm could buy its insurance from existing creditors, a separate insurer, or both. It would make a decision based on factors including relative information and coordination costs.

In some circumstances creditors might have a comparative ad-

857 (1982).

¹⁸ For applications of this point, see Marcus, *Risk Sharing and the Theory of the Firm*, 13 *BELL J. ECON.* 369 (1982); Polinsky, *Risk Sharing through Breach of Contract Remedies*, 12 *J. LEGAL STUD.* 427, 433 (1983); Shavell, *Risk Sharing and Incentives in the Principal-Agent Relationship*, 10 *BELL J. ECON.* 55, 65 (1979).

¹⁹ Halpern, Trebilcock & Turnbull, *supra* note 5, at 138-45, also analyze the combination of unlimited liability and insurance as an alternative to limited liability. Their perspective is somewhat different from ours. We are more optimistic than they that insurance markets could exist in a world of unlimited liability. Indeed, as we discuss below, corporations obtain insurance despite the existence of limited liability.

vantage in assessing the riskiness of a transaction initially and superior ability to monitor the conduct of the firm for the duration of the agreement. In that event, the firm would buy its insurance from the creditors. This is essentially what we observe. The creditors assume some risks of business failure, just as they would if they were "insurers" as well as creditors. The legal rule of limited liability is a shortcut to this position, avoiding the costs of separate transactions.²⁰

One advantage of purchasing insurance from separate insurers is that some of the free-rider problems that face groups of creditors are avoided. Third-party insurers might have superior ability to monitor. Firms obtain insurance from the cheapest insurer regardless of the legal rule. Corporations commonly purchase insurance despite the existence of limited liability.²¹ But if third-party insurers frequently had a comparative advantage in bearing risk, we would expect to see corporate "debt insurance" commonly used. The debt investors would pay the firm to secure such insurance, receiving lower risk in return. We do not see such transactions.

In light of the ability of firms to duplicate or at least approximate either limited or unlimited liability by contract, does the legal rule of limited liability matter? The answer is yes, but probably not much.²² Under the plausible assumption that creditors often are the most efficient risk bearers, a rule of limited liability economizes on transaction costs by eliminating the need for individual negotiations with every creditor. By contrast, limited liability will not cause a corresponding increase in the number of transactions with third-party insurers. Such transactions will occur whenever third parties are the cheapest insurers, no matter what the legal rule.

Limited liability also makes a difference if the firm would purchase inadequate insurance or insurance would not be available in a competitive market. It is hard to imagine, for example, a market for insurance against all bankruptcy. Bankruptcies may be

²⁰ Sometimes it would be too costly to strike such separate deals. Involuntary creditors who are victims of torts can hardly negotiate with the firm in advance. Even here, however, the benefits of limited liability could be retained if firms insured against expected liabilities from tort claims. (We discuss in Part III whether tort creditors should stand in a different position from voluntary creditors.)

²¹ See Mayers & Smith, *On the Corporate Demand for Insurance*, 55 J. Bus. 281 (1982) (discussing a variety of incentives for corporations to purchase insurance).

²² This conclusion depends on the existence of well-developed insurance markets. We do not doubt that limited liability played a crucial role in the growth of the publicly held corporation in the nineteenth century when insurance markets were much less well developed.

caused by economy-wide events against which the insurer cannot diversify. Moreover, complete bankruptcy insurance creates a moral hazard: it invites managers to take excessive risks. Both equity and debt investors would stop monitoring the managers, and insurers are not likely to provide optimal monitoring in the face of this moral hazard.

Without complete bankruptcy insurance, some group must bear the risk of business failure. If shareholders bear all the risk, the problems of unlimited liability reappear; if creditors share some of this risk, the situation is identical to the rule of limited liability.

The bankruptcy example illustrates a more general problem with insurance as an alternative to limited liability—who will insure the insurer? If insurers assume the risk of business failure, unpaid claims of the insured firms could exceed the capital of the insurer. This risk must be borne by someone. Shareholders of insurance companies might have unlimited liability, but this could inhibit the formation of large insurers, thus exacerbating the problem. Alternatively, both shareholders and creditors of the insured firm could bear the risk, and the same analysis would govern whether limited or unlimited liability is the superior institutional arrangement.

