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# AN ECONOMIC JUSTIFICATION FOR CORPORATE REORGANIZATIONS

*Charles W. Adams\**

## I. INTRODUCTION

Chapter 11 of the Bankruptcy Code authorizes a bankruptcy court to alter an insolvent corporation's capital structure so that it can survive as a going concern. Liabilities typically are trimmed down so that they no longer exceed assets, and the interests of equity holders may be diluted or perhaps eliminated. These results are achieved through a process of negotiation and adjudication that is often time consuming and expensive.

The costs and delay of reorganization have led leading commentators to conclude that the corporate reorganization process is not economically justified, and to propose alternative schemes that substitute market-based mechanisms for the negotiation and adjudication process that now prevails under Chapter 11.<sup>1</sup> This Article challenges this conclusion, and takes the position that these commentators have not attached sufficient significance to the transaction costs involved in using the market to raise the capital necessary to reorganize a corporation's capital structure. The magnitude of these costs can be estimated from empirical data on underwriting costs that have been

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\* Professor of Law, The University of Tulsa College of Law. I would like to express gratitude to the following persons for reading an earlier draft of this Article and sharing their comments with me: M. Thomas Arnold, John D. Ayer, Douglas G. Baird, Dennis E. Bires, Frank H. Easterbrook, Dale J. Gilsinger, Allen R. Kamp, Lynn M. LoPucki, John C. McCoid, Ali M.M. Mojdehi, Mark J. Roe, Winona Tanaka, Robert B. Thompson, and Gregory D. Wozniak.

1. See DOUGLAS G. BAIRD & THOMAS H. JACKSON, CASES, PROBLEMS AND MATERIALS ON BANKRUPTCY 965-66 (2d ed. 1990); THOMAS G. JACKSON, THE LOGIC AND LIMITS OF BANKRUPTCY LAW 218-24 (1986) (recommending the sale of a company as a going concern); Douglas G. Baird, *The Uneasy Case for Corporate Reorganizations*, 15 J. LEGAL STUD. 127, 145 (1986) (also recommending sale); Lucian Arye Bebchuk, *A New Approach to Corporate Reorganizations*, 101 HARV. L. REV. 775 (1988) (advocating the distribution of options to shareholders and junior creditors to purchase shares in the reorganized company); Mark J. Roe, *Bankruptcy and Debt: A New Model for Corporate Reorganization*, 83 COLUM. L. REV. 527 (1983) (determining valuation by selling a portion of the reorganized company's stock in the market).

collected by the Securities and Exchange Commission. While the bankruptcy reorganization process avoids some transaction costs, it generates other costs of its own. Depending on the relative magnitude of its costs, the Chapter 11 reorganization process may be more efficient than its alternatives. Hence, the Chapter 11 reorganization process can be justified by the burden of transaction costs that would be incurred if an insolvent corporation were restructured by other means.

This Article begins with a discussion of corporate capital structures and the problems of corporate governance that arise when a corporation's liabilities exceed its assets. These problems involve the conflicts of interest that insolvency may generate between a corporation's creditors and its shareholders, and the encouragement that insolvency gives to management to take undue risks on behalf of the shareholders. Next, it explains how the going concern value of an insolvent corporation can be greater than its liquidation value, so that it may be worthwhile to preserve it. This discussion is followed by an analysis of the reorganization process that focuses on restoration of a sound capital structure, with an adequate equity cushion as its primary objective. The restoration of an adequate equity cushion in the corporation's capital structure is necessary to resolve the conflicts of interest that insolvency generates. The Article concludes with an analysis and criticism of the alternatives to reorganization suggested by the commentators.

