BONDING LIMITED LIABILITY

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ABSTRACT

Limited liability is considered a “birthright” of corporations. The concept is entrenched in legal theory, and it is a fixed reality of the political economy. But it remains controversial. Scholarly debate has been engaged in absolute terms of defending the rule or advocating its abrogation. Though compelling, these polar positions, often expressed in abstract arguments, are associated with disquieting effects. Without limited liability, efficiency may be severely compromised. With it, involuntary tort creditors bear some of the cost of an enterprise. Most other proposals for reforming limited liability have been incremental, such as modifying veil-piercing. However, neither absolutism nor marginalism is inevitable. Reform can be sweeping and yet maintain fidelity to the core idea of limited liability. The essential problem is one of financing. This Article stakes a middle ground in the debate: liability should be limited against all creditors, but cost externalization to tort creditors can be substantially minimized, if not eliminated, through mandatory bonding that in the aggregate capitalizes a compensation fund. A bond would be minimally burdensome on individual firms, but business enterprise is made to bear risk more fully. Importantly, bonded limited liability is practically administrable and politically feasible. The idea is based on well developed intellectual foundations of enterprise liability and risk retention. This scheme does not substantially

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undermine the efficiency of limited liability since the rule is preserved, but it promotes equity and justice.
# Table of Contents

INTRODUCTION ...................................... 1420

I. THE DEBATE ON LIMITED LIABILITY ................. 1423
   A. Justification of Limited Liability ............... 1423
   B. Critique of Limited Liability .................... 1429
      1. Ordinariness of Personal Liability .......... 1430
      2. Cost Externalization .......................... 1433
      3. Administrative Feasibility of Personal Liability .. 1435
   C. Assessment of the Debate ........................ 1437
   D. Purpose and Regulation of the Rule .............. 1440

II. THE MIDDLE GROUND ............................. 1446
   A. Efficiency and Equity ............................ 1446
   B. Bonded Limited Liability ....................... 1450
   C. Enterprise Liability and Risk Retention ........ 1456
   D. Potential Objections and Responses ............. 1463
      1. Corporate Finance ............................. 1463
      2. Efficiency of Capital ........................... 1466
      3. Actuarial Risk ................................ 1467
   E. Efficiency Assessed .............................. 1469

III. ADMINISTRATION AND FEASIBILITY ................. 1469
   A. Sustainability of Fund ........................... 1469
   B. Mechanics of Administration ..................... 1471
      1. Bond Amount and Collection .................... 1472
      2. Allocation Considerations ....................... 1474
      3. Claimant Eligibility and Priority ............ 1475
      4. Limitation Periods ............................ 1476
      5. Disbursement, Forfeiture, and Redemption ...... 1478
   C. Political Challenges and Feasibility .......... 1478

CONCLUSION ....................................... 1486
Limited liability is the essential attribute of the corporate form. Once the entitlement of corporations, limited liability is rapidly becoming a standard benefit of business enterprise as evinced by the increasing prominence of limited liability companies as a preferred organizational form of many private enterprises. Most corporate law scholars have not only accepted limited liability as a standard term in the law of business organizations, but have forcefully justified it. They have argued that limited liability should be countenanced because an alternative scheme of unlimited liability would impose greater costs on economic production, including an increase in agency and capital costs. But some scholars have argued with equal force that these costs are overrated and that the balance of the cost-benefit analysis favors greater personal liability for tort claims. The question of limited liability is still debatable because the merits of the theoretical arguments cannot be empirically confirmed. Without such proof, the academic debate has largely been engaged in abstract, absolute terms of defending the rule or arguing for its abolition with each side advancing compelling arguments. The debate on limited liability must be properly...
f Jumped, lest it be only academic. It must focus on pragmatic proposals so that policymakers can consider them. Pragmatism requires the acknowledgement of an important baseline: at this point in time and society, it is hard to imagine the abrogation of limited liability as a political possibility. The belief in the efficiency of limited liability, however unverifiable, is generally accepted. Indeed, there seems to be an efficiency axiom of limited liability.

Although limited liability is a practical reality, the concept is still troubling. No one disputes that corporations should ideally internalize the cost of their activities. With perfect information, no reasonable society would grant the right of limited liability if a particular firm would produce merely a transfer payment with a private gain to the shareholder and an equal private loss to the tort victim, or worse, the firm’s activity would impose a net social cost. Such a society would be morally or economically bankrupt. Limited liability marches in tandem with the driving force of enterprise—the expectation of profit after satisfaction of all liabilities. A good faith belief that one will not invoke the rule is implied. Society confers limited liability to mitigate the well-known, generally accepted understanding of the costs associated with imposing unlimited personal liability. The implied social bargain is clear. If limited liability presents a social problem, there must be a practical, politically feasible response. The goal should be to explore a middle ground in this debate.

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9. Previous efforts to explore a middle ground have revolved around proposals to expand liability through enlargement of the veil-piercing doctrine. See, e.g., Rebecca J. Huss, *Revamping Veil Piercing for All Limited Liability Entities: Forcing the Common Law Doctrine into the Statutory Age*, 70 U. CIN. L. REV. 95, 135 (2001) (“The adoption of a statutory provision to codify veil piercing and the increased use of existing statutory language ..., along with other statutory reforms, can address the underlying policy concerns relating to limited liability.”); Leebron, *supra* note 4, at 1604 & n.119, 1612-14, 1634-36; Millon, *supra* note 7, at 1360.
The debate on limited liability has been framed as whether shareholders should be personally liable in excess of their prior fixed equity investment. This presumes that the only private alternative is to revoke the rule. This is the wrong way of looking at the problem. The question should be framed as whether the activity of investing in stock, the assumption of residual income and risk, can be made to internalize a greater portion of the cost of corporate activity within the constraint of the rule. Is there a way to capture the undeniable benefits of limited liability, while curtailing its negative effects? The problem is essentially one of financing.

A middle ground is feasible. This Article advances a simple idea: a firm should internalize more cost and risk of its tortious activities through a mandatory bonding of limited liability. The bond serves as an additional asset reserved to satisfy liability and is redeemable by the obligor firm only upon dissolution without excess liability. Under this scheme, the liability calculus changes only slightly: the scope of liability is expanded from a claim on corporate assets to a claim on corporate assets plus bond. Since the bond amount should be set relatively low to avoid deterring the engagement of enterprise, the principal itself does not materially relieve the burden on tort creditors. Rather, the aggregate bond capitalizes a compensation fund. With mandatory participation, the earned surplus can substantially, if not fully, compensate tort victims. Similar to insurance, limited liability is a backstop against unexpected business failure, and just as most policyholders are fortunate to not claim on the insurance, most firms are either profitable or dissolve before excess liability accrues and they do not invoke the rule of limited liability. For them, the bond is essentially a mandated return-free capital, and the true cost of bonding limited liability for most firms is the opportunity cost of capital on the principal.

The idea of bonded limited liability is supported by sound theoretical principles from tort law and insurance. First, the principle of enterprise liability justifies a scheme to spread the losses caused by business activities. Business enterprise is better able to bear the risk so long as liability is certain and predictable, and each participant in the enterprise should be made to share a small portion of that risk. The idea of enterprise liability need not be confined to tort doctrine, or defined by industry or product differentiations. Second,
bonded limited liability is essentially a mandated risk retention arrangement. If adverse selection and information collection problems are eliminated through mandatory participation, self-insurance is a feasible policy response. In insurance, most policyholders do not claim the benefit of insurance, and thus they subsidize the cost of the unfortunate few. A mandatory bond creates a risk retention arrangement akin to group self-insurance against liability in excess of corporate assets (hereinafter excess liability).

This Article is presented in three parts. Part I presents and critiques the arguments for and against limited liability. Part II advances the idea of bonded limited liability, the theoretical foundation underlying the scheme, potential objections to the idea, and responses to those objections. Part III shows how a compensation fund is administrable. With the benefit of data received from the corporation commissions of Delaware, California, and New York, Part III provides pro forma calculations of the potential size of the compensation funds and annual surpluses. These calculations are also relevant to the political feasibility of bonded limited liability.

I. THE DEBATE ON LIMITED LIABILITY

A. Justification of Limited Liability

The rule of limited liability is generally understood to concern the scope of shareholder liability. This Article does not examine the liability of creditors, employees, and managers beyond their culpability under current tort and agency laws. Some scholars have asked why we focus on shareholders for personal liability. If shareholders can be found personally liable as a general rule, the principle could be extended to contract creditors or employees. The

10. See infra note 131 & tbl.1.
12. See BAINBRIDGE, supra note 3, at 143 (“Given that conception of the firm, why should not other corporate constituents—such as creditors, employees, or managers—be liable for the corporation’s torts as well?”); G. Mitu Gulati et al., Connected Contracts, 47 UCLA L. REV. 887, 930 (2000) (“It is interesting and surprising that no one seems to have considered the
inference is that imposing unlimited liability on shareholders vis-à-vis other contractual claimants would be arbitrary and unprincipled. This argument is facile, but unpersuasive. It tugs at our intuition that imposing vicarious liability on contract creditors or employees for excess liabilities would be unacceptable. The reason for holding shareholders liable is simple: they have purchased the right to the residual return. Residual return means that shareholders can earn unlimited returns if the enterprise is successful. Since there is no free lunch, shareholders bear residual risk, which in theory can be unlimited as well. There is symmetry to this bargain for risk and return. Contract creditors and employees have prior claims, and thus they agree to a lower, fixed return on the corporation’s cash flow and assets in consideration for the assumption of lower risks. If the shareholder’s residual risk incorporates the full cost of a corporation’s activity, it will be priced into the cost of equity, and the value of the corporation will reflect the probabilistic expectation of this cost. Thus, as between contract creditors, shareholders, and tort victims, the cost of legal wrongs—which must be borne by someone—should be assigned to the contractual bearer of the residual risk.

Under a regime of limited liability, however, shareholders get a subsidy and this residual risk is limited by corporate law. The immediate effect of this rule is a reduction in the cost of equity, which causes share price to increase. By designating the superiority of the shareholder’s right to be free from excess liability over the
tort victim’s right to full compensation, the law assigns the cost of a legal wrong to the latter after corporate assets are expended. Inherent in the rule of limited liability is a put option. The law forces creditors to issue to shareholders a put option on share value with the strike price set at zero, meaning that if the share value becomes negative reflecting the firm’s negative worth, the shareholder may put the shares to the creditors at zero. For contract creditors, they receive a premium for this option, which is implied in the cost of debt.\textsuperscript{17} Tort creditors, however, are forced to issue this put option \textit{gratis}.\textsuperscript{18} If excess liability were assigned to a constituent of the corporate contract, the most logical bearer of this residual risk would be the shareholder. With that said, this Article does not propose the abrogation of limited liability because the concept is grounded in legitimate and perhaps compelling economic considerations.

Although scholars have criticized the application of limited liability to contract creditors,\textsuperscript{19} this problem is less significant than the cost imposed on tort creditors.\textsuperscript{20} Contract creditors negotiate and engage in transactions with the knowledge that corporate obligation may not be satisfied. They can bargain for covenants and monitoring rights. Limited liability provides an efficient default term of the credit contract.\textsuperscript{21} If the term is unsatisfactory, parties can contract around limited liability such that shareholders are held as personal guarantors. In practice, contractual abrogation of limited liability occurs frequently. Absent private reordering, credit risk is presumed to be incorporated into the price of the credit.\textsuperscript{22} As applied to voluntary creditors, limited liability is not a serious problem because “there is no externality with respect to voluntary creditors.”\textsuperscript{23}

\textsuperscript{17} “The \textit{voluntary} creditor, however, is compensated for the risk of default by the higher interest rate that the corporation must pay lenders by virtue of its limited liability.” Richard A. Posner, Economic Analysis of Law 425 (7th ed. 2007).
\textsuperscript{18} Millon, supra note 7, at 1324 (“[T]here is no possibility that tort creditors have received compensation for bearing the risk of limited liability.”).
\textsuperscript{19} Id. at 1318-24.
\textsuperscript{20} Indeed, the majority of successful veil-piercing cases provide a remedy to contract creditors. See infra note 185.
\textsuperscript{22} Halpern et al., supra note 4, at 127-29.
\textsuperscript{23} Easterbrook & Fischel, supra note 1, at 50; see Thompson, supra note 11, at 12
Tort law is a wrench in the smooth machinery of the contrac-
tarian explanation. Tort creditors do not assent to limited liability
through voluntary transactions24 and are not factors of production
in the corporate nexus of contracts.25 Their suffering is the aggre-
gate effect of wealth producing activity.26 In a world of zero transac-
tion cost, parties can bargain for the allocation of the cost of an
activity.27 The problem is that in most cases ex ante contracting
between the victim and tortfeasor is prohibitively high.28 The law
must assign the cost of torts to someone. Recognizing that most
relationships in torts are not contractual, implied or explicit,29
Easterbrook and Fischel distinguished between the corporation and
its shareholders:

Limited liability may be anticontractual only if it is inaccurately
described. Corporations do not have “limited liability”; they must
pay all of their debts, just as anyone else must (unless, in either

24. Janet Cooper Alexander, Unlimited Personal Liability Through a Procedural Lens, 106
25. The “nexus of contracts” theory has many supporters in the legal academy. See, e.g.,
Stephen M. Bainbridge, In Defense of the Shareholder Wealth Maximization Norm: A Reply
to Professor Green, 50 Wash. & Lee L. Rev. 1423, 1427 (1993); Macey, supra note 14, at 175.
This idea originates from economic theory. See Macey, supra note 14, at 179; see, e.g., Michael
C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and
Ownership Structure, 3 J. Fin. Econ. 305, 311 (1976) (arguing that a firm is “a nexus for
contracting relationships and which is also characterized by the existence of divisible residual
claims on the assets and cash flows”).
26. Legal historians have observed that the rise of industrial enterprise has been carried
in part on the backs of tort victims: “The Industrial Revolution added an appalling increase
in dimension. The new machines had a marvelous, unprecedented capacity for smashing the
(forthcoming 2010); see also Posner, supra note 17, at 426 (“The contract analogy breaks
down in the case of involuntary extensions of credit.... Even where the context is one of
voluntary transacting, the costs of explicitly negotiating the extent of liability may be high in
relation to the stakes involved.”).
29. In some cases, such as product liability, an argument can be made that the parties
have engaged in some bargaining. But the formal link between contract and tort has long been
that “[h]ypothetical-contract analysis is a powerful tool for understanding tort law and
determining its scope.” Stockberger v. United States, 332 F.3d 479, 483 (7th Cir. 2003)
(Posner, J.). But the “bargain” between tortfeasor and victim is an analytic heuristic, unlike
the direct negotiations for terms between creditor and debtor.
event, they receive absolution in bankruptcy). To say that liability is “limited” means that the investors in the corporation are not liable for more than the amount they chip in.30

This distinction between the corporate person as debtor and the shareholder as investor is a strange argument for contractarian scholars to make. We are told that corporate personage, the idea that a firm is an independent entity, “is a matter of convenience rather than reality.”31 If so, it naturally follows that liability should fall not on a thing that supposedly does not exist, but instead on some real person of responsibility. If the corporation does not exist in truth as contractarian theory suggests, the liability conveniently disappears with it, that is, falls on the tort victim. Yet, we are also told that the corporation does not have limited liability and thus the tort victim has recourse against it. This is a circular absurdity. Despite the above reference to the liability of the corporation, Easterbrook and Fischel clarified that limited liability “is an attribute of the investment rather than of the corporation.”32 Thus, we come back full circle: the liability must be assigned to someone.