In sum, the problem all along has been: is it better to allow losses to lie where they fall, or to try to shift those losses to some other risk bearer? This is an empirical question. The market's answer is partial risk shifting. The equity investors bear more risk than the debt investors, but debt investors continue to bear substantial risk, and the risk of all investors is limited to the amount they sink at the start. This arrangement appears to have substantial survival value, for reasons we have discussed. If greater risk shifting were beneficial, we should have seen it evolve in the market. It is no answer to say that transaction costs are high, so the evidence from survival is ambiguous. It is easy to make contracts governing stockholders' liability. Lenders to close corporations commonly require personal guarantees by investors or other modifications of limited liability. We discuss in Part IV why they do so. For now the point is that if people frequently contract around limited liability for the smallest firms, it is impossible to attribute the failure to do likewise for larger firms to transaction costs. The survival of limited liability is indeed highly informative.

III. LIMITED LIABILITY AND THE EXTERNALIZATION OF RISK

Because limited liability increases the probability that there

will be insufficient assets to pay creditors' claims, shareholders of a firm reap all of the benefits of risky activities but do not bear all of the costs. These are borne in part by creditors. Critics of limited liability have focused on this moral hazard—the incentive created by limited liability to transfer the cost of risky activities to creditors—as a justification for substantial modification of the doctrine.²³

Externalization of risk imposes social costs and thus is undesirable. The implications of this point, however, are unclear, both because modifying limited liability has its costs and because moral hazard would exist without limited liability. The social loss from reducing investment in certain types of projects—a consequence of seriously modifying limited liability—might far exceed the gains from reducing moral hazard. Too, even the abolition of limited liability would not eliminate the moral-hazard problem. The incentive to engage in overly risky activities is a general phenomenon that exists whenever a person or firm has insufficient assets to cover its expected liabilities.²⁴ Although the problem of moral hazard may be more severe under limited liability, it will exist under any rule. As we have stressed, the magnitude of these gains and losses is an empirical matter on which the dominance of limited liability—when it is simple to pass greater risks to equity investors by contract—speaks eloquently.

At all events, the magnitude of the externality under limited liability has been exaggerated. As Richard Posner has demonstrated, there is no externality with respect to voluntary creditors.²⁵ In addition, firms have incentives to insure for amounts greater than their existing capital. The insurance company becomes a contract creditor, reducing the externality. We discuss these points below.

A. Limited Liability and Voluntary Creditors

Employees, consumers, trade creditors, and lenders are voluntary creditors. The compensation they demand will be a function of the risk they face. One risk is the possibility of nonpayment be-

²³ See, e.g., Landers, *A Unified Approach to Parent, Subsidiary, and Affiliate Questions in Bankruptcy*, 42 U. CHI. L. REV. 589 (1975); Stone, *The Place of Enterprise Liability in the Control of Corporate Conduct*, 90 YALE L.J. 1, 65-76 (1980).

²⁴ See Keeton & Kwerel, *Externalities in Automobile Insurance and the Uninsured Driver Problem*, 27 J.L. & ECON. 149 (1984); Shavell, *Liability for Harm versus Regulation of Safety*, 13 J. LEGAL STUD. 357 (1984); Steven Shavell, *The Judgment Proof Problem* (1984) (unpublished manuscript on file with *The University of Chicago Law Review*).

²⁵ Posner, *supra* note 3, at 503.

cause of limited liability. Another is the prospect, common to all debtor-creditor relations, that after the terms of the transaction are set the debtor will take increased risk, to the detriment of the lender.

So long as these risks are known, the firm pays for the freedom to engage in risky activities. Any creditor can get the risk-free rate by investing in T-bills or some low-risk substitute. The firm must offer a better risk-return combination to attract investment. If it cannot make credible promises to refrain from taking excessive risks, it must pay higher interest rates (or, when the creditors are employees and trade creditors, higher prices for the work or goods delivered on credit). There is no "externality." Voluntary creditors receive compensation in advance for the risk that the firm will be unable to meet its obligations.

Equity investors and managers have incentives to make arrangements that reduce risk and thus reduce the premium they must pay to debt claimants. Bond indentures, which commonly contain detailed provisions limiting the ability of the firm to engage in conduct to the detriment of creditors, are one method of reducing this premium.²⁶ If the compensation that must be paid to third parties for engaging in a particular activity exceeds the benefits to the firm, the activity will not be undertaken under a rule of either limited or unlimited liability.²⁷ This is a simple application of the Coase Theorem. The optimal amount of risk is not zero, though. Managers will take steps to reduce risk only so long as the gains from risk reduction exceed the costs.