## II. CORPORATE CAPITAL STRUCTURES

The capital structure of a corporation is typically divided between debt and equity. Equity is necessary because the future earnings of a corporation cannot be predicted precisely, and some class of investors must be assigned the residue of earnings after all expenses have been paid.<sup>2</sup> Debt is not essential, but a corporation normally incurs some debt to its employees and suppliers in the regular course of its business operations. In addition, debt is an alternative source of financing for a corporation, and most corporations maintain substantial levels of debt.<sup>3</sup>

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2. See 1 MODEL BUSINESS CORP. ACT ANN. § 6.01 official comment (1989) (stating that "[s]ection 6.01(b) ensures that there is always in existence one or more classes of shareholders who share in the ultimate residual interest in the corporation . . .").

3. Between 1937 and 1979, the overall debt-to-asset ratio increased from 53% to 74% for all United States corporations, and from 26% to 55% for manufacturing corporations. Robert A. Taggart, Jr., *Secular Patterns in the Financing of U.S. Corporations*, in CORPO-

Determining the appropriate mix of debt and equity in corporations is an important problem that has occupied financial economists for many years.<sup>4</sup> Early writers observed that the use of debt provides leverage for shareholders, giving them a higher expected return while simultaneously increasing their risk.<sup>5</sup> Consider, for example, an investment that has a 50/50 probability of returning either \$50,000 or \$150,000, so that the expected return is \$100,000. If \$1,000,000 of capital is needed for this investment and this capital is provided entirely by equity, then the investment would yield an expected rate of return of ten percent. The expected rate of return for equity holders would increase substantially if \$900,000 of the capital came from debt paying nine percent interest, and the remaining \$100,000 came from equity. The expected return for equity would then be \$19,000 (obtained by subtracting interest to debt holders of \$81,000 from the expected return before interest of \$100,000), and the expected rate of return for the \$100,000 of equity would be nineteen percent. With the introduction of debt, the expected rate of return for equity has nearly doubled. At the same time, the riskiness of the equity investment has increased dramatically because the expected return, after interest payments of \$19,000, is the average of a 50/50 probability of either a \$31,000 loss,<sup>6</sup> or a \$69,000 profit<sup>7</sup> on the \$100,000 equity investment. The use of debt for capital financing both dramatically improves the rate of return for shareholders<sup>8</sup> and exposes their invest-

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RATE CAPITAL STRUCTURES IN THE UNITED STATES 13, 16-17 (B. Friedman ed. 1985); see also John C. Coffee, Jr., *Shareholders Versus Managers: The Strain in the Corporate Web*, in JOHN C. COFFEE, JR. ET AL., *KNIGHTS, RAIDERS, AND TARGETS: THE IMPACT OF THE HOSTILE TAKEOVER* 77, 92-93 (1988) (noting that the trend of increasing debt-to-asset ratios continued through the first half of 1985).

4. VICTOR BRUDNEY & MARVIN A. CHIRELSTEIN, *CASES AND MATERIALS ON CORPORATE FINANCE* 372 (3d ed. 1987) (commenting that "[o]ne of the most widely debated issues in financial theory continues to be whether the value of the corporate enterprise can be enhanced by a judicious use of leverage, i.e., by financing corporate investments with senior securities as well as common shares."); Michael Bradley et al., *On the Existence of an Optimal Capital Structure: Theory and Evidence*, 39 J. FIN. 857, 857 (1984) (observing that "[o]ne of the most contentious issues in the theory of finance during the past quarter century has been the theory of capital structure.").

5. See, e.g., the classic text on financial analysis, BENJAMIN GRAHAM ET AL., *SECURITY ANALYSIS: PRINCIPLES AND TECHNIQUES* 539-50 (4th ed. 1962).

6. Obtained by subtracting interest of \$81,000 from a return of \$50,000.

7. Obtained by subtracting interest of \$81,000 from a return of \$150,000.

8. In quantitative terms, the change in the expected rate of return for equity when debt is issued is equal to the difference between the expected rate of return without equity and the interest rate on the debt, multiplied by the ratio of debt to equity. See Franco Modigliani & Merton H. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment*,

ment to increased risk.