Even the strongest proponents of limited liability recognize risk externalization is undesirable, but they argue that limited liability is justified because its many benefits outweigh the cost. These benefits are well known to most informed readers and only a short recital is necessary.33 Limited liability decreases the cost of monitoring. A diversified shareholder need not closely monitor the managers of all companies in the investment portfolio.34 Limited liability also reduces the cost

30. Easterbrook & Fischel, supra note 1, at 40.
31. Id. at 12. The corporation as a “person” is a “weak and unimportant fiction.” William T. Allen, Contracts and Communities in Corporation Law, 50 Wash. & Lee L. Rev. 1395, 1400 (1993); see Bainbridge, supra note 3, at 8 (“[T]reating the corporation as an entity separate from the people making it up bears no relation to economic reality.”). The argument originates from economic scholarship on the theory of the firm. See R. H. Coase, The Nature of the Firm, 4 Economica 386 (1937); see also Eugene F. Fama, Agency Problems and the Theory of the Firm, 88 J. Pol. Econ. 288, 290 (1980) (“In this ‘nexus of contracts’ perspective, ownership of the firm is an irrelevant concept.”).
32. Easterbrook & Fischel, supra note 1, at 11.
33. See id. at 41-44 (providing litany of well recognized justifications); see also Bainbridge, supra note 3, at 132-51; Halpern et al., supra note 4, at 117-20.
34. Easterbrook & Fischel, supra note 1, at 41.
of monitoring other shareholders. In a world of unlimited liability, the expected return of each shareholder would be a function of the personal wealth of other shareholders. With limited liability, share prices reflect only information about the potential returns of corporate assets, rather than inaccessible, nonstandard information such as shareholder wealth. The rule creates a fungible, commoditized share, which promotes free transferability. Share liquidity creates a market for corporate control. Share prices correspond to quality of management, incentivizing agents to efficiently manage corporations. With personal liability, most investors would hold the least number of securities because any single bankruptcy could potentially wipe out their personal wealth. Limited liability incentivizes diversification, reducing an investor’s exposure to firm specific risk. The ability to diversify also allows managers in turn to pursue any positive net present value project, thus increasing the overall return on any given portfolio.

These combined effects increase the value of the firm in several ways. They reduce agency cost, specifically the cost of monitoring by passive investors. Limited liability also reduces the cost of capital. The cost of equity is reduced when shares are freely alienable and there is a liquid market. The cost of debt is lowered because limited liability reduces the transaction cost of credit by providing a standard default contract term. These cost savings can then be directed toward economically productive activities of the

35. Id. at 42 (citing Halpern et al., supra note 4).
36. Id.
37. This explanation is overstated. For public corporations, while shareholders may not know the personal wealth of individual shareholders, they are so numerous that working assumptions about the collective wealth may be possible: for example, estimating the average net assets of institutional investors, or the average wealth of individual investors in the public markets. For close corporations, shareholders have greater knowledge of each other’s circumstances. See id. at 229 (“Participants in closely held corporations frequently have familial or other personal relations in addition to their business dealings.”).
39. EASTERBROOK & FISCHEL, supra note 1, at 42.
40. Id.
41. Id. at 43 (citing Henry J. Manne, Our Two Corporation Systems: Law and Economics, 53 VA. L. REV. 259 (1967)).
42. Id. at 45-46; see Jensen & Meckling, supra note 25 (constructing a theory of agency cost to explain corporate capital structure).
43. EASTERBROOK & FISCHEL, supra note 1, at 44-47.
Lastly, we should not forget that the cost of equity is reduced as well because firms can externalize some of the cost of their activities to tort victims. While proponents of limited liability do not tout this reason, for it is obviously unappealing, tort victims clearly subsidize limited liability enterprises. Thus, proponents of limited liability argue that the rule is economically efficient and increases social wealth.

B. Critique of Limited Liability

Cost externalization to tort victims is the focus of much criticism. This criticism must be unpacked. That limited liability leaves some tort victims uncompensated is an observation and not a constructive critique. Tort law teaches us that compensation for an innocent victim is not an immutable right. The right to compensation is subject to social considerations and expediencies. The superiority of compensation or limited liability is not self-evident; it must be independently established. The compelling benefits of limited liability may justify the denial of compensation to tort victims who would otherwise be entitled under the operation of tort law. The debate on limited liability is not a pure corporate law issue, akin to something like shareholder voting and merger appraisal. The

44. “The increased availability of funds for projects with positive net values is the real benefit of limited liability.” Id. at 44.
45. Id. at 49.
46. Legal historians have argued that the choice of negligence over strict liability resulted in a wealth transfer from injured plaintiffs to industry. FRIEDMAN, supra note 26, at 350-51; see MORTON HORWITZ, THE TRANSFORMATION OF AMERICAN LAW, 1780-1860, at 123-24 (1992); Robert J. Rhee, Tort Arbitrage, 60 FLA. L. REV. 125, 181 (2008) (arguing that the persistence of negligence may be attributable to “earlier draconian tradition” of enterprise).
47. EASTERBROOK & FISCHER, supra note 1, at 58.
48. The concept of duty in negligence is laden with these considerations. See, e.g., Palisgraf v. Long Island R.R. Co., 162 N.E. 99 (N.Y. 1928); see also 532 Madison Ave. Gourmet Foods, Inc. v. Finlandia Ctr., Inc., 750 N.E.2d 1097, 1100 (N.Y. 2001) (“The existence and scope of a tortfeasor’s duty is, of course, a legal question for the courts, which fix the duty point by balancing factors, including the reasonable expectations of parties and society generally, the proliferation of claims, the likelihood of unlimited or insurer-like liability, disproportionate risk and reparation allocation, and public policies affecting the expansion or limitation of new channels of liability. At its foundation, the common law of torts is a means of apportioning risks and allocating the burden of loss.” (citation and internal quotation marks omitted)); William L. Prosser, Palisgraf Revisited, 52 MICH. L. REV. 1, 15 (1953) (“These are shifting sands, and no fit foundation. There is a duty if the court says there is a duty.”).
doctrine of limited liability lies at the crossroad of torts, corporate law, and economic policy. The rule is inextricably intertwined with the normative policies of tort law insofar as corporate law reinforces or undermines them. It must be considered in a broader, extra-doctrinal context.

There are three main critiques of limited liability: first, it is unclear whether unlimited liability is really any different from ordinary catastrophic risks; second, limited liability is inconsistent with the prevailing theory that a corporation is a nexus of private property rights; third, a regime of unlimited liability is practically administrable and feasible. Let us consider these arguments more closely.

1. Ordinariness of Personal Liability

I advance here an argument that catastrophic investment liability is or should be no different from other kinds of risks a person confronts. Admittedly, the thought of a small investment resulting in a devastating loss of personal wealth elicits a visceral reaction. With joint and several liability, as well as a costly litigation system, unlimited liability would expose shareholders to “risking a disastrous loss if any corporation in which they have invested becomes insolvent.”49 This risk is catastrophic, but one questions whether it is so unique that it requires a special rule of law. The bankruptcy system exists precisely to deal with these misfortunes, and many people become bankrupt because they miscalculate future income and liability. The exposure to catastrophic risk is an ordinary part of human life.50 Automobile accidents can result in catastrophic loss even with mandated insurance. Health problems can lead to economic devastation, but many people, voluntarily or involuntarily, go without health insurance. People live in high risk earthquake or hurricane zones. We are exposed to other catastrophic financial risks as well. The value of one’s home is not insurable, and a housing market crash can lead to devastating loss of wealth. The economic value of one’s chosen profession and the risk of career

obsolescence are also uninsurable. Many personal and financial catastrophes are subject to fortune’s wind. Humankind has always lived with uncertainty and danger.\footnote{See generally Peter L. Bernstein, Against the Gods: The Remarkable Story of Risk (1998).}

For most people, stock investment would not be the most significant or risky economic activity even if unlimited liability is the rule. This presents an empirical question. What makes an equity investment so much different? Intuitively, it seems more likely that in a world of unlimited liability from investment, the probability and magnitude of catastrophic loss would be greater from other sources of risk, such as a housing market crash, routine accidents, or health problems, than from an excess liability call on shareholders.

Indeed, stock market bubbles can lead to devastating loss of personal wealth, and it is small comfort that loss is calculated from different baselines. For instance, assume that in a stock market bubble and crash an investment goes from 1000 to 0. Compare this to a loss in a normal market under a rule of unlimited liability: an investment goes from 500 to -500. The losses are the same. True, many investors may not be rational. The groundbreaking work of Amos Tversky and Daniel Kahneman showed that people apply various heuristics to frame decisionmaking.\footnote{See generally Choices, Values, and Frames (Daniel Kahneman & Amos Tversky eds., 2000); Judgment Under Uncertainty: Heuristics and Biases (Daniel Kahneman et al. eds., 1982).} Due to framing, a total loss of an investment of 1000 may be considered better than a total loss of an investment of 500 followed by a personal liability call of another 500.\footnote{See Choices, Values, and Frames, supra note 52, at 244-46.} Other heuristics that deviate from rational expectation may govern. Even with these considerations, however, the point still holds that catastrophic economic risk is an everyday presence as evinced by the routine nature of bankruptcies and financial disasters.

Asset bubbles have long been a reality of market economies. The losses associated with the financial crisis of 2008-2009, triggered by the crash of the housing, credit, and equity capital markets, have left more investors in real estate and stocks destitute than a rule of unlimited liability ever could have. Leveraged investments can lead
to losses in excess of the initial investment amount, and yet leveraged finance is a standard retail and institutional investment strategy (though like anything else it can be used unwisely). Given these observations, one wonders whether the possibility of devastating personal losses is really a deterrent to a liquid equity market. “At the end of the day, it is an empirical matter whether the potential financial catastrophe of personal liability is qualitatively different or quantitatively higher than other routinely accepted types of financial catastrophe that can befall any natural person.”

The connection between limited liability and the feasibility of a public stock market has been widely accepted, but there is no empirical proof of this. There is evidence that personal liability does not tame the animal spirit of public stock trading. Joint stock associations with dispersed shareholders subject to unlimited liability traded widely in England in the eighteenth century. Up to the middle of the twentieth century, some public banks had unlimited liability. Until 1931, shareholders in California corporations had personal liability for creditors’ claims in proportion to their equity stake. Up until 1965, American Express had unlimited liability as a joint stock association and yet its shares traded adequately. That courts routinely pierce the veil suggests that even before an investment is made investors know there is a tangible possibility of personal liability. This does not deter most

56. Thompson, supra note 11, at 19.
57. Phillip I. Blumberg, Limited Liability and Corporate Groups, 11 J. Corp. L. 573, 581-82 (1986). Limited liability has been a regular feature of American corporations since the mid-nineteenth century. Id. at 587-95.
61. Easterbrook & Fischel, supra note 1, at 54-56.
people from engaging in the activity of equity investment or holding diversified portfolios.

As the economist Robert Shiller observed, some of the most important catastrophic risks are not insurable. Yet, while people worry about their exposure to these risks, the activities of life do not stop. The proposition that stock markets would cease to exist or be substantially hampered without limited liability may be an overhyped specter of corporate law. To be sure, there would be substantial effects on stock trading. Valuations would decline overall. Investors would apply greater discounts to companies perceived to have greater risk and a relative premium to those least likely to expose shareholders to a liability call. The capital markets may also find ways to shield at least some of the extreme risk of personal liability. There remains a nagging question of why equity investment and a specific segment of society (shareholders) are so special that the activity of stock investment must come with the special legal protection of limited liability.

2. Cost Externalization

The most common criticism of limited liability is the problem of cost externalization and the resulting incentive to overinvest in risky activities. Let us disregard the tort-based argument that it is just to fully compensate a victim (these arguments have been well developed in tort scholarship and need no repeating here), and instead focus on the corporate side of the equation. In addition to the moral hazard of incentivizing excessive risk-taking, a well known problem requiring no further elaboration, the ready acceptance of negative externalities is a contradiction in the prevailing theory of the firm. Under this theory, the corporation as an independent legal person is rejected. Nor are its assets seen as subject to a common ownership, that is, the inaccurate proposition that shareholders are the “owners” of the corporation. Rather, a

65. See supra note 31.
66. See Stephen M. Bainbridge, Why a Board? Group Decisionmaking in Corporate
firm is an aggregation of the factors of production. Each participant has a specific contractual claim on the income of the enterprise. The corporation is seen as a “nexus of contracts,” a web of contractual claims of the factors of production against the cash flow and assets of the corporation; and corporate law simply provides the standard-form contract.67 This property-based model provides the intellectual foundation for rejecting the concession theory of corporate law and supports the view that corporate law is enabling and not regulatory.68

If one takes seriously this property-based theory of the firm, limited liability is at odds with the basic principle of private property rights. Consider that the effects of activity can be seen as bilateral, beneficial to one but harmful to another, and negotiations between private parties can eliminate differences between private and social cost.69 Given these social interdependencies, a “primary function of property rights is that of guiding incentives to achieve a greater internalization of externalities.”70 Private property rights develop when the benefit from internalization of externalities outweighs the cost of achieving it.71 Private ownership is better when it internalizes the externalities associated with communal ownership. With the right to exclude others and to consume the asset, the owner is incentivized to use resources more efficiently.72

Limited liability may lead to inefficient use of corporate assets. Shareholder profit maximization does not equal social wealth maximization. A firm may be financially profitable and yet be socially costly, and limited liability may cause this disparity between private gain and social cost. As a simple example, assume that a firm has equity capital of 500; it makes profits of 100 for ten

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Governance, 55 Vand. L. Rev. 1, 4 n.9 (2002) ("In the dominant nexus of contracts theory of the firm, ownership is not a meaningful concept because shareholders are simply one of the inputs bound together by this web of voluntary agreements."); Macey, supra note 14, at 179 ("[T]he concept of firm ownership is irrelevant."); Lynn A. Stout, Bad and Not-So-Bad Arguments for Shareholder Primacy, 75 S. Cal. L. Rev. 1189, 1191 (2002) ("A lawyer would know that the shareholders do not, in fact, own the corporation.").
67. EASTERBROOK & FISCHER, supra note 1, at 15.
68. Allen, supra note 31, at 1400.
69. See, e.g., Coase, supra note 27, at 5-6.
71. Id. at 350.
72. Id. at 356.
years, which are distributed each year for a total profit of 1000; in the eleventh year, the firm incurs a liability of 2000; the equity of 500 is lost, but there still remains 1500 in excess liability. Disregarding time value considerations, we see that shareholders netted a profit of 500, but the firm produced a net social cost of 1000. This stylized example illustrates the routine practice of quarantining highly risky activities through separate incorporation. A firm can make a profit by creating wealth, or by capturing a private gain through subsidization. Thus, although social wealth and shareholder profit maximization are highly correlated, the purpose of limited liability must be based on societal wealth enhancement and not private gain of shareholders.

When the cost of internalization is too high, society has several choices: it can prohibit the activity to eliminate the externality; it can permit the activity with the protection of limited liability; or it can choose to regulate limited liability to minimize the externality. Again, we are left with the empirical question of whether this cost-benefit analysis justifies the status quo of limited liability or calls for an alternative regime to regulate limited liability. If the latter is the better choice, what should be regulated? The rule of limited liability or the underlying business activity itself?