The incentive to take optimal precautions against increases in risk does not depend on all voluntary creditors having perfect information. In certain cases, the actions of informed actors will result in the appropriate risk premium being charged. For example, risks created by a firm's activities may be understood by an indenture trustee or a union even if not by individual bondholders or workers. If the risk premium is correctly set, it is irrelevant whether each voluntary creditor is informed. Each is protected by the market price.²⁸ And so long as the firm must pay the correct

²⁶ See Smith & Warner, *On Financial Contracting: An Analysis of Bond Covenants*, 7 J. FIN. ECON. 117 (1979). Legal rules also reduce the premium that is paid to debt claimants. The legal capital rules, for example, limit the ability of equity holders to withdraw capital from the firm and thereby decrease the pool of assets that creditors can reach. These rules are beneficial because they decrease the cost of writing contracts.

²⁷ A. MITCHELL POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 95-102 (1983).

²⁸ For various applications of this point, see Easterbrook & Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 693-94 (1984) (discussing securities

risk premium, it has no incentive to engage in excessively risky conduct.

Sometimes, though, no voluntary creditor will have sufficient information or incentive to assess risk correctly or monitor the actions of the debtor. This might lead voluntary creditors to charge a risk premium that is prohibitively high, because they will equate their inability to monitor with a belief that firms will take much too much risk. It is in precisely these situations, however, that firms have incentives to insure. By contracting with a superior monitor (a more efficient insurer), the firm reduces the risk premium it must pay.²⁹ The insurer, in turn, may use its superior monitoring ability to induce the firm to internalize the costs of its risky activities.

Our point is not that limited liability will never result in a socially excessive amount of risk taking in situations involving voluntary creditors. Rather, we argue that it is unlikely that any rule will lead to systematically excessive risk taking; indeed, it is unlikely that the legal rule will matter much.

Limited liability's greatest effect is on the probability that any given creditor will be fully paid *ex post*. Even if firms pay for engaging in risky activities, and thus take the correct precautions, creditors of failed businesses are less likely to receive full compensation under a rule of limited liability. This is not an "argument" against limited liability, however, unless distributional concerns dominate. There is little role for distributional arguments when all of the parties are in privity, for they can strike their own bargains and are apt to contract around any unwelcome rule purportedly designed for their benefit.³⁰ They can readjust the risk. More to the point, they can simply choose to hold, under any rule, a different proportion of debt and equity, which rearranges the risk. Tax and welfare policies are likely to be better ways to redistribute wealth than the modification of terms of private contracts. Moreover, the existence of first-party insurance makes distributional concerns much less serious than they might at first appear. The ability of potential victims to protect themselves against loss

markets); Fischel, *supra* note 11 (same); Schwartz & Wilde, *Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis*, 127 U. PA. L. REV. 630 (1979) (discussing markets for consumer goods).

²⁹ See Mayers & Smith, *supra* note 21, at 286.

³⁰ See, e.g., Baird & Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests: A Comment on Adequate Protection of Secured Interests in Bankruptcy*, 51 U. CHI. L. REV. 97 (1984); Epstein, *The Social Consequences of Common Law Rules*, 95 HARV. L. REV. 1717 (1982).

through insurance is a strong reason for disregarding distributional concerns in choosing among liability rules.

B. Involuntary Creditors and Corporations' Incentives to Insure

When corporations must pay for the right to engage in risky activities, they will tend to undertake projects only where social benefits equal social costs at the margin. Where high transactions costs prohibit those affected by risky activities from charging an appropriate risk premium, however, the probability that firms with limited liability will undertake projects with an inefficiently high level of risk increases. Firms capture the benefits from such activities while bearing only some of the costs; other costs are shifted to involuntary creditors. This is a real cost of limited liability, but its magnitude is reduced by corporations' incentives to insure.

The common explanation for insurance is risk aversion. A risk-averse person may be willing to pay a known insurance premium to eliminate the possibility of a large, uncertain loss, even though the premium exceeds the expected value of the loss. By pooling unrelated risks, the insurer can diversify. A completely diversified insurer is risk neutral. Insurance enables those who are risk averse to pay risk-neutral parties to bear risk.

Corporate purchase of insurance seems inconsistent with this explanation. Investors can diversify, and this is a cheap way to reduce risk. Limited liability facilitates this diversification. Thus investors should not be willing to pay insurers to reduce risk. Why buy something you already have for free?