The increased risk resulting from leverage yields a number of costs contributing to the possibility that the corporation will be unable to service its debt, thereby leading to a bankruptcy proceeding or other disruption of its activities. The most obvious of these costs are the legal and accounting expenses involved in a bankruptcy proceeding, as well as reduced revenues and increased expenses from operations. What may be of greater significance, however, are the potential conflicts of interest between shareholders and debt-holders that are produced by leverage and that give rise to agency and monitoring costs. Shareholders receive the rewards if the corporation succeeds, but they are protected by the limited liability rule if it fails.<sup>9</sup> On the other hand, debt-holders can receive no more than the stated rate of interest if the business succeeds, but stand to lose the principal amount of the debt owed to them if it fails. Even in cases where the taking of risks will not likely benefit the corporation as a whole, it may benefit shareholders at the expense of debt-holders because shareholders have everything to gain from risk-taking and only the value of their shares to lose.<sup>10</sup>

Accordingly, the use of debt for financing can produce agency

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48 AM. ECON. REV. 261, 271 (1958) (stating that "[t]he expected yield of a share of stock is equal to the appropriate capitalization rate . . . for a pure equity stream in the class, plus a premium related to financial risk equal to the debt-to-equity ratio times the spread between [the capitalization rate] and [the rate of interest].") (emphasis in original).

9. Thorough discussions of the limited liability rule can be found in Frank H. Easterbrook & Daniel R. Fischel, *Limited Liability and the Corporation*, 52 U. CHI. L. REV. 89 (1985); Paul Halpern et al., *An Economic Analysis of Limited Liability in Corporate Law*, 30 U. TORONTO L.J. 117 (1980).

10. Michael C. Jensen & William F. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 334 (1976) (stating that "[w]ith [a highly leveraged] financial structure the owner-manager will have a strong incentive to engage in activities (investments) which promise very high payoffs if successful even if they have a very low probability of success. If they turn out well, he captures most of the gains, if they turn out badly, the creditors bear most of the costs."); see also Merton H. Miller, *The Wealth Transfers of Bankruptcy: Some Illustrative Examples*, 41 LAW & CONTEMP. PROBS., Autumn 1977, at 39, 40. Professor Miller states that:

[w]ith a levered firm, if the stockholders can somehow manage to increase the riskiness of the firm, they increase the value of their equity interest. If their gamble succeeds—the value of the firm rises to its newly raised potential high—the stockholders can . . . pocket their winnings. If the risky venture fails—the value of the firm falls to its newly lowered potential low—the stockholders invoke their limited liability, walk away from the business, and leave the creditors holding the bag and whatever happens to be left in it.

*Id. Cf. Roe, supra* note 1, at 549 (stating that "[r]isky debt creates a conflict of interest between the debtholders and shareholders that encourages unnecessary high-risk strategies.").

costs in the form of incentives for taking excessive risks. To the extent that management is acting for the benefit of the shareholders, it will embark on riskier projects when a corporation is highly leveraged than it would if the corporation had no debt. To protect their interests, debt-holders might seek provisions in their debt instruments that place constraints on the level of debt or the riskiness of the projects that management may undertake.<sup>11</sup> However, there are monitoring costs associated with the negotiation and enforcement of these provisions.<sup>12</sup> The debt-holders will seek to pass all of the costs associated with leverage (bankruptcy costs, agency costs resulting from the additional risk caused by management's incentive to undertake riskier projects, and monitoring costs) along to the corporation and its shareholders by charging higher interest rates.<sup>13</sup>

Thus, while corporate leverage tends to improve the expected return to shareholders, leverage may be counterproductive if carried so far that it causes the cost of debt financing to rise. However, the costs associated with debt financing may be minimized if there is sufficient equity to act as a "cushion" to absorb the bulk of the risk to the debt-holders. The presence of an equity account affords protection to debt-holders because they are entitled to payment ahead of shareholders.<sup>14</sup> The size of the equity cushion that is needed depends on the volatility of the corporation's expected earnings.<sup>15</sup> As long as

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11. See Miller, *supra* note 10, at 40 (noting that "[c]reditors, of course, are thoroughly aware of these and related temptations for the shareholders, and they take steps—mainly in the form of restrictive covenants and surveillance—to protect themselves from risk-increasing changes in the nature of a firm after their original bargain with it has been struck.”).