3. Administrative Feasibility of Personal Liability

Prominent corporate law scholars Henry Hansmann and Reinier Kraakman sought to answer these open questions in a much debated article published in the *Yale Law Journal*. Representing the outer extreme of criticism of limited liability, their argument calls for the abolition of limited liability as to tort creditors. They

75. Hansmann & Kraakman, *supra* note 4, at 1880. Nina Mendelson has proposed an argument that is almost as sweeping in scope: unlimited joint liability for controlling shareholders. Mendelson, *supra* note 6, at 1271-72. Other scholars have noted that a shareholder’s lack of control is an important justification for limited liability. Gabaldon, *supra* note 13, at 1399-1402. Under Mendelson’s proposal, only a shareholder with a small holding
argue that limited liability is plainly inefficient. Since tort victims subsidize risk-taking, limited liability disincentivizes precautions and incentivizes overinvestment in hazardous activities.\textsuperscript{76} If a business is economically infeasible with full cost internalization, its activities should not be allowed. The main thrust of the argument is not to critique limited liability, but Hansmann and Kraakman advance the idea that a scheme of personal liability can be implemented within the constraint of economic efficiency and practical administrability.\textsuperscript{77}

Much of the harsh effect of personal liability—the fearsome prospect of financial catastrophe—can be mitigated by choosing a pro rata rule of recovery rather than a rule of joint and several liability.\textsuperscript{78} Joint and several liability disproportionately affects wealthy shareholders. They would be deterred from investing in the stock market, resulting in the same stock being worth less to them. The pro rata rule protects most shareholders from insolvency. It ensures that the expected value of a share is the same for every shareholder, thus eliminating the cost of monitoring other shareholders’ wealth.\textsuperscript{79} A pro rata rule also addresses the concern of excess monitoring of agents. Its only effect is a marginal increase in the shareholder’s incentive to monitor managers for the full cost of the expected tort loss.\textsuperscript{80} Since shareholder monitoring is very low anyway, particularly for retail shareholders, there is no expected additional cost. Any additional monitoring by institutional shareholders at the margin encourages managers to consider the full social cost of the firm’s activities.

Hansmann and Kraakman address the many problems of administrability. The alienability of shares raises the question of when liability should attach. Administrability and opportunistic
evasion are problems. The suggested rule is at the earliest of: “(1) when the tort claims ... were filed; (2) when ... management first became aware that, with high probability, such claims would be filed; or (3) when the corporation dissolved without leaving a contractual successor.”81 This rule fixes liability before shareholders can evade responsibility for the tort by simply selling their shares.82 Also, the cost of collection is not excessive.83 The liability date rule makes clear which shareholders should be liable. Wealthy shareholders have little incentive to litigate their liability assessment because they would be pursued anyway. Smaller shareholders are incentivized to cooperate if attorney fees and costs are assessed against an unsuccessful shareholder defendant.84

A rule of unlimited liability undoubtedly lowers the value of securities.85 The full internalization of tort liability into the share price increases the cost of equity.86 There is also an administrative cost associated with the effort to internalize tort costs. However, Hansmann and Kraakman argued that such internalization is economically feasible.87 They challenge that “the burden is now on the proponents of limited liability to justify the prevailing rule.”88

C. Assessment of the Debate

Even if scholars disagree on the legitimacy of limited liability, there is agreement on the important principle that, as a general proposition, cost externalization is a bad thing.89 The essential dispute boils down to this point: “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.”90 Does limited liability provide greater societal benefits

81. Id. at 1897-98 (labeling this the “liability date”).
82. Id.
83. Id. at 1900.
84. Id. at 1903.
85. Id.
86. Id.
87. Id. at 1903-04.
88. Id. at 1880.
89. See, e.g., EASTERBROOK & FISCHEL, supra note 1, at 50.
90. Id.
than its costs? The indirect evidence, though incomplete and imperfect, suggests that the answer is probably yes. Scholars have observed that “the dominance of limited liability—when it is simple to pass greater risks to equity investors by contract—speaks eloquently” and that since the publication of Hansmann and Kraakman’s article no state has repealed limited liability for tort creditors. Of course, the assertion that limited liability reigns supreme must be tempered by the fact that it is only a default rule, and the credit market (but importantly not the tort market) frequently requires its waiver by shareholders. The fact that states have not repealed limited liability is not necessarily indicative of efficiency but can simply evince an insurmountable competitive disadvantage of its abrogation in the state competition for corporate law, thus posing a collective action problem among states. With these substantial qualifiers, the inference from market behavior and the political process suggests that the cost-benefit analysis probably favors limited liability.

The superiority of personal liability is far from self-evident. Even with clear procedural rules, we cannot be so sanguine about the cost of litigation. The process of searching for the correct shareholders to sue, litigation on the merits, and collection of judgments may be complicated and time consuming, resulting in prohibitive transaction costs. The American litigation system is costly. The addition of a diffused shareholder base as parties would necessarily increase

91. As noted before, the political dimension of limited liability is firmly affixed.
92. Easterbrook & Fischel, supra note 1, at 50. Limited liability is the dominant standard for public corporations, and no public shareholder has been held personally accountable for the liability of the corporations. Thompson, supra note 59, at 1039, 1047 & n.71.
93. Bainbridge, supra note 3, at 145; see Radaszewski v. Telecom Corp., 981 F.2d 305, 311 (8th Cir. 1992) (“That is the whole purpose of the [limited liability] doctrine, and those who have the right to decide such questions, that is, legislatures, believe that the doctrine, on the whole, is socially reasonable and useful.”).
94. This is not to suggest that litigation is inherently inefficient for dispute resolution necessarily requires the cost associated with price discovery. Robert J. Rhee, A Price Theory of Legal Bargaining: An Inquiry into the Selection of Settlement and Litigation Under Uncertainty, 56 Emory L.J. 619 (2006).
95. Alexander, supra note 24, at 389 (“For practical purposes, the law would be unenforceable.”).
96. See Samuel R. Gross & Kent D. Syverud, Don’t Try: Civil Jury Verdicts in a System Geared to Settlement, 44 UCLA L. Rev. 1, 62 (1996) (“We have designed a spectacular system for adjudicating disputes, but it is too expensive to use.”).
the cost of administration. The procedural advantage of a single,
terminal suit against a corporate defendant cannot be overstated.

Unlimited liability has implications on corporate governance as
well. Not only would each shareholder have different risk prefer-
ences and opinions on the liability exposure of the corporation, but
their views may conflict with those of the board and management.97
With shareholder personal wealth at stake, there may be new and
complex fiduciary duty issues. A conflict of interest between share-
holders and managers beyond the ordinary agency problem (which
is still the fundamental problem of corporate law) is a distinct
possibility, and it may have adverse consequences. Managers, who
may not have a personal stake, may analyze legal liability from a
risk neutral perspective. The selection of projects based on maximiz-
ing net present value increases the value of the firm and a diversi-
fied portfolio. But shareholders may not see the problem this way.
They would be risk averse given the direct connection between
corporate activity and the potential for extra-investment diminu-
tion of personal wealth. But the introduction of greater risk aversion into
corporate decision making would undermine diversification. For in-
stance, corporate decisions with respect to large legal actions may
be influenced. Corporate defendants may systematically settle cases
in excess of their expected values, that is, pay a settlement premium
to avoid a potential catastrophic liability to shareholders. Thus,
settlements may result in payouts greater than the expected value.98

The empirical question remains open. The weight of Hansmann
and Kraakman’s proposal does not shift the balance of the debate
toward a presumption against the efficiency of limited liability.
There is also the reality of the political economy. “[L]imited liability
is so imbedded in our law and our economic institutions, and
the political opposition to its abolition would be so powerful, that

97. See Jonathan Macey, The Nature of Conflicts of Interest Within the Firm, 31 J. Corp.
98. This may not be a bad thing from the perspective of tort policy if settlement valuations
are otherwise biased in favor of institutional defendants. In another article, I argued: “Tort
law in the shadow of the civil litigation system presents an arbitrage opportunity for the tort
defendant.... The defendant’s lower cost of resolution—in essence a lower cost of transacting
to fund the accident—allows the defendant to exploit this price disparity, thus externalizing
transaction cost to plaintiffs.” Rhee, supra note 46, at 169. The two effects can offset,
providing perhaps the better “clearing price” of disputes if the effect of the plaintiff’s discount
offsets the effect of the defendant’s premium.
fundamental change seems inconceivable except in theory. The rule will not be abrogated anytime soon. In fact, the trend is the opposite; the rapid growth of limited liability companies has led to an expansion of limited liability as a standard entitlement of business. Therefore, there seems to be an efficiency axiom of limited liability, which posits that limited liability is good economic policy.

D. Purpose and Regulation of the Rule

The purpose of limited liability should be explicitly stated for it should not be misunderstood. The rule’s purpose is not to facilitate liability avoidance, though this is always the effect of shielding shareholders from excess liability. In the simplest terms, the rule cannot be based on the principle that A should suffer loss of a to make B wealthier by a. The injustice of this transfer payment would be manifest since shareholders are exempt from a liability rule applicable to everyone else, and in this case there is no reason why tort law should not take priority over corporate law to correct a legal wrong. The sole justification for limited liability must be that A should suffer loss of a to make B or society wealthier by b where b > a, and there is a substantial cost of effectuating compensation from the surplus created. In other words, cost-benefit analysis supports limited liability.

With perfect information, the concept of limited liability would be irrelevant. Imagine that an oracle of society can divine the future. Granting limited liability with the knowledge that the firm would impose a net social cost—the lives, limbs, and livelihoods of tort victims—would be unjust. Either society would deny such firms the benefit of limited liability, or it would force shareholders to prefund the social cost (in either way there would be no rationale for the venture). Of course, legal or economic policy cannot be based on omniscience. With uncertainty as the operating reality, the ex ante assumption must be that every firm will be socially productive and

101. Hansmann & Kraakman, supra note 4, at 1879.
102. See infra Part II.A.
that entrepreneurs intend in good faith not to use limited liability as a factor of profit. But as a matter of probability, there will always be ex post liability avoidance, and the entrepreneur’s good faith is not a moral commitment to compensate tort victims after the fact. This bad effect is tolerated, but the normative purpose should be to discourage it even in a regime that accepts limited liability as good policy.103

This raises a fundamental question for corporate law: is there a scheme that can capture the benefits of limited liability while minimizing the bad effects of liability avoidance? The abolition of limited liability goes too far. Most are resigned to the imperfect world of limited liability, but this is also unsatisfactory. Limited liability and tort law are obvious bedfellows. Yet, traditional tort scholarship seems to accept implicitly the judgment-proof defendant even as limited liability undermines its core principles. And corporate law scholarship has eschewed an extradontional analysis.104 On this point, a curious nativism of corporate law is seen. Easterbrook and Fischel framed the issue this way: “[S]ociety must choose whether to conscript the firm’s strength (its tendency to maximize wealth) by changing the prices it confronts or by changing its structure so that it is less apt to maximize wealth. The latter choice will yield less of both good ends than the former.”105 Hansmann and Kraakman struck a similar note: “[T]he most efficacious legal mechanisms for protecting the interests of nonshareholder constituencies ... lie outside of corporate law.”106 Regarding the problem of torts, Stephen Bainbridge noted: “[Q]uestion whether this is an argument for tort reform rather than for abolishing limited liability?”107 The message is clear: hands off corporate law.108

The suggestion that the answer lies outside of corporate law is an empty comment, a reflex of an isolationist view of corporate law

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103. See infra text accompanying note 187.
104. But see Alexander, supra note 24, at 391 (“Limited liability thus threatens the animating principles of tort law.”).
105. EASTERBROOK & FISCHEL, supra note 1, at 38.
106. Hansmann & Kraakman, supra note 100, at 442.
107. BAINBRIDGE, supra note 3, at 141.
108. See ALAN PALMITER & FRANK PARTNOY, CORPORATIONS: A CONTEMPORARY APPROACH, at viii (2010) (“Corporate law teaches ‘hands off.’ A fundamental tenet of corporate law is that judges, and other would-be regulators, should keep their hands off corporate decision making, an essentially private matter.”).
rather than an analysis of the hard social problem of limited liability. It is unlikely that tort reform, which has been aimed at curbing tort liability, can cure the problem of an undercapitalized firm. As far as regulation of solvency, Richard Posner has suggested that the government could take a more active role.109

This could be accomplished by requiring that a corporation maintain a fixed ratio of equity in liabilities and by limiting the corporation’s right to engage in risky enterprises. This is the regime in banking ... and in European corporate law. In both instances, however, there is continuous regulatory scrutiny of the corporation by an administrative agency, a statist solution that has thus far been resisted in most nonfinancial industries in the United States.110

However, regulation outside of corporate law would be inconsistent at best. Coverage-oriented reforms like mandatory insurance and minimum capitalization requirements are administratively difficult to implement across the diversity of enterprises, industries, circumstances, and jurisdictions.111 “Only with hindsight can one determine accurately how much capital or insurance will be necessary for any given corporation.”112 Outside of regulated industries like financial services,113 the operating decision of capital structure is better left to managers acting in the best interest of a going concern. In a political society, bad conduct can be deterred through an appropriately priced tax or penalty, but there is no reason why the “price” of an activity cannot be set at the spring source of the problem rather than being dealt with as it branches off in many meandering directions. The proper price of deterring liability avoidance can be accomplished by reforming limited liability.

Another point on the relationship between limited liability and tort law needs clarification. Limited liability is a grant from the state. The acknowledgment of the state concession does not lead

110. Id.
111. Hansmann & Kraakman, supra note 4, at 1927.
112. Stephen M. Bainbridge, Abolishing Veil Piercing, 26 J. Corp. L. 476, 524-25 (2001). But see Grundfest, supra note 63, at 421 (arguing that “leading alternatives” to shareholder liability may include minimum capitalization and insurance requirements).
113. See supra note 54.
to the view that corporations should be seen as economic arms of the sovereign or that they owe special public duties outside of their profit-making activities. 114 I do not rely on the “grant” or “concession” theory. 115 But obviously a corporation as a nexus of private ordering is subject to taxes, fees, rules of law, and other governmental limitations and burdens. The point is simple: limited liability is a legal entitlement granted by the sovereign, the receipt of which the state may impose conditions. 116 Scholars have noted that private ordering of investors and creditors can create limited liability; the rule is seen as providing a default term of credit transactions. 117 This may be true as to contract creditors. Even with a state grant of limited liability, shareholders and creditors can and routinely do contract around or modify the rule. 118 Without limited liability, we may see the reverse of these transactions as well, though it is uncertain how frequently general partners contract for limited liability with their creditors. 119

Tort creditors are different, however, because they do not explicitly contract for the standard of care. 120 Just as tort compensation
is made possible through the grant of a right from the state, so too are limitations on compensation. No amount of theorizing about the corporation being nothing more than a “nexus of contracts” or contortions thereof can gloss over the plain fact that limited liability is not a “birthright.” Where the existence of tort law is the baseline, private ordering cannot synthetically gin up the legal right of limited liability. In the realm of torts and corporate law, the state can grant limited liability, abrogate it, or modify it. Stated differently, no one but the sovereign has the power to declare one immune from liability. Therefore, the state can define the contours of liability at the intersection of torts and corporations. Corporate law is not so special that limited liability should be considered a natural right of enterprise. It should be subject to regulation. That veil-piercing continues to be a vital judicial doctrine—indeed the most litigated in corporate law—speaks eloquently to the dynamic capacity for regulation of liability and the allocation of risk.