But not all who enter into contracts with a firm have the same ability to minimize risk by diversification. Human capital, for example, is notoriously difficult to diversify. Managers who have firm-specific investments of human capital cannot diversify the risk of business failure. To the contrary, investors want managers' fortunes tied to the fate of the firms under their control, and so they induce managers to bear extra costs if these firms fail, and they offer disproportionate rewards for success.³¹ The possibility of bankruptcy also represents a real cost to those with firm-specific investments of human capital, and firms must compensate those who bear this risk. The purchase of insurance in amounts greater than the amount of the firm's capital is one method of reducing

³¹ See Carlton & Fischel, *The Regulation of Insider Trading*, 35 *STAN. L. REV.* 857, 869-72 (1983); Easterbrook, *supra* note 7.

the amount that the firm must pay.³² A firm with insurance against tort claims is less likely to become bankrupt, and thus less likely to impose costs on managers and other employees. Insurance thus induces people to make firm-specific investments of human capital.³³

Whether the purchase of insurance in amounts greater than the size of the firm's capital will reduce the incentive to engage in overly risky activities is a complex question.³⁴ Before purchasing insurance, the firm's investors have the full amount of their investment at risk. After the purchase, the investors have much less at risk—in the limit, nothing at risk. The insurance company now bears the risk of business failure caused by tortious conduct. Thus the purchase of insurance might be thought to reduce the managers' incentives to take care, incentives already too low because of the existence of limited liability. The purchase of insurance has the effect, however, of creating a contract creditor where none may have existed before. The insured corporation must pay (through higher premiums) for engaging in risky activities. Because the firm will now bear the costs of engaging in risky projects, it will tend to equate social benefits and costs when making investment decisions.

Our argument is not that firms' incentive to purchase insurance eliminates the possibility that firms will engage in excessively risky activities. There may well be situations where firms will decide not to insure even if insurance is available. If potential losses are extremely large, the premium paid to risk-averse managers with firm-specific investments of human capital to compensate them for bearing the risk of bankruptcy might be less than the premium that would have to be paid to the insurance company. In other words, the limited liability of the manager (particularly in a world where discharge in bankruptcy is available) coupled with the limited liability of the firm may cause firms faced with large expected liabilities to involuntary creditors to pay managers a premium and simultaneously decrease their capitalization. Moreover, there is no guarantee that insurance will be offered if risks are

³² This conclusion would be qualified in a world of perfect information. Corporate bankruptcy is not equivalent to the liquidation of all assets. The bankrupt firm could be reorganized, and the manager with a firm-specific investment rehired. In a world of uncertainty, however, the manager could not be confident that he would be rehired and would thus demand a premium. Even a rehired manager would suffer a loss of reputational capital because of the possibility that his shortcomings caused the failure.

³³ Alan Schwartz has argued that corporate insurance also enables investors in risky industries to ensure that firms will be in existence long enough to enable them to earn a positive return on investment. See Schwartz, *Products Liability, Corporate Structure and Bankruptcy: Toxic Substances and the Remote Risk Relationship*, YALE L.J. (forthcoming).

³⁴ See Steven Shavell, *supra* note 24.

highly correlated. Even when offered, the insurance will exclude very large losses. On the other hand, our discussion of firms' incentives to insure suggests that firms will insure in some situations where people and partnerships would not. A corporation with a fleet of trucks might insure for an amount in excess of its capital, for example, while an individual owner with few assets might insure for a small amount or not insure at all.³⁵

IV. PIERCING THE CORPORATE VEIL

Courts have allowed creditors in some situations to reach the assets of shareholders. The justification for this is obscure. State law typically says that limited liability is absolute.³⁶ Moreover, the nominal tests used by courts—whether a corporation has a “separate mind of its own,” whether it is a “mere instrumentality,” and so forth—are singularly unhelpful. The arbitrariness of these nominal tests casts further doubt on the utility of the doctrine.

We conclude, however, that the doctrine of piercing the corporate veil, and the distinctions drawn by courts, may make more sense than at first appears. The cases may be understood, at least roughly, as attempts to balance the benefits of limited liability against its costs. Courts are more likely to allow creditors to reach the assets of shareholders where limited liability provides minimal gains from improved liquidity and diversification, while creating a high probability that a firm will engage in a socially excessive level of risk taking. We discuss below the more important aspects of the doctrine.

A. Close Versus Public Corporations

Almost every case in which a court has allowed creditors to reach the assets of shareholders has involved a close corporation.³⁷ The distinction between close and public corporations is supported

³⁵ See Keeton & Kwerel, *supra* note 24, at 154-56.