Although the rule of limited liability is politically secure, the debate is more important than ever. Our economic system continues to invent new forms of liability avoidance and risk management strategies. Until recently limited liability was the primary benefit of the corporate form. This is no longer the case. Since Wyoming passed the first limited liability statute in 1977, limited liability companies (LLCs) have seen rapid growth in the 1990s. All fifty states had adopted LLC statutes by 1999. LLCs combine the advantages of tax pass through treatment, informal management

T.J. Hooper, 60 F.2d 737, 740 (2d Cir. 1932) (Hand, J.) (reasoning that “there are precautions so imperative that even their universal disregard will not excuse their omission”); cf. Rodi Yachts, Inc. v. Nat’l Marine, Inc., 984 F.2d 880, 888-89 (7th Cir. 1993) (Posner, J.) (reasoning that the standard of care may be “fixed by the market”).

121. See infra note 133.
122. See Leebron, supra note 4, at 1569 (observing that limited liability seems to be a “birthright” of corporations).
123. Obviously, defendants can engage in a number of liability avoidance strategies to defeat unlimited liability. See generally Lynn M. LoPucki, The Death of Liability, 106 YALE L.J. 1, 4-5 (1996).
124. Thompson, supra note 59, at 1036.
125. LoPucki, supra note 123.
128. Id.
structure, and limited liability, thus conferring the benefits of general partnerships and corporations. They are fast rivaling corporations as the preferred business organizational form for private and smaller businesses. Consider the following data on the number of new filings and active entities for 2008 and compounded annual growth rates (CAGR) for the period 2003-2008, for California, Delaware, and New York.

<table>
<thead>
<tr>
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<th>New Filings</th>
<th>Active Entities</th>
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<tr>
<td></td>
<td>Corp. LLC</td>
<td>Corp. LLC</td>
</tr>
<tr>
<td>California</td>
<td>95,304</td>
<td>65,689</td>
</tr>
<tr>
<td>Delaware</td>
<td>29,501</td>
<td>81,923</td>
</tr>
<tr>
<td>New York</td>
<td>73,769</td>
<td>48,788</td>
</tr>
<tr>
<td>Total &amp; CAGR</td>
<td>198,574</td>
<td>196,400</td>
</tr>
</tbody>
</table>

The data are telling. LLCs are growing faster than corporations, and the number of new filings and active companies and the rate of growth of LLCs now rival or exceed those of corporations. In the twenty-first century, limited liability is no longer the prime domain of the corporate form as it was for much of the twentieth century; it is the standard operating reality of engaging in most business enterprises today, from the largest corporations to a single person venture. More businesses today are covered by limited liability than in any other period in business history. For a small fee, any

129. Id. at 839.
130. See infra tbl.1.
131. The data were provided by the following sources: e-mail from Barbara Bush, Business Programs Division, California Secretary of State (June 10, 2009) (on file with author); e-mail from Donna Mendes, Division of Corporations, Delaware Department of State (June 15, 2009) (on file with author); e-mails from Alan Adami, Division of Corporations, New York Department of State (June 9 and July 2, 2009) (on file with the author).
132. See Richard A. Booth, Profit-Seeking, Individual Liability, and the Idea of the Firm, 73 WASH. U. L.Q. 539, 541 (1995) (“Thus, the rather sudden emergence and astonishing growth of the LLC should be seen as part of a larger evolutionary trend in business organization law.”).
business venture can buy the protection of limited liability, and absent circumstances that trigger veil-piercing, the equity holder is protected from liability in excess of the initial investment.

II. THE MIDDLE GROUND

A. Efficiency and Equity

The corporate law concept of limited liability conflicts with the animating tort principles of compensation and deterrence. Given this conflict, it has been assumed that limited liability is the superior concept, and thus tort law subordinates to corporate law. Why? The answer cannot be liability avoidance. It must be that the efficiency gains of limited liability outweigh the problem of tort subsidization. The concept of efficiency merits closer study.

The criterion used to determine the rule’s efficiency is important. Limited liability is said to be efficient based on the Kaldor-Hicks criterion, which is distinguished from the Pareto superior efficiency. The Pareto superior criterion states that a change is efficient if at least one person is made better off and no person is made worse off. This criterion is satisfied when gainers compensate losers such that there are only gainers and no losers. Its satisfaction is ideal, but the standard is considered too stringent. It has few practical applications because transactions often have third-party effects and the cost of bringing about compensation may often exceed the net surplus. In contrast, Kaldor-Hicks efficiency provides that a change is efficient if gainers gain more than the losers lose. The important concept is that in principle gainers could compensate losers and still enjoy a surplus, but compensation is not required.

134. See supra notes 1-4 and accompanying text.
135. ROBERT COOTER & THOMAS ULEN, LAW & ECONOMICS 17 (5th ed. 2008).
136. See POSNER, supra note 17, at 13 (stating that most policy analysis is done under the Kaldor-Hicks standard).
137. COOTER & ULEN, supra note 135, at 47.
This is essentially a cost-benefit analysis, and it has greater practical application than the Pareto superior criterion. Thus, Kaldor-Hicks efficiency has become a standard framework for evaluating enterprise law. Limited liability satisfies the Kaldor-Hicks criterion, but obviously not the Pareto superior criterion. Compensation is not required to satisfy the efficiency standard. Yet, the most ideal efficiency—which is to say the most equitable—is the satisfaction of the Pareto superior criterion. In principle, shareholder surplus (the additional value created by limited liability) can be distributed to compensate tort victims. The payment mechanism can be devised in two ways: the group of winners can collectively pay the group of losers; or, anticipating a potential loss that exceeds its ability to pay, the individual winner can pay the individual loser by incrementally saving sufficient amounts to prefund compensation.

The transfer of some surplus from shareholders to tort victims is not cost free. Wealth is often redistributed in a “leaky bucket” where some amount disappears as cost. This cost must be factored into the calculus of whether payment is feasible. The potential costs are two. First, there is always an administrative cost of delivering compensation. Second, there is the possibility that requiring a surplus transfer would change the investment incentive such that the expected gain from the enterprise would be lower than that under a rule of limited liability. In other words, a fundamental change to the rule of limited liability would eliminate its benefit such that surplus disappears and there is nothing to distribute.

138. Id.
139. William Allen et al., Commentaries and Cases on the Law of Business Organizations 5 (2d ed. 2007); see Gabaldon, supra note 13, at 1403-04 (recognizing that cost-benefit efficiency is the governing principle in corporate law).
140. Cooter & Ulen, supra note 135, at 47.
141. Id.
142. Arthur M. Okun, Equality and Efficiency: The Big Tradeoff 91 (1975) (“[T]he money must be carried from the rich to the poor in a leaky bucket.”).
143. Limited liability also can be justified on grounds that it increases the size of the pie out of which the tort creditors’ claims may be satisfied, by encouraging equity investment in corporations. In such a world of unlimited liability, large-scale businesses would be conducted by highly-leveraged firms having a small amount of equity capital and a very large amount of secured debt. Bainbridge, supra note 3, at 142.
The Hansmann-Kraakman proposal, for instance, imposes both forms of costs (an increase in administrative cost and the cost of equity), and thus the delivery of compensation under unlimited liability may be inefficient.144

The problem with the Kaldor-Hicks criterion is that the distributive concern is irrelevant. “In other words, efficiency corresponds to ‘the size of the pie,’ while equity has to do with how it is sliced.”145 Under the rule of limited liability, shareholders win and tort victims lose. Equity is irrelevant. All else being equal, cost internalization is a superior policy, which means that the normative goal should be toward satisfying the distributive ideal. Additionally, cost internalization produces net social benefits as well by incentivizing efficient activity.146

We can reduce the above efficiency considerations into a simple model of limited liability and the conditions necessary for its reform.

Let: 

\[ a \] = uncompensated loss of tort victims
\[ b \] = wealth gain of shareholders
\[ t \] = amount transferred to tort victims
\[ c \] = administrative cost of transferring surplus
\[ e \] = net efficiency gain from greater cost internalization

The efficiency axiom states that the wealth gain of shareholders is greater than the uncompensated loss of tort victims.

\[ b > a \]

If so, the rule of limited liability creates a surplus in wealth.

\[ s = b - a \quad \text{where} \quad s > 0 \]

Surplus can be used to transfer an amount up to the uncompensated loss to tort victims. If so, the following inequity must be true.

\[ b - t > a - t \quad \text{where} \quad (a - t) \geq 0 \]

This inequality simply states that limited liability satisfies the Kaldor-Hicks criterion. In a world of zero administrative cost, shareholders could compensate tort victims, whose uncompensated loss is reduced by the transferred amount, and still enjoy a net surplus.

144. See Hansmann & Kraakman, supra note 4, at 1897, 1903.
146. See Easterbrook & Fischel, supra note 1 (providing a litany of well recognized justifications, including social benefits).
Obviously, this inequality is incomplete. A reformation of limited liability means actual delivery of compensation, and this would have two additional effects: (1) the expenditure of administrative cost, and (2) the net efficiency gain received by greater cost internalization and a reduction in the secondary and tertiary costs of torts on the broader society.147 A reform of limited liability is efficient or efficiency neutral when this condition is met.

\[ e \geq c \]

Because there is always an efficiency gain from greater risk internalization and efficient rates of accidents,148 a change in the rule is efficient or efficiency neutral if the cost of bringing about the surplus transfer is sufficiently low such that it is offset or exceeded by the efficiency gain. The implication is that if a reform ensures fidelity to the concept of limited liability, there is no increase in the cost of equity due to uncertainty over liability. In this state, the net efficiency gain equates to the benefit of more cost internalization.

The implications are clear. A reform of the rule is practically feasible if fidelity to the core principle of limited liability is preserved, and if the cost of administering a surplus transfer is low. The cost of administration can be estimated, but what is the net efficiency gain?149 Like the efficiency axiom of limited liability, these issues must necessarily be answered to some degree in the abstract because we cannot empirically verify it. However, if the condition of a low administrative cost is met, doubt in the face of empirical uncertainty should be resolved in favor of a more equitable distribution of surplus. This makes sense because risk internalization will always have a social benefit,150 and because equity is a normative value for which some tradeoff in efficiency can make sense. The presentment of an administratively feasible scheme shifts the burden to proponents of limited liability to show why a transfer of

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149. See infra Part II.B. (arguing that bonded limited liability may deter asset partitioning associated with an ex ante intent to avoid liability).
150. See infra note 208 and accompanying text (stating that insuring against risk generally establishes a fund for the benefit of society).
surplus would be so inefficient given the presumption that equitable distribution is normatively superior.

B. Bonded Limited Liability

The problem is simply stated: can limited liability be reformed in a way that the Kaldor-Hicks efficiency is not diminished, but greater equity is significantly achieved by actually delivering compensation under an administratively feasible scheme? Bonded limited liability meets the criterion of efficiency, but produces a more equitable result through a cost effective surplus transfer.

A bond is a promise to perform bound by an obligation to pay in the event of failed performance. In the insurance context, a bond is a commitment to perform, usually guaranteed by a surety or the posting of funds to indemnify performance. The most basic difference between a bond and insurance is a philosophical one: in insurance, losses are expected because fortuitous risk is unavoidable; in a bonded transaction, no losses are expected because the bond is premised on the principal’s good faith. Implied in the rule of limited liability is an assumption of good faith. As discussed, most businesses do not invoke the rule of limited liability, and the conferral of that protection assumes an ex ante good faith expectation that all liabilities will be paid. Why should this good faith expectation of performance not be bonded?

The idea is simple: shareholders should be protected by limited liability, but limited liability should be financially bonded. Bonding in corporate law is not an alien concept. The purchase of stock is an act of bonding. By putting up equity capital needed to buy corporate assets, shareholders bond their contractual obligation to bear the specialized risk of the enterprise. There is no reason why corporate law should not require shareholders to post a bond to remedy the substantial social problem posed by limited liability. The real

153. Id. at 608. It is not unusual for government to require bonds. For example, courts and agencies may require fidelity and litigation bonds, and agencies may require license and permit bonds. See id. at 609-11 (discussing various forms of bond).
issue in the debate on limited liability is: how should we structure this bond? A regime of unlimited liability would bond the shareholders’ good faith belief in profitability with personal assets. For reasons discussed, this legal theory may be elegant in its purity, but it is unpersuasive. Instead of an intellectually absolute argument, “a more modest, less theoretically elegant approach may actually be more effective.” The idea of bonded limited liability is a middle position that is nevertheless a sweeping reform.

Society should not take the expectation of profit for granted. It should require shareholders to bond their good faith with mandatory participation in the capitalization of a compensation fund. The compensation fund should be large enough to generate earnings from which excess liability can be partially or wholly met. There are four important attributes of the bond structure.

(1) The bond should be small enough so that it does not deter the engagement of enterprise, but large enough to capitalize a substantial compensation pool. Market practice suggests the range of value. Even with recurring administrative fees and franchise taxes, businesses still choose to charter a limited liability entity. A bond in the range of capitalized fees or taxes would not be burdensome. Pricing is affected by the participation rate. With mandatory participation, a low price for a bond is possible.

(2) The bond should be fixed. Uncertainty increases the cost of capital, which reduces firm value. This is why a regime of unlimited liability is infeasible. If a bond is a small, predictable sum, the firm’s cost of capital should not be affected. The certainty of a fixed valuational reference also reduces administrative cost.

155. Alexander, supra note 24, at 444.
156. See supra note 8 and accompanying text (discussing corporate good faith).
158. Tort liability is subject to forecasting by large enterprises, and they regularly reserve for this contingency. Insolvency typically results when liability is catastrophic. Exposure to such liability increases the cost of capital. We see this effect at work in the insurance field. In the face of low frequency and high severity liability, insurers must hold sufficient capital to meet the unlikely event a catastrophic loss occurs, resulting in premium increases greater than the actuarial risk. See Robert J. Rhee, Terrorism Risk in a Post-9/11 Economy: The Convergence of Capital Markets, Insurance and Government Action, 37 Ariz. St. L.J. 435, 474-77 (2005).
159. See Easterbrook & Fischel, supra note 1, at 44-47.
160. See Halpern et al., supra note 4, at 139-40 (suggesting that individualized assessment comes with “substantial surveillance costs”).
There are two ways to assign a fixed bond value: either a fixed dollar amount, or a fixed percentage based on some reference such as a market value.

(3) The bond should be a one-time obligation, subject to forfeiture and reassessment upon reorganization. It is not a fee charged by the state for administrative services. It is not a tax obligation inuring to the state for the privilege of chartering or conducting business in the state. It is not an insurance premium protecting the firm against bankruptcy risk. Rather, it is the posting of an asset forfeitable only upon a failure to perform.

(4) The bond should be redeemable. In this way, the proposal here is different from a mandatory insurance scheme. The bond is not a premium so much as it is a return-free capital contribution. The shareholder’s economic loss is the opportunity cost of capital, but the principal is protected as long as the firm does not have excess liability. Bankruptcy constitutes nonperformance and forfeiture of the bond irrespective of the cause of insolvency. Otherwise, the bond is subject to redemption upon dissolution of the firm. Only tort victims have a claim on earnings and forfeited principal. The bond and surplus do not inure to the state.

These four qualities of the bond permit a transfer of the surplus gained from limited liability to tort victims. We need not be resigned to a hypothetical compensation and instead can deliver actual compensation still owed. The financial obligation, being minor, does not deter the engagement of enterprise. The original surplus gained from limited liability is left intact, but instead only its allocation as between shareholders and victims changes. The wealth transferred equals the expected value of bond forfeiture plus the return on the fund.

If the administrative cost of a surplus transfer or the cost to the industry exceeds the benefit gained, the scheme cannot be justified. Here, administration is ministerial in nature, and the cost of maintaining a compensation fund is minimal.

161. See id. at 40 (discussing absolution in bankruptcy).
162. See infra Part II.D. (discussing the potential objection concerning an inefficient use of capital).
164. For example, the administrative cost of Social Security is 3 percent. RUDOLF ENZ & THOMAS HOLZHEU, SWISS RE, SIGMA NO. 6/2004, THE ECONOMICS OF LIABILITY LOSSES—
task is collection, maintenance, and distribution. There are no expenses associated with private insurance such as underwriting and claims adjustment. The cost of the claiming process piggybacks on the litigation process that resulted in the liability. Bonded limited liability is cost effective.

In addition to the benefit of compensation, bonding also deters the intended abuse of limited liability. If the economic theory is taken on its face value, the avoidance of liability is tolerated, not touted. We should discourage the misuse of limited liability as a liability avoidance device. Bonded limited liability can deter intended externalization of cost to others for the profit motive. Such a scheme is socially costly because it relies upon subsidization as the means of achieving profit.

Consider a classic case on limited liability, Walkovszky v. Carlton. There, the plaintiff Walkovszky was struck by a taxi operated by Seon Cab Corporation. This company was one of ten taxi corporations owned by a single shareholder, Carlton. Each corporation had as assets two taxi cabs and carried the minimum $10,000 liability insurance required by New York law. Because Seon’s assets may not have been sufficient, the plaintiff sought to pierce the veil and to bring in the defendant shareholder’s personal assets, that is, the assets of all ten corporations. The court of appeals affirmed the dismissal of the plaintiff’s complaint. It rejected the plaintiff’s theories that the corporations were run as a single enterprise and that the multiple corporate structures constituted an unlawful fraud on the public.

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165. See infra Part III.B.
166. A private insurance premium includes a substantial loading charge ranging from 10 to 50 percent of the premium. SCOTT E. HARRINGTON & GREGORY R. NIEHAUS, RISK MANAGEMENT AND INSURANCE 170 (2d ed. 2004).
167. See generally POSNER, supra note 17, at 13 (discussing the cost of bringing about compensation).
168. 223 N.E.2d 6 (N.Y. 1966). This case has been the subject of much commentary. See BAINEBIDGE, supra note 3, at 128-30; Bainbridge, supra note 112, at 526-27; Gabaldon, supra note 13, at 1411 n.139; Halpern et al., supra note 4, at 119-20; Hansmann & Kraakman, supra note 4, at 1927 n.121; Millon, supra note 7, at 1378-80; Thompson, supra note 11, at 11. The case is also found in casebooks as well. See, e.g., WILLIAM A. KLEIN ET AL., BUSINESS ASSOCIATIONS: AGENCY, PARTNERSHIPS, AND CORPORATIONS 207 (6th ed. 2006).
169. The court, however, remanded the case to allow the plaintiff to amend his complaint under the alter ego theory of veil-piercing. Walkovszky v. Carlton, 223 N.E.2d 6, 10 (N.Y. 1966). Subsequently, the amended complaint was held to state a cause of action. Walkovszky
Asset segregation schemes are not so unusual.\textsuperscript{170} It is a common strategy to segregate risk.\textsuperscript{171} \textit{Walkovszky} was one of a series of New York cases addressing the problem of owners intentionally using limited liability to externalize tort costs.\textsuperscript{172} In \textit{Mull v. Colt Co.}, predating \textit{Walkovszky} by several years, the plaintiff Mull averred that the defendants incorporated over 100 taxi corporations, each with two taxis and the minimum $5000 in liability insurance required by New York law.\textsuperscript{173} The district court noted that the compelling motive of taxi companies to segregate assets “is the desire to evade paying the full amount of recoveries for personal injuries resulting from the negligent operation of these taxicabs.”\textsuperscript{174} Recognizing the problem as a conflict between the policies underlying torts and corporate law, the court characterized the basic problem as one of morality, fairness, and justice.\textsuperscript{175} It denied the defendants’ motion to dismiss and held that the complaint stated a claim under the veil-piercing doctrine.\textsuperscript{176}

These cases are disturbing. They show that regulation of solvency is more difficult at the end-points of accidents rather than at the start-point of the rule itself.\textsuperscript{177} Encapsulated in the simple fact pattern of taxi accidents is the larger problem of corporate groups and liability shielding strategies motivated by a desire to externalize cost to innocent victims.\textsuperscript{178} Limited liability should be based on
a good faith belief that the firm will be profitable and that limited liability will not be invoked. Not surprisingly, Walkovszky and Mull involved the doctrine of veil-piercing. The problem with veil-piercing is that it is notoriously unpredictable.

Another response to the problem is to suggest that the solution lies outside of corporate law. For instance, the Walkovszky court suggested that the problem was the inadequacy of the minimum insurance requirement, which is an issue for the legislature to fix. Just like the judicial application of veil-piercing, individualized legislative fixes to the problems posed by a multitude of industries are not a global panacea. Again, it may be better to address the problem at the locus of corporate law rather than address it at the various tentacles of accident law and industry regulation.

The concept of bonded limited liability would substantially deter asset shielding strategies, which is rent seeking from the rule of law. Suppose New York had a bonding requirement. For illustrative purpose, throughout this Article a bond amount of $2000 is used. Although the shareholder would still have the option to pursue his liability avoidance strategy, limited liability would not be a free put option to shareholders. It would have required in Walkovszky a total bond posting of $20,000, and in Mull $200,000. The insolvency of one taxi company would merely result in the forfeiture of a single $2000 bond. But the owner of these enterprises would have to commit substantial capital toward the good faith use of the corporate form. The opportunity cost of capital would constitute the premium for the put option inherent in the rule of limited liability. It is possible, and perhaps even probable, that had

179. See Ballantine, supra note 8 (discussing corporate good faith).
180. "Like lightning, it is rare, severe, and unprincipled." Easterbrook & Fischel, supra note 118, at 89; see Bainbridge, supra note 112, at 535 (observing that veil-piercing is "rare, unprincipled, and arbitrary").
182. State regulation of insurance coverage or capitalization levels would not be feasible to the states because no single coverage rule would be applicable to all firms, the information necessary to enforce the law would be difficult for regulators to obtain, and the magnitude of potential tort losses would change with new technological developments. Alexander, supra note 24, at 392; see Hansmann & Kraakman, supra note 4, at 1927.
183. "Rents are the returns to ownership and accrue when an agent owns a good that has a special characteristic which, through no effort of the agent, is valuable." Robin Cowan & Mario J. Rizzo, Fundamental Issues in the Justification of Profits, in PROFITS & MORALITY 1, 4 (Robin Cowan & Mario J. Rizzo eds., 1995).
there been bonded limited liability in New York, the defendants would not have partitioned their assets so thinly and the plaintiffs would not have had to rely on the unpredictability of veil-piercing. Bonding even small amounts can deter at the margin undesirable asset partitioning strategies that are nothing more than schemes to avoid liability.

Lastly, the idea of bonded liability creates an alternative source of compensation funded by shareholders. This calls into question its relationship to the doctrine of veil-piercing. The proposal of bonded limited liability should not be construed as a substitute for veil-piercing. The two should be mutually independent. Obviously, a claim should not be subject to double recovery and so recovery against a shareholder under veil-piercing should be credited against a claim on the fund. Veil-piercing is a judicial response to circumstances warranting recovery against shareholders. Like limited liability, veil-piercing has been the subject of scholarly dispute. A discussion of the doctrine is beyond the scope of this Article, except to note that an alternative source of compensation may have the effect of reducing veil-piercing claims. But the disincentive only goes insofar as tort claims. Courts pierce the veil more often in contract claims than in tort claims. Even with the existence of an alternative compensation source, veil-piercing would remain an important and viable concept.

C. Enterprise Liability and Risk Retention

If liability avoidance was the purpose of limited liability, the rule cannot be distinguished from the more extreme rule that corporations should be subject to no tort liability at all because only degrees separate the two. Society accepts liability avoidance as an unfortunate bad effect for lack of a better alternative. Given this

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184. Compare Millon, supra note 7 (advocating an expansion of veil-piercing), with Bainbridge, supra note 112 (advocating the abolishment of veil-piercing).
185. Thompson, supra note 59, at 1058. In his empirical study of 1600 veil-piercing cases, Thompson found that courts pierce the veil in approximately 31 percent of cases arising in tort (70 of 226), and 42 percent of cases arising in contract (327 of 779). Id.
186. But see supra note 133 (arguing that the right to redress under tort law has a constitutional foundation).
187. See supra Part I.D.
problem, two theories support the idea of bonded limited liability as a superior alternative to resigned acceptance of liability avoidance.

First, the theory of enterprise liability is well established in the judicial and scholarly literature. The doctrine of enterprise liability is closely associated with the intellectual foundation of product liability, as well as special tort doctrines like market share liability. But the principle of enterprise liability is broader: “enterprise liability expresses the maxim that those who profit from the imposition of risk should bear the costs of the accidents that are a price of their profits.” This thought encapsulates the loss distributive principle of social insurance and risk allocative principle of a market price system. With respect to the latter, by incorporating all costs of production, including accident costs, into the price of a firm’s outputs, enterprise liability is consistent with our commitment to free enterprise.

In tort doctrine, the “enterprise” is thought of in terms of product lines, defective products, and industry groups, and the liability of an individual firm is based on its participation in these clearly defined activities. But the principle—that business enterprise is better able to bear losses from its activities—need not be anchored to these

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191. Gregory C. Keating, The Theory of Enterprise Liability and Common Law Strict Liability, 54 VAND. L. REV. 1285, 1287 (2001); see also Priest, supra note 188, at 463 (“[T]he theory of enterprise liability[] provides in its simplest form that business enterprises ought to be responsible for losses resulting from products they introduce into commerce.” (footnote omitted)).

192. Calabresi, supra note 163, at 531.
distinctions. It can be applied to corporate law and the analysis of limited liability.

In the corporate law context, the “enterprise” must be defined. Corporate law scholars have primarily relied on enterprise liability to suggest that corporate groups act as a single enterprise. This Article conceptualizes “enterprise” in the broadest possible sense—the entirety of business enterprise. The universe of limited liability entities can be seen as an enterprise that benefits from the sovereign’s grant of limited liability. Because the rule precludes some liability as a matter of corporate law doctrine—just as, for example, the legal doctrine of causation precludes liability in latent injury tort cases but for the application of enterprise liability—the theory of enterprise liability can be more generally applied to limited liability entities. Of course, this single enterprise cannot be the basis for assigning individual liability to firms for torts unconnected to its activities. But the collective enterprise, which profits

193. The theory of enterprise liability originated outside of tort law, in the workmen’s compensation insurance statutes, and then migrated into tort law. Keating, supra note 191, at 1287.

194. See Bainbridge, supra note 112, at 528 (“Enterprise liability ought to be invoked whenever one is attempting to hold an entire corporate group liable, whether one is nominally dealing with [the] affiliated corporations or a parent and subsidiary.”); Berle, supra note 1, at 344 (proposing “enterprise liability” to impose liability on a parent for the risky activities of its subsidiaries); Dearborn, supra note 116, at 211 (“I only advocate for enterprise liability in the context of the parent-subsidiary relationship or within the corporate family—not for individual shareholders.”); Gabaldon, supra note 13, at 1455 (“As a theoretical matter, it would be fairly simple to accomplish a substitute[e] of concepts by implementing a plan of mandatory enterprise insurance.”); Stone, supra note 78, at 76 (“[T]he business corporation is most appropriately suited to the technique of enterprise liability.”); Thompson, supra note 11, at 40 (“The various arguments for limited liability do not have much impact in the parent-subsidiary situation.”).

195. “Enterprise liability provides a horizontal form of liability (i.e., it offers a vehicle for holding the entire business enterprise [corporate groups] liable).... If correctly (and successfully) invoked, enterprise liability does permit a creditor to reach the collective assets of all of the corporations making up the enterprise.” Bainbridge, supra note 112, at 526; see also supra note 191.

196. Cf. Bainbridge, supra note 112, at 530 (“The vagaries and inadequacies of veil piercing law carry over into full force to the enterprise liability context.”); Lynn M. LoPucki, The Eternal Structure of Judgment Proofing, 51 STAN. L. REV. 147, 158 (1998) (“The search for the boundaries of the `enterprise` will fail. It is an effort to distinguish the substance of the business organization from its form, but in substance there are no sharp boundaries among businesses.” (footnote omitted)).

from the blanket protection of limited liability, can assume more excess liability through a bonding requirement that has both individual cost assignments (forfeiture of bond) and enterprise-wide risk sharing and retention (capitalization of fund).

That each firm engages in different activities with different risks is not problematic. A perfect system of risk classification does not exist. Even in insurance, the “true” actuarial risk of a particular insured is unknown, and insurance depends on the law of large numbers in which many errors on individual risk assignments are aggregated. Any risk classification would be highly imperfect and costly. For example, two construction firms, each with fifty employees and competing in the same sector, cannot have the same risk, and their risks in fact may turn out to be lower than the risk of a five-person accounting firm. Without risk classification as a criterion for cost allocation, the potential cost bearers are the collective industry or the tort victims. As between these two groups, the enterprise is better able to bear the risk so long as the limit of liability is certain, that is, capped by limited liability, and each participant in the enterprise should be made to share a small portion of that risk. The potential misapplication of actual risk and cost assignment is a minor issue. Because the bond is small, there is no serious asset misallocation problem to construing the enterprise broadly. As Guido Calabresi observed, “there are too many minor misallocations for it to matter at all if we don’t have a perfect system for deciding what enterprise is exactly responsible for what injury.” If this cost does not perfectly match the risk with the precision of omniscience, we must ask whether the unfairness of imposing a small bonding requirement is outweighed by the societal benefit of compensating victims and the greater internalization of business risk.

Second, bonded limited liability is founded on the insurance principle of risk retention. A policy of cost internalization can be

198. Actuarial data is meaningless to the individual probability of any given event. Such an event has no probability as it occurs within the context of a unique set of facts and the relevant class of comparison is one. Insurance is only possible because the law of large numbers can be used to measure frequency with respect to a large group.

Rhee, supra note 94, at 643 n.108 (citation omitted); see also infra note 225.

199. Calabresi, supra note 163, at 515.
implemented through mandatory risk retention. If unlimited liability were the prevailing rule, shareholders could try to protect themselves through insurance.\textsuperscript{200} Insurance can take the form of bankruptcy insurance at the corporate level or portfolio insurance at the personal level. But such insurance would be economically infeasible.\textsuperscript{201} Three major factors limit insurability: premium loading, which reflects administrative and capital costs; moral hazards, which change the insured’s incentives and risk-taking behavior; and adverse selection, which results from information asymmetry between insurer and insured.\textsuperscript{202} Individualized assessment of risk would result in high information cost.\textsuperscript{203} The catastrophic nature of bankruptcy and portfolio insurance would impose high capital cost for insurers, and this cost would flow into premiums.\textsuperscript{204} Moral hazard may be a problem, particularly for smaller firms that are not subject to market surveillance and creditor monitoring.\textsuperscript{205} Lastly, without a mandate, there would probably be significant adverse selection problems.