³⁶ See, e.g., DEL. CODE ANN. tit. 8, § 152 (1983) (stock is “fully paid and nonassessable” once paid for in cash); *id.* § 162 (investor's liability on partially paid-for shares is limited to the balance of the agreed-upon consideration); see also MODEL BUSINESS CORP. ACT § 6.22 (1984) (a stockholder “is not liable to the corporation or its creditors with respect to the shares except to pay the consideration for which such shares were authorized to be issued (section 6.21) or specified in the subscription agreement (section 6.20)”).

³⁷ We say “almost every” only because we have not examined them all. The most famous cases where piercing was an issue all involve close corporations. See, e.g., *Minton v. Cavaney*, 56 Cal. 2d 576, 364 P.2d 473, 15 Cal. Rptr. 641 (1961); *Walkovszky v. Carlton*, 18 N.Y.2d 414, 223 N.E.2d 6, 276 N.Y.S.2d 585 (1966); *Bartle v. Home Owners Cooperative, Inc.*, 309 N.Y. 103, 127 N.E.2d 832 (1955).

by economic logic. In close corporations, there is much less separation between management and risk bearing. This has profound implications for the role of limited liability. Because those who supply capital in close corporations typically are also involved in decisionmaking, limited liability does not reduce monitoring costs. Other benefits of limited liability in public corporations—facilitating efficient risk bearing and monitoring by the capital market—also are absent for close corporations. Because those who contribute capital often manage, diversification is much less important in close corporations. Similarly, close corporations restrict the transfer of their shares to ensure that those who invest will be compatible with existing decisionmakers. Takeover bids are impossible; they are not needed because of the lack of separation of the management and risk-bearing functions.

Moreover, the incentive created by limited liability for managers to undertake overly risky projects is much more severe in close corporations. Whatever the liability rule, managers of publicly held corporations do not bear all of the costs of their actions. There are many of them, and each owns but a small fraction of the firm's shares. This is not necessarily true in close corporations. Under a rule of unlimited liability, investor-managers bear all of the costs of their actions. Under a rule of absolutely limited liability, by contrast, investor-managers can limit their risk to the amount of capital in the corporate treasury and transfer more of the risk to third parties.³⁸ Piercing the veil—especially in favor of trade and tort creditors who cannot negotiate with the firm—reduces the extent to which third parties bear these costs.³⁹

B. Corporate Versus Personal Shareholders

The other major category of piercing cases involves parent-subsidary combinations, where creditors of the subsidiary attempt to reach assets of the parent.⁴⁰ Courts' greater willingness to allow

³⁸ Sometimes the appropriate response to this is a statute requiring the firm to insure. See *New Jersey v. Ventron Corp.*, 94 N.J. 473, 468 A.2d 150 (1983) (limited liability protects the shareholders from paying the cost of cleaning up toxic waste, but the investors are directly liable nonetheless under a special antipollution statute); see also *Ohio v. Kovacs*, 105 S. Ct. 705 (1985) (obligation to clean up toxic wastes may be discharged in bankruptcy); Baird & Jackson, *Kovacs and Toxic Wastes in Bankruptcy*, 36 *STAN. L. REV.* 1199 (1984).

³⁹ On the other hand, there is no reason to pierce the veil of even a "shell" corporation in favor of a creditor that can negotiate for such protection as it desires. Courts routinely enforce limited liability in such cases. See, e.g., *Brunswick Corp. v. Waxman*, 599 F.2d 34 (2d Cir. 1979).

⁴⁰ See Hackney & Bensen, *Shareholder Liability for Inadequate Capital*, 43 *U. PRRT. L.*

creditors to reach the assets of corporate as opposed to personal shareholders is again consistent with economic principles.

Allowing creditors to reach the assets of parent corporations does not create unlimited liability for any people. Thus the benefits of diversification, liquidity, and monitoring by the capital market are unaffected. Moreover, the moral-hazard problem is probably greater in parent-subsidary situations because subsidiaries have less incentive to insure. In publicly held corporations, the inability of managers to diversify their firm-specific investments in human capital creates incentives to insure. The same is not true for managers of subsidiaries if, as often will be the case, these people are also managers of the parent. Bankruptcy of the subsidiary will not cause them to lose their positions in the parent or suffer any other loss of firm-specific human capital (though it might impose a reputational loss on them). If limited liability is absolute, a parent can form a subsidiary with minimal capitalization for the purpose of engaging in risky activities. If things go well, the parent captures the benefits. If things go poorly, the subsidiary declares bankruptcy, and the parent creates another with the same managers to engage in the same activities. This asymmetry between benefits and costs, if limited liability were absolute, would create incentives to engage in a socially excessive amount of risky activities.

It does not follow that parent and affiliate corporations always should be liable for the debts of those in which they hold stock. Far from it. Such general liability would give unaffiliated firms a competitive advantage. Think of the taxicab business. Taxi firms may incorporate each cab or put just a few cabs in a firm. If courts routinely pierced this arrangement and put the assets of the full venture at risk for the accidents of each cab, then "true" single-cab firms would have lower costs of operation because they alone could cut off liability. That would create a perverse incentive because, as we have emphasized, larger firms are apt to carry more insurance. Potential victims of torts would not gain from a legal rule that promoted corporate dis-integration. As a result, courts properly disregard the corporate form only when the corporate arrangement has increased risks over what they would be if firms generally were organized as separate ventures.

Rev. 837, 873 (1982) (citing cases for the proposition that courts are more willing to disregard the entity of a subsidiary corporation than one owned by one or more individuals); see also Hamilton, *The Corporate Entity*, 49 *TEX. L. REV.* 979, 992 (1971).

C. Contracts Versus Torts, and the Fraud or Misrepresentation Exception

Courts are more willing to disregard the corporate veil in tort than in contract cases.⁴¹ The rationale for this distinction follows directly from the economics of moral hazard—where corporations must pay for the risk faced by creditors as a result of limited liability, they are less likely to engage in activities with social costs that exceed their social benefits. Contract creditors, in other words, are compensated *ex ante* for the increased risk of default *ex post*. Tort creditors, by contrast, are not compensated.

This distinction between contract and tort creditors breaks down when the debtor engages in fraud or misrepresentation.⁴² For the costs of excessive risk taking to be fully internalized, creditors must be able to assess the risk of default accurately. If the creditor is misled into believing that the risk of default is lower than it actually is, the creditor will not demand adequate compensation. This will lead to an excessive amount of risk taking by firms, because some of the costs are now shifted to creditors.

Courts have responded to this problem by allowing creditors to go beyond the assets of the corporation in cases of fraud or misrepresentation.⁴³ The problem can arise in a variety of ways. The most obvious occurs when a corporation misrepresents the nature of its activities, its ability to perform, or its financial condition. Less obvious situations crop up when a firm misleads a creditor into believing that it would have recourse to the assets of other corporations in the event of nonperformance. This could occur if managers make express statements that a parent corporation will stand behind the debts of a subsidiary or if the parent and the subsidiary have confusingly similar names, so that the creditor believes it is dealing with the parent. In all these situations, creditors are unable to assess the risk of default accurately and thus the probability that the firm will engage in excessively risky activities is increased.

⁴¹ The difference in judicial treatment of contracts and torts cases was noticed at least as early as Douglas & Shanks, *Insulation from Liability Through Subsidiary Corporations*, 39 YALE L.J. 193, 210-11 (1929). For a recent case emphasizing the distinction, see *Edwards v. Monogram Indus.*, 730 F.2d 977, 980-84 (5th Cir. 1984) (en banc).

⁴² For a fuller discussion of the misrepresentation exception, see Posner, *supra* note 3, at 520-24.

⁴³ See, e.g., *Edwards v. Monogram Indus.*, 730 F.2d 977, 980-84 (5th Cir. 1984) (en banc); see also Krendl & Krendl, *Piercing the Corporate Veil: Focusing the Inquiry*, 55 DEN. L.J. 1, 31-34 (1978) (citing cases).

D. Undercapitalization

A final factor commonly emphasized by courts in deciding whether to allow creditors to go beyond the corporation's assets is the extent of the firm's capitalization.⁴⁴ Again the reason is clear: the lower the amount of the firm's capital, the greater the incentive to engage in excessively risky activities.

The extent of a firm's capitalization is most important in situations involving involuntary creditors, where high transactions costs preclude negotiation. But undercapitalization can also be relevant in situations involving voluntary creditors. Many credit transactions are too small to warrant a full investigation of the debtor's finances by the creditor. Someone who sells the firm a chair on thirty-days' credit is not going to engage in detailed negotiations about risk and security. In these situations, it is desirable that creditors be able to assume that the debtor is adequately capitalized. The firm should have a duty to notify the creditor of any unusual capitalization. It is cheaper for the firm (which has the best information about its capital structure) to notify creditors in the unusual case than for creditors to investigate in all cases. (By "adequately" capitalized we mean an amount of equity that is within the ordinary range for the business in question. Both the absolute level of equity investment and the debt-equity ratio will depend on the kind of business on which the firm is embarked.)