The lack of a private insurance market would force investors to consider self-insurance.\textsuperscript{206} But the same problems of insurability would apply. The universe of firms would be unable to collectively negotiate a program structure due to collective action problems, objections to cross-subsidization, and the potential tendency for risk segregation. For it to work, an insurance program would have to involve a public-private hybrid form. A public mandate would mitigate the problems of adverse selection and information cost. This does not solve the problem of how much each firm should contribute in premium. Individualized assessment of risk would be just as difficult for self-insurers. Moreover, there would still be a problem

\textsuperscript{200} Additionally, the capital market may invent strategies to circumvent a rule of unlimited liability. Grundfest, supra note 63.

\textsuperscript{201} See Halpern et al., supra note 4, at 138 (arguing that a market for bankruptcy insurance would not exist); Hansmann & Kraakman, supra note 4, at 1901 (suggesting that the cost of portfolio insurance would be high).

\textsuperscript{202} Harrington & Niehaus, supra note 166, at 179.

\textsuperscript{203} See Halpern et al., supra note 4, at 139-40 (suggesting that insurers would have substantial surveillance costs).

\textsuperscript{204} See supra note 158; see also Vaughan & Vaughan, supra note 152, at 41 (stating that the ideal element of insurable risk is that the loss must not be catastrophic).

\textsuperscript{205} Halpern et al., supra note 4, at 140-41.

\textsuperscript{206} See id. at 128 (“In an unlimited liability regime the owners are self-insuring against the risk of default.”).
of catastrophic risk, namely the potential that liability would exceed the reserve.

To facilitate self-insurance, a public mandate would require a common charge, as typically found in group insurance, and would provide a limitation on catastrophic loss, in this case one limited to the fund’s capacity to pay. No principle of insurance suggests that a premium matches the “true” actuarial risk of a particular insured. Perfect information would paradoxically preclude an insurance market.207 Most policyholders do not claim the benefit of insurance, and thus they cover the cost of the unfortunate few. The following passage eloquently explains the insurance principle:

Insurance, therefore, takes from all a contribution; from those who will not need its aid, as well as from those who will; for it is as certain that some will not, as that some will. But as it is uncertain who will, and who will not, it demands this tribute from all to the uncertainty of fate. And it is precisely the moneys thus given away by some, and these only, which supply the fund out of which the misfortune of those whose bad luck it is that their moneys have not been thrown away, are repaired. The afflicted finds his money spent to some purpose; and only the fortunate part with it for nothing. From this point of view the whole beauty of the system of insurance is seen. It is from this point of view that it presents society a union for mutual aid, of the fortunate and unfortunate, where those only who need it receive aid, and those only who can afford it are put to expense.... By a system of mutual insurance thus generally established, embracing all callings, a great fund, as it were, for the benefit of society, would be created; a fund to which none could be said to contribute gratuitously, from which none but the needy should be aided; a great reserve fund, held in readiness for the uncertain case of want.208

This principle can be applied to the context of limited liability. Albeit corporations (shareholders) have the backstop of limited liability, most corporations do not need the legal protection. Just as

207. See Eljer Mfg., Inc. v. Liberty Mut. Ins. Co., 972 F.2d 805, 809 (7th Cir. 1992) (“Once a risk becomes a certainty—once the large loss occurs—insurance has no function.”).

it is impossible to know ex ante which policyholder will invoke the benefit of insurance, it is impossible to know ex ante which corporations will invoke the rule of limited liability. The unfortunate shareholder finds the rule a financial savior; the fortunate one has no need for salvation. In an uncertain world, bonded limited liability creates a risk retention arrangement akin to group self-insurance against excess liability, except that the beneficiaries are not the group members but are instead third-party tort creditors.

In a regime of unlimited liability, liability must go through a number of shields to reach shareholders: corporate liability insurance, corporate assets, and perhaps personal liability insurance. With respect to the last, we expect that the insurance industry would either exclude or charge an additional premium for coverage, and no coverage would be provided if liability were joint and several. To protect personal assets, the corporation could hold more equity capital on its balance sheet or purchase more insurance coverage. Both options may have obvious negative effects on corporate financing decisions. Ultimately, these measures may not sufficiently protect shareholders because a catastrophic liability, the type of liability leading to insolvency, may exceed the expected parameters.

Personal liability insurance may be an option, but it would be costly. The premium in private insurance not only includes the expected actuarial loss, but also the loading charge. The typical loading charge can be substantial, ranging from 10 percent to 50 percent of the premium.209 These amounts paid to private third-party insurers are recurring expenses. The other substantial component of the overall transaction cost is the cost of litigation, that is, litigation in excess of that needed to establish corporate liability. Both litigation and insurance costs are undesirable. In an unlimited personal liability regime, shareholders are in effect primary liability insurers to tort victims.210 Their purchase of private third-party insurance can be seen as a hedge against this policy, and can be analogized to the function of reinsurance.

A scheme of bonded limited liability eliminates the need for these costly transactions. The cost of administering a compensation

209. HARRINGTON & Niehaus, supra note 166, at 170.
210. Leebron, supra note 4, at 1588; see Halpern et al., supra note 4, at 128 ("In an unlimited personal liability regime the owners are self-insuring against the risk of default.").
scheme would be far lower than private insurance. Just as important, shareholders would not have a recurring cost of insurance. There is a one-time posting of a bond, and absent its forfeiture the shareholder’s true cost is the provision of a return-free capital to the fund. This scheme is possible because participation is mandatory and the bond amount is fixed. Adverse selection and moral hazard are not problems. Most of the cost of providing compensation piggybacks on the antecedent litigation process, which determines eligibility. Thus, a compensation fund is far cheaper and more cost efficient than a regime of unlimited liability against shareholders.

D. Potential Objections and Responses

There are several potential objections to the idea of bonded limited liability. Administrability and political feasibility, the most important considerations, are addressed separately in Part III. Other objections may concern the impact on corporate finance, the efficient use of capital, and the lack of individualized actuarial assessment.

1. Corporate Finance

One may object that bonding limited liability may adversely affect corporate finance. This is not the case. Unlike a rule of unlimited liability, bonded limited liability will have negligible effect on corporate finance. It preserves the certainty of limited liability. Because no additional uncertainty is injected into the investment decision, a bonding requirement does not affect the firm’s cost of equity. For each firm, the financial commitment is small and fixed. The sole cost would be the financing cost of this small sum.

For private firms, consider a one-time bond of $2000. A larger venture will find this sum trivial. A smaller venture may find this sum significant, but it certainly will not change business plans beyond the proverbial lemonade stand. Business interest groups may argue that when added to filing fees and franchise taxes, a bond would in fact become a financial burden on enterprise. Such an argument is hardly credible. Any firm that finds $2000 or other similar amount to be a significant cost barrier is a firm that is probably so small as to not require limited liability, is close to
failure, should be capitalized at far greater levels, should not expect excess liability, should not be the beneficiary of limited liability, or is a combination of any of these points. It is true that a bond is a financial commitment, but most businesses adequately handle many financial commitments and in far greater recurring amounts.

For public firms, the bond amount need not be a fixed dollar value: the pricing function of the capital market can be used to provide an individualized assessment that is still fixed as a percentage pegged to the market capitalization. The effect on the company’s stock price is similar to the effect of a dividend distribution. The stock will decrease by the amount of the fixed charge against equity. For illustrative purposes, consider a fixed percentage of 50 basis points of the average market capitalization of a defined period. This is a small amount to post as a bond. The annual dividend yields of many companies are far greater than this amount. Moreover, given the small amount relative to market capitalization, we do not expect the capital market to innovate financial instruments and strategies to avoid a call on the bond. It simply is not worth the transaction cost of executing an intricate liability avoidance strategy.

The superiority of bonded limited liability to unlimited liability can be seen if we analyze how stocks would compare under both schemes. Imagine a regime of status quo limited liability. The firm, Norne Inc., has two shares of common stock; it earns $102.55; share price is valued at twenty times price-to-earnings; thus, the market capitalization is $2051. Under a rule of unlimited liability, the cost of equity would surely increase. Assume that the firm’s valuation experiences a modest 5 percent multiple contraction from


212. For example, consider the following average 5-year dividend yields for these companies: Johnson & Johnson (2.3%), General Electric (3.6%), Wal-Mart (1.5%), Walt Disney (1.0%), McDonald’s (2.2%). See Yahoo! Finance, http://finance.yahoo.com (type company name in the “Get Quotes” search to access information on each company) (last visited on Oct. 27, 2009).

213. See supra note 63 and accompanying text (arguing that Hansmann and Kraakman’s proposal of personal liability would elicit capital market strategies that would synthetically create liability avoidance strategies).

214. If the earnings were perpetual, this would imply a capitalization rate of 5.0 percent, calculated as: $102.55 ÷ $2051 = 0.05.

215. See supra text accompanying note 86.
twenty times to nineteen times earnings, implying a market cap of $1949, or a loss of $102 in equity value. With these valutational parameters in mind, assume now that the law changes the liability regime. Firms are allowed to issue limited liability shares so long as they are bonded; otherwise shares come with personal liability.

In response, the company splits its equity capital into the two regimes. Norne reclassifies its two shares into two classes of common stock with equal economic benefits except for the liability rule. The N class is the “no liability” stock, and the L class is the “personal liability” stock. Because nothing has changed with the N class, it is valued at half of the market capitalization based on a valuation of twenty times earnings, $1026 without adjustment for the bond. The L class is valued at $974, half of the market capitalization based on a valuation of nineteen times earnings. The combined market capitalization is $2000 without a deduction for the bond. The bond posted equals fifty basis points of the market capitalization, here $10. This sum deducts from the value of the N class because this class benefits from the bond and claims it upon dissolution. Compare the cost of fifty basis points ($10) for the N class with a modest increase in the cost of equity with a 5 percent decline in the share price ($51) for the L class. There is a five-fold difference in the cost between bonded limited liability and unlimited liability, not considering the fact that the bond is redeemable, whereas the increase in the cost of equity results in lost equity value. As long as the amount of the bond principal is lower than the lost equity value from an increase in the cost of equity, bonded limited liability is less onerous on companies than a rule of pro rata unlimited liability.

The true economic cost of bonded limited liability is simply a funding cost, that is, the opportunity cost of capital used to fund the bond. For example, assume a bond amount of $2000, the average life of a firm is 10 years, and the cost of capital is 12 percent. There is

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216. If the earnings were perpetual, this would imply a capitalization rate of 5.26 percent, calculated as: $102.55 ÷ $1949 = 0.0526. This constitutes an approximate 5 percent increase in the cost of capital.

217. Calculated as: $(102.55 ÷ 2) \times 20 = 1025.64$

218. Calculated as: $(102.55 ÷ 2) \times 19 = 974.36$

219. If the company finances this amount with debt, the resulting loss in value would be the capitalized value of the after-tax interest expense. Thus, the tax shield subsidizes some of the cost of bonding.
always a probability of insolvency and excess liability and so there is an expected value of redemption, but the forfeit of principal is simply the payment of compensation from a reserved corporate asset. To calculate the opportunity cost of capital only, we assume full redemption of the bond in 10 years. The present value of the redemption is $644.\(^2\) The true cost of bonding to the firm is $1356. This foregone return on capital is the premium charged for the put option embedded in the rule of limited liability (which shareholders otherwise receive gratis). This is relatively small, and therefore the funding cost would be minimally burdensome.

2. Efficiency of Capital

One may object that a mandate to capitalize a compensation fund would inefficiently use capital. As discussed in Part III.A., the fund must be invested conservatively in a manner similar to the way endowments and unearned insurance premium are invested. This protects the principal and ensures fund sustainability. Accordingly, the yield on such investment strategy would be low. Assume that the target return is 6 percent, just above the risk-free rate on a portfolio of mostly fixed income securities, and that the opportunity cost of capital for the average firm is the longterm return on the equity market of approximately 12 percent.\(^2\) The opportunity cost is 6 percent.

If viewed from a limited comparison of pure returns on capital, this yield differential between fixed income and equity securities is inefficient. However, the perceived opportunity cost does not capture a number of benefits. The opportunity cost cannot be limited to just a comparison of investment returns. Two effects of bonded limited liability must be considered in an analysis of efficiency. First, we must consider the gain resulting from the deterrence of liability avoidance schemes at the margin, for example, cases like Walkovszky and Mull. Second, we must also consider the reduction of secondary costs on society that must be incurred if tort victims are not fully compensated. These costs include social benefits from

\(^2\) Calculated as: $2000 ÷ (1 + 12%)^{10} = $644.

\(^2\) Brealey ET AL., supra note 211, at 149 (calculating 11.7 percent return from 1900 to 2003).
the state, other benefits provided by family and informal social networks, and lost opportunities resulting from a lack of full compensation. When the benefits of cost internalization and compensation are added to the return from the compensation fund, the actual yield differential must narrow, perhaps to a point where the yield leakage is insignificant.

To the extent that there remains a minor differential, it can be justified as a tradeoff between efficiency and equity. Equity is a normative value. Why settle for a hypothetical delivery of compensation when actual delivery is possible at a small cost? It is worth a minor cost to harmonize the animating principles of corporate law and tort law. This benefit cannot be discounted.

3. Actuarial Risk

One may object that the bond amount does not reflect individualized risk assessment. Because the bond amount is fixed, low risk firms could be deemed to cross-subsidize high risk firms. This subsidization would not pose a moral hazard because the bond does not insure against the firm’s liabilities. The bond is bankruptcy neutral. But the subsidization could be deemed unfair. Why should a five-employee nail salon post the same amount as a fifty-employee construction firm?

The answer is simple. There is no system for perfect cost allocation in the real world, and individualized assessment would be practically infeasible. Even if such assessment was possible, the information cost would be high. Risk classification across a myriad of industries, businesses, and circumstances would be exceedingly difficult and ultimately illusory. The criticism would

222. See Okun, supra note 142, at 88 (“Frequently, society is obligated to trade between efficiency and equality.”).
224. Cf. Calabresi, supra note 163, at 533-34 (“If the costs of administering enterprise liability prove exorbitant ... it will be difficult to make out a case for enterprise liability on resource-allocation grounds.”).
225. For practical purposes a large component of most individuals’ and enterprises’ actual losses must be considered to occur by chance. Such random losses are either impossible to predict at all given current knowledge or too costly to predict. This is especially true of the severity of losses, as distinguished from the frequency of losses, that may occur. Even very refined risk classification systems consequently predict only imperfectly.
have more force if the face value of the bond amount constitutes a charge, but the bond is not a tax or fee inuring to the state, or an insurance premium providing risk transfer benefits to the firm. It is a return-free capital for the life of the firm and is redeemable by the obligor. The true cost of a bond is the opportunity cost of capital, which would be far smaller for the entity with an average duration of life.\textsuperscript{226} The degree of unfairness, if any, is outweighed by the high cost of individualized assessment, which could be used to compensate victims instead of finely calibrating a bond price, a function that is illusive at best.\textsuperscript{227}

In the private insurance market, risk classifications and cost-based pricing of insurance are used to combat the problem of adverse selection.\textsuperscript{228} Adverse selection in insurance is the tendency of high risk individuals to buy more insurance than some other person. By using risk classifications, the industry conducts a cost-benefit analysis: adverse selection is obviously costly, but information cost reduces the economic advantage of risk classification.\textsuperscript{229} Adverse selection is not a problem here. Bonded limited liability is not a scheme of liability insurance that benefits the firm; it does not provide bankruptcy protection. Rather, it mitigates harmful third-party effects of insolvency by compensating a tort victim’s claim in whole or in part.