Allowing creditors to look beyond the assets of the undercapitalized corporate debtor provides the debtor with the incentive to disclose its situation at the time of the transaction.⁴⁵ The creditor then can decide not to transact or charge increased compensation for the increased risk. Alternatively, the creditor could ask for prepayment, personal guarantees, or other security. Under any of these alternatives, the debtor will have to pay for engaging in risky activities and thus will have better incentives to balance social benefits and costs.⁴⁶

⁴⁴ Douglas & Shanks, *supra* note 41, at 218, for example, state that "the adequacy or inadequacy of the capital and financial arrangements of the subsidiary weigh heavily in the determination of liability or non-liability of the parent, greatly overshadowing the other so-called indicia of identity between the companies such as common officers, directors, office and lack of separate books."

⁴⁵ There is an analogy in contract law. The foreseeability doctrine of *Hadley v. Baxendale*, 9 Ex. 341, 156 Eng. Rep. 145 (1854), denies recovery for nonforeseeable losses, which gives plaintiffs an incentive to disclose any unusual conditions and risks at the time of the transaction. Disclosure, in turn, allows the other party to take extra precautions or to charge appropriate compensation for bearing increased risk.

⁴⁶ Though our discussion is addressed to "piercing," the same considerations apply to

V. ALTERNATIVE METHODS FOR REDUCING THE PROBLEM OF MORAL HAZARD

Piercing the corporate veil is one of several methods for decreasing the incentive created by limited liability to engage in overly risky activities. We briefly analyze in this section the costs and benefits of four other methods of decreasing this risk: minimum-capital requirements, mandatory insurance, managerial liability, and regulation of inputs. Our discussion is general and descriptive. A normative analysis would require data, not currently available, on the size of the externality created by limited liability and the net effects of regulatory attempts to reduce it.

The lower a firm's capitalization, the higher the probability that it will engage in excessively risky activities. Legislatively imposed minimum-capitalization requirements are one method of internalizing the costs of risk taking. But such regulations have problems of their own. One is the obvious administrative cost associated with determining what amount of capital firms should raise.⁴⁷ Another is the cost of error. If capital requirements are set too high, this will impede new entry and permit the existing firms to charge monopoly prices. Still another is the question of how firms must satisfy their capitalization requirements. For such requirements to be effective, the corporation must post a bond equal to its highest expected liability⁴⁸ or hold sufficient funds in the corporate treasury and invest them in risk-free assets. The total held in this way will far exceed the expected risk created by firms as a group (because not all firms go bankrupt or incur the maximum possible loss). Under either alternative, the rate of return on equity investments will decrease. Thus at the margin people will shift

equitable subordination, a doctrine under which insiders' debt paper may be subordinated to the debt claims of trade creditors and others who did not have actual knowledge of the nature of the insiders' claims. A thinly capitalized firm exposes trade creditors to unsuspected risks, and the doctrine of equitable subordination induces the insiders to make unusual patterns of equity and debt claims known. See *Costello v. Fazio*, 256 F.2d 903 (9th Cir. 1958); Clark, *The Duties of the Corporate Debtor to Its Creditors*, 90 HARV. L. REV. 505 (1977). Subordination should be handled as an implied term in the debt contract, not as a special rule of bankruptcy. See Jackson, *Translating Assets and Liabilities to the Bankruptcy Forum*, 14 J. LEGAL STUD. 73, 86-87 (1985); cf. *Taylor v. Standard Gas & Elec. Co.*, 306 U.S. 307 (1939) (holding that bankruptcy statute compelled subordination of parent company's claims against subsidiary, but suggesting that such a result would also follow from broader equitable principles).

⁴⁷ This problem also arises in piercing cases when undercapitalization is involved. The problem is less severe in piercing cases, however, because administrative costs are incurred only when there is a bankruptcy, not in every case.

⁴⁸ As Posner proposes. Posner, *supra* note 3, at 520.

capital away from equity investment in risky industries. This too represents a social cost.

Mandatory-insurance requirements are similar in some respects to minimum-capitalization requirements. Both involve administrative costs and may act as barriers to entry. Whether mandatory insurance poses a greater barrier to entry is difficult to determine. New firms, with less experience than existing ones, have higher risks, as insurers see things, and must therefore pay higher premiums. If these premiums are less than the cost of self-insurance, then mandatory insurance facilitates new entry (compared with minimum-capitalization rules). On the other hand, some firms, particularly new firms, might find it difficult to obtain insurance at all. The effect of mandatory insurance on new firms, therefore, might be greater than minimum-capitalization requirements.

One important difference between the two regimes is the effect each has on firms' incentives to engage in excessively risky activities. Minimum-capitalization requirements decrease this incentive. Mandatory insurance requirements, by contrast, may increase or decrease the level of risky activities, depending on insurers' ability to monitor. Where the insurer is unable to monitor, the level of risky activities will increase because of the existence of the insurance. This is a problem, for example, in the market for automobile insurance. State laws frequently require insurance companies to issue insurance to poor drivers (the assigned risk pool) and forbid the setting of rates that would price these drivers out of the market. Mandatory insurance of other activities may have the same sorts of problems.

One method of minimizing the incentive to engage in overly risky activities while avoiding the administrative costs of minimum-capitalization requirements or mandatory insurance is to impose liability on managers as well as enterprises. Managerial liability is an additional risk for which firms must compensate the managers. From the firm's perspective, however, there are problems with paying managers for bearing risk. Because of their inability to diversify their human capital, managers are inefficient risk bearers. Thus firms have incentives to undo managerial liability by providing managers with indemnification or insurance.⁴⁹

This risk shifting does not, however, defeat the purpose of managerial liability. If only the firm may be held liable, the value-maximizing strategy for a firm with few firm-specific investments

⁴⁹ For a fuller discussion of risk shifting, see Kraakman, *Corporate Liability Strategies and the Costs of Legal Controls*, 93 *YALE L.J.* 857 (1984).

of human capital may well be to maintain assets less than expected liabilities. If managers may also be held liable, they have incentives to monitor the firm's capitalization and insurance, because they bear the costs if risk shifting is not complete. Thus the value-maximizing strategy under managerial liability is for firms to self-insure by increasing their capitalization or purchase insurance, whichever is cheaper.⁵⁰ In either case, the incentive to engage in overly risky activities is reduced.

The problem with managerial liability is that risk shifting may not work perfectly. It is unlikely, for example, that managers who are liable for mass torts, with huge but uncertain expected liabilities, could shift all of this risk. Because of the huge amounts involved and the difficulty of monitoring, insurers are unwilling to assume the highest possible expected liability. To the extent that risk is not completely shifted, a legal rule of managerial liability creates risk for a group with a comparative disadvantage in bearing that risk. This inefficiency leads to both an increase in the competitive wage for managers and a shift away from risky activities. And there is no guarantee that the social costs of this shift away from risky activities will not exceed the social costs of the excessively risky activities in the absence of managerial liability.

A final method of reducing the incentive to engage in overly risky activities created by limited liability is the regulation of inputs. The regulation of nuclear power plants, for example, could be justified as a response to the perverse incentives created by limited liability. Again, however, there are costs associated with direct regulation of risk taking. Regulators have no better incentives than market participants to balance the social costs and benefits of engaging in certain activities. Indeed the economic theory of regulation suggests that many regulatory schemes arise in order to create, rather than eliminate, "defects" in markets.⁵¹ Thus the regulation of nuclear power plants may have the purpose and effect of shielding other types of energy producers from competition rather than eliminating perverse incentives created by limited liability. Whether the social costs of regulation exceed the social costs of excessively risky activities is an empirical question. The desirability of regulation cannot be established simply by identifying the potential incentive to engage in overly risky activities created by

⁵⁰ Provided, as we discussed above, that the costs of insurance are less than the premium that would otherwise have to be paid to managers.

⁵¹ See GEORGE STIGLER, *THE CITIZEN AND THE STATE* 105-88 (1975); Becker, *A Theory of Competition Among Pressure Groups for Political Influence*, 98 Q.J. ECON. 371 (1983).

limited liability.

CONCLUSION

Limited liability facilitates the efficient specialization of function in publicly held corporations. It also allows corporations in some circumstances to externalize the costs of engaging in risky activities. To reduce this social cost of limited liability, courts have pierced the corporate veil in situations where the incentive to engage in excessively risky activities is the greatest. Other legal rules, such as managerial liability, minimum-capitalization requirements, and mandatory insurance, can also be understood as attempts to reduce the social costs of limited liability.