The argument for risk classification is not an economic one but is principally one of fairness. The potential magnitude of misapplication of assets among bond obligors is small. More importantly, the fairness argument is not just between bond obligors, but rather the principal issue of fairness is between tortfeasors and tort victims.
All things considered, the argument for a mandatory, fixed bond amount is compelling.

E. Efficiency Assessed

To conclude Part II, we take stock of the tradeoff between efficiency and equity. Bonding limited liability would clearly advance equity, and it leaves intact the entire benefit of limited liability. The question is whether there is a tradeoff in efficiency, and if so the magnitude of the tradeoff.230 We must account for the debits and credits of the costs and benefits of bonding limited liability. On the “benefit” ledger, there are two benefits gained: deterrence of liability avoidance schemes and more cost internalization, and reduction of the secondary costs of torts. These additional benefits are not gotten for free. A transfer of surplus from shareholder to tort creditor has two costs: the cost of administration, and opportunity cost of capital.231 The most important consideration is that the cost of administration is minor.

On the whole, then, the cost-benefit seems approximately neutral. There are some benefits and some costs, none of which clearly tips the balance. Therefore, bonding limited liability is approximately neutral as to efficiency, but it clearly promotes equity. This middle ground of financing compensation is better than the absolutist views in the debate on limited liability.

III. ADMINISTRATION AND FEASIBILITY

A. Sustainability of Fund

A fund should be sustainable. Sustainability is achieved by protecting the principal and investing assets conservatively. Since most firms, even public companies, do not exist in perpetuity,232 the aggregate face value constitutes a liability of the fund that ulti-
mately must be returned upon redemption. The rate of dissolutions and new filings determine the size of the fund face value, and because new filings generally exceed dissolutions we expect that the fund would grow in size.\textsuperscript{233} This may lead to the temptation for a pay-as-you-go financing similar to the management of Social Security.\textsuperscript{234} This would be unwise. Sound fiscal management mandates a full funding philosophy, in which current assets are matched to current liabilities. The bond principal constitutes a liability running to the bond obligor, and it should not be subject to compensation payout absent its forfeiture through excess liability. Since the number and amounts of claims cannot be controlled, a fund is sustainable only if liability is capped by the investment income (the surplus). States should set the minimum statutory fund balance at the principal, below which compensation cannot be provided.

Compensation is limited to the surplus. With mandatory participation, the surplus should be able to pay most excess tort liability. For example, as seen in Subsection C below, if California, Delaware, and New York instituted a scheme of bonded limited liability in 2008, these states would have had a surplus of approximately $440 million available to compensate tort victims for excess liability for that year alone. Whether bonded limited liability fully internalizes risk is an empirical question, the answer to which depends on a number of variables such as the rate and amount of claims, the bond amount set by legislatures, investment returns, and the number of contributing bond obligors.\textsuperscript{235}

A major caveat is the problem of mass torts. They pose a challenge from the standpoint of judicial administration and society’s capacity to compensate.\textsuperscript{236} The scope and scale of many mass torts

\textsuperscript{233} See supra note 131 & tbl.1.

\textsuperscript{234} See Harrington & Niehaus, supra note 166, at 422-23 (discussing pay-as-you-go financing); Skipper & Kwon, supra note 228, at 204 (comparing fully-funded and pay-as-you-go approaches).

\textsuperscript{235} “Since we lack the ‘control set’ of an industrialized regime without limited liability, the extent of the overinvestment in this type of excessively risky activity remains an empirical question that is difficult to answer precisely.” Mendelson, supra note 6, at 1239.

frequently lead to bankruptcy. Veil-piercing is typically not an available option because firms capable of mass torts, typically mass manufacturing or consumer product subsidiaries of larger companies, do not fit the profile of a pierced company. Parent companies often isolate risky activities with subsidiaries to partition bankruptcy risk.

If bonded limited liability is established across many jurisdictions, the spreading of risk and loss is even greater. Mass tort victims need not claim against the happenstance of the specific bankruptcy plan. In this respect, the problem of mass torts is ameliorated somewhat.

However, this Article does not assert a panacea to the social problem of mass torts. Quite the opposite is true. Mass torts pose a special challenge to the administration, feasibility, and sustainability of a scheme of bonded limited liability. The compensation demands of many mass torts may exceed the available surpluses, even if many funds are pooled through multijurisdictional claiming processes. A mass tort can potentially swallow the compensation capacity. Even with the protection of minimum statutory fund balances, mass tort claims can create a backlog of compensation that may take many years to clear, if ever. If an indefinite compensation queue is permitted, a question is raised whether a fund reduces to a supplementary compensation scheme for mass tort victims to the exclusion of other tort victims. In this respect, there is no reason why mass tort victims should be entitled to special consideration qua other victims. Thus, considerations of sustainability and administration require a scheme of priority and limitation periods that place restrictions on claim eligibility. These issues are discussed in the next Section.

B. Mechanics of Administration

The creation and administration of a compensation fund must be feasible and cost effective. There is no underwriting because the
amount is fixed. There is no adjustment of the claim because the antecedent tort litigation already determined the liability. The task of collection, maintenance, and disbursement are ministerial. An important detail is that bankruptcy remoteness should be achieved. There should be no basis for other creditors to claim the bond or the fund. As for tort creditors, their claims in bankruptcy should affect the administration of the fund only insofar as they should not be allowed to receive monies in excess of being made whole.

Practical questions of administration concern collection method, bond amount, fund balance maintenance, claimant eligibility, limitation periods, fund disbursement, and bond redemption. It is important to bear in mind that the universe of corporations neatly divides into private and public companies, which in operating reality are as different as stars and planets.238 This suggests that there should be different approaches.

1. Bond Amount and Collection

Private companies do not have publicly traded shares and thus their firm value is less transparent and far more difficult to ascertain. A variable bond assessment based on value is difficult to implement and quite costly. A state could assess the bond based on book value, but for many small companies this scheme could lead to, at the margin, the foreseeable moral hazard of manipulated undercapitalization. A fixed sum is best. The amount should be substantial, but not so much that it deters even small businesses. For example, a one-time $100 bond is a trivial amount. On the other hand, a $10,000 bond would probably deter many legitimate small businesses. With this range in mind, consider for illustrative purpose a scheme in which a state could charge a bond of $2000. As shown later in this Article, the aggregation amount capitalizes a sizable compensation fund.

This bond value does not deter legitimate businesses, even the small ones, from engaging in the enterprise. The effect of the cost should be minimal, perhaps not even matching the one-time cost of a lawyer or some other vendor on a small matter. Such a sum could

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238. See Manne, supra note 49, at 259 (“[I]t is not one but two theories that are missing, one for large, publicly-traded companies and one for small, closely held ones.”).
be in the range of a regular monthly utility bill, employee wage, or insurance premium. If the business is insubstantial such that a small $2000 charge is a cost barrier to incorporation, one must question whether such business merits the benefit of limited liability.

Unlike private corporations, the value of public corporations is more accessible and transparent. For instance, as of December 31, 2008, the New York Stock Exchange listed 2447 public companies with a total global market capitalization of $15 trillion. A variable charge scheme is feasible. As with private companies, the charge should be substantial, but not so much as to deter the engagement of enterprise. For illustrative purposes, a 50 basis point (one half of a percent) charge against this value creates a compensation pool of $75 billion, or about 120 percent of the market capitalization of Enron before its collapse. Such a large sum covers excess liability for most situations. This is a large sum, but it must be put in context. An individual shareholder who has invested a sum of $100,000 in “new money” in the market contributes $500 toward the compensation pool. A half-percent charge is substantial, but hardly a deterrence against an investment in the market (indeed such sums are routinely and repeatedly paid in the form of administration and transaction costs involving brokers and investment advisers).

The bond amount can be “marked-to-market” based on the public valuations. The pricing mechanism of the capital market can be used to assess bond obligations, and thus the cost of individualized underwriting is nil. For example, consider this simple rule: a company must post an amount that is a 50 basis point of the year’s average market capitalization. If stock value subsequently increases, a company must bring the statutory bond amount up to the fixed 50 basis point rate. Since a bond is not a recurring fixed obligation, “old money” for the most part recycles in the market.

239. See supra note 166 and accompanying text.
240. NYSE Euronext, Annual Report (Form 10-K), at 1 (Feb. 27, 2009).
241. As of December 31, 2000, Enron had a market capitalization of $62.5 billion. It had a stock price of $83.125 per share and 752,205,000 shares outstanding. Enron, Annual Report 1, 35 (2000).
Several corporate law scholars have suggested that enterprise liability should apply to corporate groups. See Bainbridge, supra note 112, at 529 (“Yet, from a policy perspective, the considerations justifying limited liability insofar as individual shareholders are concerned seem far less powerful when applied to corporate shareholders.”); supra note 188 and accompanying text.

243. Several corporate law scholars have suggested that enterprise liability should apply to corporate groups. See Bainbridge, supra note 112, at 529 (“Yet, from a policy perspective, the considerations justifying limited liability insofar as individual shareholders are concerned seem far less powerful when applied to corporate shareholders.”); supra note 188 and accompanying text.
Because public companies are audited and the financial statements of subsidiaries are consolidated with the parents, one convenient way to deal with the problem is to allocate the bond amount based on book value. Even this simple rule, however, gets complicated for large corporations with complex, multi-layer corporate group structures. Allocation down to the lowest subsidiary level may be akin to slicing potato chips, not worth the effort. There may be issues pertaining to minority interests, joint ventures, interests in partnerships, and so forth. One way to deal with these myriad issues is to limit the allocation down to a specified level of ownership from the holding company. An insolvency of a subsidiary below this level results in a forfeiture of the allocated bond amount at that level. Gaming is unlikely because reconfiguring corporate structure, which presumably is based on important economic and business reasons, to game a 50 basis point bond allocation at minute levels would not be worth the effort. The financial stake of bonding is not the same as that of, say, the tax code. There may be other allocation schemes that work as well. The most important consideration is that the allocation rules cannot be so complex as to impose significant administrative costs.

3. Claimant Eligibility and Priority

Simple rules for claim eligibility and payment are needed. Fortunately, most of the cost piggybacks on the civil litigation system. Only tort plaintiffs who prevailed on the merits should be allowed to claim against the fund. If plaintiffs are allowed to recover based on civil actions or settlement demands filed after bankruptcy or dissolution, there is a moral hazard, if not outright fraud. A plaintiff should be eligible only if the action was filed before insolvency. Because the fund is created to compensate victims, punitive damages should not be claimable.

Collusion between a tort claimant and shareholder is conceivable. Most cases settle.\(^\text{244}\) The tort creditor is not a voluntary participant within the “nexus of contracts,” but a settlement constitutes an ex

\(^{244}\) See Rhee, supra note 94, at 622 n.7.
post contractual bargain on the allocation of corporate assets and cash flow. If a tort action is meritorious and there is a distinct possibility of veil-piercing, the parties may settle the claim to avoid litigation on veil-piercing. The shareholder dissolves the firm and hands over the corporate assets, and the plaintiff claims the unpaid settlement balance against the fund. The fund becomes a less costly substitute for veil-piercing. This is undesirable as veil-piercing serves a legitimate judicial function of monitoring the use and abuse of limited liability. Therefore, a requirement of eligibility is a favorable judgment on the merit.

Compensation should be disbursed upon certification that: (1) the plaintiff received a final judgment, (2) corporate assets could not satisfy judgment, and (3) the plaintiff could not recover in bankruptcy or the defendant firm was dissolved without recourse. It may be advisable that a court provide such certification.

4. Limitation Periods

An important aspect of managing a fund is to preclude frivolous, fraudulent, or collusive claims. The best solution is to install limitation periods on claiming. There should be three limitation periods: a time limitation on the filing of a tort action relative to the firm's insolvency, and front-end and back-end limitation periods.

An insolvent firm may attract parasitic lawsuits because a bankrupt company, particularly one in liquidation, may have less incentive to defend against these claims. A condition on claim eligibility remedies this potential problem. A claim against the fund should be allowed only if an action was filed prior to insolvency. This filing rule penalizes unfiled tort claims, but this may be the price of deterring fraud, abuse, and collusion. From a policy per-

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245. This does not mean that settlement has no effect on tort law. Settlements have systematic effects based on the bargaining disparities between corporate defendants and individual plaintiffs. See Rhee, supra note 46, at 163-64.

246. This requirement would also make ineligible many, if not most, mass tort claims, which are settled rather than litigated. See Smith, supra note 236, at 1631 (“Because traditional litigation is not a practical option for resolving many mass tort claims, companies often have no choice but to settle claims on a mass basis.”). See generally Richard A. Nagareda, Mass Torts in a World of Settlement (2007) (discussing mass tort law suits and settlements).
The arbitrariness of this rule is not any greater than the arbitrariness of a statute of limitation in general.

The front-end limitation period is the period between final judgment in the tort action and presentment of certification, or claiming on the fund. In the insurance context, a long-tail liability poses problems. Similarly, the fund should not be subject to a long-tail liability. A front-end limitation period reduces uncertainty for both the fund administrator and other claimants.

The back-end limitation period is the period between claiming on the fund and the expiration date upon which the claim expires, if the fund is not adequate to pay the claim. There is the distinct possibility that the fund may be unable to pay a claim because it lacks surplus. Most liabilities should be compensable, but in the case of mass torts the liability may far exceed the ability of the fund to pay. Recall that the bond principal is a liability of the fund to the firm, and thus must be protected. Compensation is paid from surplus. Without present ability to pay, an unpaid claim may continue to accrue along with a long backlog of claims. This is undesirable. Thus, the back-end limitation period terminates claims upon the passage of a limitation period. This is not ideal and leads to noncompensation, but this provision is probably necessary for sustainability. Figure 1 schematizes the limitation periods on claim filing and payment.

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247. SKIPPER & KWON, supra note 228, at 579 (“The long-tail liability lines—those whose payments may extend over many years—are especially difficult from a pricing and reserving perspective.”); see, e.g., Owens-Illinois, Inc. v. United Ins. Co., 650 A.2d 974, 980-85 (N.J. 1994) (discussing the problem of determining the trigger of coverage of liability insurance for asbestos claims).

248. See Alexander, supra note 24, at 421-24 (discussing mass torts).
5. Disbursement, Forfeiture, and Redemption

Upon presentment of a claim and certification, priority should be given to claimants based on the order of claim presentment. If the minimum fund balance is reached before full compensation, a state can take different approaches to the remaining uncompensated amount. The balance can be deemed unrecoverable, it can remain outstanding until such time the fund can pay it, or it can remain outstanding up to a back-end limitation period. Because a backlog of outstanding claims is not desirable, the better option may be to deem the receipt of partial payment as a waiver of the remaining balance.

Upon insolvency, the bond is forfeited. It is redeemable only upon dissolution without an unmet liability claim. When a corporation ceases to exist and there is successor liability, the bond can be returned immediately. If there is not, the bond is not refundable to shareholders until the limitation period expires.

C. Political Challenges and Feasibility

Limited liability cannot be seen purely from the viewpoint of legal and economic policy. Corporate law is as much a product of political calculation as it is a product of legal and economic deliberation. Politics is the reason why limited liability will not be
abolished. \textsuperscript{251} Society has come to accept that the cost-benefit analysis probably favors limited liability, and the political process has come to reflect this view. \textsuperscript{252} States compete for corporate law, and they will not competitively disadvantage themselves by eliminating an otherwise good rule of law. \textsuperscript{253} In this sense, the maintenance of limited liability reflects a “race to the top” through state competition. \textsuperscript{254} We must consider whether the creation of a compensation fund is politically feasible. This Article posits that it is, though any scholarly proposal, however good or bad, must acknowledge the steep challenges of implementation.

Bonded limited liability leaves intact the rule of limited liability. It is only a financial proposal that changes the rule’s economics. States routinely impose financial burdens on entities through filing fees and franchise taxes. \textsuperscript{255} Enterprise law is a state produced and marketed product, \textsuperscript{256} and states compete for tax and fee revenue opportunities. \textsuperscript{257} Despite the powerful influence of managerial and shareholder interest groups, there is a tangible reason why states may wish to implement bonded limited liability, and it is the same reason why states engage in the competition for corporate law—money.
Consider the potential size of a fund available to compensate victims injured by private limited liability entities. Assume the following: the vast majority of companies are private firms, states require private firms to post a modest $2000 bond on limited liability, and earnings on the principal are conservatively estimated at 6 percent. With the number of active corporations and LLCs for California, Delaware, and New York at the end of calendar year 2008, the following pro forma financials are generated.

Table 2

<table>
<thead>
<tr>
<th>Corps.</th>
<th>LLCs</th>
<th>Face Value</th>
<th>Annual Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>884,539 + 412,672</td>
<td>2,594,422,000</td>
<td>155,665,320</td>
</tr>
<tr>
<td>Delaware</td>
<td>287,329 + 501,670</td>
<td>1,577,998,000</td>
<td>94,679,880</td>
</tr>
<tr>
<td>New York</td>
<td>1,190,422 + 369,888</td>
<td>3,120,620,000</td>
<td>187,237,200</td>
</tr>
</tbody>
</table>

Although the financial burden on each company is relatively light, the face value of the fund would be sizable. The three states collectively would control approximately $7.3 billion. The combined annual surplus would be approximately $438 million from which compensation could be paid. If the surplus is not paid out, the retained surplus also would earn income in the following years. We do not know whether these surplus amounts would meet all excess liabilities in these states. But these amounts would contribute substantially toward full compensation.

The benefits to states are apparent. First, and most importantly, justice is promoted when tort victims are compensated for their loss. There is a collateral economic benefit to states in that compensation reduces the secondary cost of torts, the need for government funds, and other social networks to support injured individuals.

258. There are only several thousand public companies listed in the stock exchanges. See New York Stock Exchange Listings Directory, http://www.nyse.com/about/listed/ls_ny_overview.html (last visited Feb. 10, 2010).
259. See supra note 131 & tbl.1.
260. See supra tbl.2.
261. See CALABRESI, supra note 147, at 24-26.
Second, states would have a selfish financial motive. The net filings (new filings minus dissolutions) are generally positive, at least in the states in Table 2, as we expect in a national economy with a longterm stable growth rate. Absent a sustained decline in the number of active firms, the principal amount would only increase. States compete for corporate law business for money. A state with a compensation fund would have permanent access to the fund as a part of the state’s working capital. Of course, the state must assume the fund obligation, including payouts to tort victims and bond redemptions by dissolving firms, as well as minimum guarantees of earnings equivalent to a conservative market return.

These benefits may be overstated if some firms choose not to file or dissolve rather than post a bond. But the dropout rate probably would be small. Active entities are subject to recurring fees and franchise taxes whose collective costs exceed the funding cost of a bond. If cost were an issue for a business, recurring expenses would have already resulted in dissolution. Moreover, certain businesses are required routinely to post bonds such as construction bonds or bonds required by the state to engage in certain regulated businesses. Small financial obligations are routine for any business beyond the neighborhood lemonade stand.

A significant concern is a “race to the bottom,” or more precisely a race to zero. The implementation of bonded limited liability could be seen as a competitive disadvantage for states seeking to attract and keep businesses. This is a prisoner’s dilemma. A concerted action among the states results in a benefit to all, but each state may be tempted to do otherwise. Bonded limited liability, however, is still feasible because—as discussed above—the benefits to victims and states are so tangible. The difficulties of implementing a

262. See id. at 26-31.

263. See Cary, supra note 253, at 664-65 (arguing that Delaware competed for corporate law business for revenue generation); Roe, Delaware’s Competition, supra note 250, at 594 (“Revenues from the corporate franchise tax are fifteen to twenty percent of ... [Delaware’s] budget, amounting to several hundred million dollars annually.”).

264. See supra note 157 and accompanying text.


266. See supra note 157 and accompanying text.

267. See supra notes 257-58 and accompanying text.
scheme are not impossible to overcome. There are several potential strategies.

First, the most expedient solution is a federal mandate, which could be an instant, tidy solution to the problems of collective action and prisoner’s dilemma. For public companies, it is obvious that bonding limited liability is implausible without a federal mandate.268 The federal government can displace state corporate law as it is Delaware’s principal competitor.269 But the practical reality is much more difficult.270 Federal legislation is not created so easily. While the interest groups for state corporate law are primarily managers and shareholders,271 federal legislation requires concentrated effort by interest groups representing tort victims.272 Unlike the corporate and business lobbies, this group is diffuse and lacks political clout to effectuate legislation.273

The Sarbanes-Oxley Act provides a lesson.274 The statute was enacted in response to the systemic failures of corporate governance in the 1990s, culminating in the accounting scandals of Enron and WorldCom, which prompted a public outcry against corporate corruption.275 The statute is proof of the potential for federal corporate law but also shows that a compelling event may be needed.276 For example, although the Exxon Valdez was owned and operated by a subsidiary of the parent, Exxon did not invoke limited liability to contest liability for legitimate fear of a public relations disaster.277 Suppose, however, Exxon chose to invoke the rule and

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268. Cf. Alexander, supra note 24, at 435 (“[T]he only plausible way to proceed is through federal law.”); Hansmann & Kraakman, supra note 100, at 447 (“We quite agree with Professor Alexander that implementing unlimited liability through federal legislation is the preferable course.”).
269. Roe, Delaware’s Competition, supra note 250, at 604.
271. Roe, Delaware’s Politics, supra note 250, at 2500.
272. Hansmann and Kraakman later explained that their proposal for unlimited liability has not been adopted because “neither markets nor politics works well to represent the interests of the persons who bear the direct costs of the rule, namely tort victims.” Hansmann & Kraakman, supra note 100, at 466-67.
273. Id.
275. Roe, Delaware’s Competition, supra note 250, at 623, 633; Roe, Delaware’s Politics, supra note 250, at 2529.
escaped liability. It is conceivable that public outrage and a concentrated interest group of tort victims in Alaska could have instigated federal corporate law reform measures. Occasionally, events of this scale occur. In the immediate aftermath of the September 11 terrorist attacks, the insurance industry did not invoke the war loss exclusion in all-risk insurance policies and chose instead to accept multi-billion dollar losses for fear of a public backlash and a potentially adverse governmental response in a time of national emergency. Another example, the current financial crisis is a compelling event. The only silver lining in this crisis seems to be that there is not a critical mass of excess tort liability. The general consensus is that the crisis was brought about by excessive risk-taking by financial institutions, improper regulation of financial institutions, and systemic risk, and the legislative response probably will address these matters. Shareholders and creditors were the largest class of immediate victims (obviously society at large is ultimately the biggest loser). Thus, it seems clear that the enactment of bonded limited liability for public companies requires a conscious-raising event like a mass tort and liability avoidance by a company to galvanize political action. Until then the idea as applied to public companies may remain dormant in the political arena.

Or perhaps the idea may find an indirect route to federal enactment. Another scenario for a plausible path is when the federal government follows the lead of prominent states that have enacted

278. This incident shows the benefits of bonded limited liability for public companies. Suppose Exxon did not pay and relied on its legal protection. Exxon would have forfeited its portion of the bond based on allocation rules. The tort victims in Alaska would have been able to tap the compensation fund for excess liability.

279. See Rhee, supra note 158, at 448 (“An industry-wide denial of claims, even if colorable, would have resulted in a backlash that ultimately would have extracted legal, political, and reputational costs far greater than the insurance losses.”).


a scheme of bonded limited liability. The federal-state relationship in the area of corporate law is symbiotic.\textsuperscript{283} Sometimes the lead of states like Delaware gives Congress cover to act or not act.\textsuperscript{284} Ultimately, absent a confluence of factors making the possibility of congressional legislation more probable, bonded limited liability as to public companies is more difficult to implement than a scheme for private companies in the individual states.

Second, important corporate law states, such as California, Delaware, or New York, could take the lead and implement a scheme of bonded limited liability as to private companies. The imposition of a bond could deter some businesses from filing and maintaining their incorporation in the state. This may be the case for some, particularly the small businesses in the scale of sole proprietorships or simple partnerships, and only if a decision to file outside of one’s principal state of business is not “sticky.” For other businesses, however, the choice of forum may involve more factors than simply a minimally burdensome financial requirement. Certain states, such as Delaware, have developed well-earned reputations for expertise in corporate law, and the law of the particular state and expertise of courts may drive the decision to file.\textsuperscript{285} With the exception of filings in Delaware and public corporation filings,\textsuperscript{286} state filings probably are highly correlated to the principal place of business.\textsuperscript{287} The loss of filing business may be minimal. Even with the loss of some filing business, states may calculate that the financial benefits and the promotion of corrective justice for tort victims in the state outweigh an incremental loss of filing business.

Third, states can institute defensive measures to protect their competitive standing and citizens. It is obvious that a state can impose on a foreign firm a bonding requirement to conduct business

\textsuperscript{283} Roe, Delaware's Politics, supra note 250, at 2594.
\textsuperscript{284} Id., at 2535.
\textsuperscript{286} See Alva, supra note 285, at 886-90.
\textsuperscript{287} See Larry E. Ribstein, Business Associations 2-46 (1983) (providing factors to consider when choosing the state of corporation).
Presumably, as a matter of comity and historical deference to the internal affairs doctrine, the state should waive such a requirement if limited liability is bonded in the state of charter. Suppose, however, a foreign firm has not posted a bond, it commits a tort in the state, and the question is whether its laws as to limited liability should apply. A modification of the internal affairs doctrine could be used as a further defensive measure. If a foreign firm has not bonded limited liability because the state of charter does not require it, the foreign state can mandate bonding or otherwise not afford the protection of limited liability in its courts as to activities primarily engaged in the state or affecting state residents. Practically, this means that the businesses that reside in its state are bonded in the state irrespective of the state of charter.

For large commercially important states such as New York or California, this defensive measure would be effective against significant loss of in-state business. Such states can trigger a “race to the top” in that other states would not want to lose the proceeds from bonding for firms that choose to charter in them. If each state enacts such a defensive provision, every other state would have an incentive to enact a fund. This is not a new concept. California and New York already have modified the internal affairs doctrine and regulate foreign corporations conducting business in their states, and the Restatement (Second) of Conflict of Laws has adopted the California position on modification of the internal affairs doctrine.

288. E.g., NEB. REV. STAT. ANN. § 8-2309 (West 2008) (requiring a bond for an out-of-state trust company with an in-state branch trust office); N.J. STAT. ANN. § 17:9A-317 (West 2009) (requiring a foreign bank to furnish a bond in certain circumstances before qualifying to act in a fiduciary capacity); W. VA. CODE ANN. § 11-16-10 (West 2009) (requiring a foreign brewery to obtain a bond before being authorized to conduct business).

289. See, e.g., CAL. CORP. CODE § 17450(a) (West 2006) (same for foreign limited liability companies); DEL. CODE ANN. tit. 6, § 18-901 (West 2009) (same); MASS. GEN. LAWS ANN. ch. 108A, § 47(6) (West 1999) (establishing that limited liability of foreign limited liability partnerships is governed by the state of registration).

290. It is beyond the scope of this Article to discuss potential constitutional issues affecting the ability of firms to operate in foreign jurisdiction, if indeed there are any.

for foreign corporations. 292 Some may argue that a modification of the internal affairs doctrine would be extreme, but this argument is unpersuasive. As Mark Roe suggests, “the internal affairs ‘doctrine’ is just an informal arrangement, not a hard limit on federal law-making.” 293 Being merely a legal doctrine, a legalized norm among states, it should be subject to modification with the felt needs of social concerns. 294 Ultimately, that a chartering state rejects bonded limited liability is no reason why another state and its citizens, subject to the imposition of tort costs imposed by the foreign-chartered firm, need to accept idly that firm’s risky activities in its state. The state can protect its citizens by requiring as a condition of doing business in the state a bond on limited liability or waiver of limited liability conferred by the chartering state.

CONCLUSION

For all of its beneficial effects, limited liability imposes a terrible burden on an uncompensated tort victim. Tort victims subsidize some of the cost of a corporation’s activities. This is the precise effect of the rule. Without proper risk-taking incentives, a profitable corporation can still impose a net social cost. Limited liability is fundamentally unfair to tort victims who are not a part of the “nexus of contracts,” nor wish to be claimants if they had their druthers. Full compensation should be the normative goal of both torts and corporate law. Thus, efficiency and justice concerns can be complementary, and they suggest that the cost of a business activity should be fully internalized.

In spite of the normative ideal, the practical arguments for limited liability are powerful. Its proponents are correct insofar as

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293. Roe, Delaware’s Competition, supra note 250, at 597.

limited liability is economically efficient. Without limited liability, fewer investors may participate in the capital markets, the cost of capital may increase, the value of companies may decline, and fewer investors may directly purchase stocks, just to name a few possible effects. Not surprisingly, limited liability is the practical reality of our political economy.

The policy arguments for and against the rule are irreconcilable if the argument is engaged in absolute, abstract terms—either the rule should or should not be abolished. Each position produces disquieting results. The status quo of limited liability is tolerated because an acceptable alternative has not been found. The alternative of unlimited liability is deemed unacceptable because the potentially adverse effect on commerce would be too great, even with a rule of proportionate personal liability. A middle ground in the debate is needed.

The policy prescription is to retain the benefits of limited liability but to mitigate its negative effects. The benefit of the rule is not liability avoidance, but rather liability avoidance is its negative effect. The benefit is the enhanced value achieved from lower capital and agency costs. This benefit can only be gotten through a rule that limits a shareholder’s liability. But this does not mean that liability avoidance is a necessary evil. The entrepreneur’s good faith belief in the firm’s ability to pay its obligation should not be taken for granted, but rather the entrepreneur should be made to pay for the put option embedded in the rule of limited liability. This is the essential idea of bonding limited liability.

Bonding limited liability preserves the rule of limited liability. It requires the enterprise to capitalize a compensation fund. The fund would be easily administrable with some simple rules. Importantly, the bond would not be a fee, tax, or premium because the principal contribution is not an expense. The bond is redeemable upon dissolution and nonoccurrence of excess liability. The true cost to a company in good standing is the provision of a return-free capital, thus the opportunity cost of capital. This is a small financial burden, and one well within the ambit of corporate law to regulate.

Lastly, the idea of bonded limited liability is supported by the tort concept of enterprise liability and the insurance principle of risk retention. We tend to see corporate limited liability in an atomistic way: that is, limited liability is seen from the perspective of the
individual firm rather than the entire wealth producing enterprise that enjoys the legal entitlement of limited liability. As between the universe of equity holders and tort victims, it is better to assign the cost of business activities to equity holders. Bonded limited liability produces a more equitable result under tort law and corporate law.