12. Since monitoring costs will be passed on to the corporation, corporate management may attempt to reduce them by agreeing to provide detailed reports to the debt-holders and to have these reports examined by an independent outside auditor. This will generate bonding costs, which are borne directly by the corporation. See Jensen & Meckling, *supra* note 10, at 338-39.

13. Jensen & Meckling, *supra* note 10, at 334-39.

14. See 1 MODEL BUSINESS CORP. ACT ANN. § 6.40 (1989) (noting that distributions to shareholders are not allowed if this would make the corporation's total assets less than its total liabilities plus any amount needed to satisfy preferential claims of preferred shareholders).

15. A strong correlation between the volatility of a firm's earnings and the size of its equity cushion was demonstrated empirically in Bradley et al., *supra* note 4, at 873-74 (stating that “[t]he data reported . . . indicate that our measure of firm volatility is significant and negatively related to firm leverage ratios across the 821 firms in the sample. The *t*-statistic is -12.33.”); see also Nevins D. Baxter, *Leverage, Risk of Ruin and the Cost of Capital*, 22 J. FIN. 395, 402 (1967). Professor Baxter noted that:

since businesses with relatively stable income streams (such as utilities) are less subject to the possibility of ruin, they may find it desirable to rely relatively heavily on debt financing. Firms with risky income streams, on the other hand, are

there is a sufficient equity cushion so that the likelihood of the corporation's failing to make debt payments as they become due is remote, the expected costs associated with bankruptcy and other disruptions of the corporation's activities on account of insolvency will be small.<sup>16</sup> Similarly, if there is a sufficient equity cushion, management will not have the incentive to take excessive risks because the risk of failure will be borne by shareholders more than by debt-holders. Finally, the need for additional monitoring by the debt-holders is removed if management's incentives for excessive risk-taking are eliminated. By neutralizing a potential conflict of interest between shareholders and debt-holders, an equity cushion lowers the various costs associated with debt financing. Corporate management can then seek to further the joint interests of shareholders and debt-holders by operating the corporation to maximize its value.

The optimal size of an equity cushion is affected by a number of factors and probably can never be determined exactly. In addition to the volatility of the corporation's expected earnings and the expected costs associated with bankruptcy (which are difficult to forecast), the optimal size of the equity cushion would appear to be affected by tax rates,<sup>17</sup> as well as by other variables.<sup>18</sup> Perhaps the most that can

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less able to assume fixed charges in the form of debt interest and may well find that the average cost of capital begins to increase with leverage even when reliance on debt is moderate.

*Id.*

16. See Stewart C. Myers, *The Capital Structure Puzzle*, 39 J. FIN. 575, 581 (1984) (stating that "[s]ince costs of financial distress are caused by threatened or actual default, safe firms ought to be able to borrow more before expected costs of financial distress offset the tax advantages of borrowing.").

17. See Roger H. Gordon & Burton G. Malkiel, *Corporation Finance, in HOW TAXES AFFECT ECONOMIC BEHAVIOR* 131 (H. Aaron & J. Pechman ed. 1981); Harry DeAngelo & Ronald W. Masulis, *Optimal Capital Structure Under Corporate and Personal Taxation*, 8 J. FIN. ECON. 3 (1980). But see Merton H. Miller, *Debt and Taxes*, 32 J. FIN. 261, 262 (1977) (observing that "even in a world in which interest payments are fully deductible in computing corporate income taxes, the value of the firm, in equilibrium will still be independent of its capital structure.").

18. See WILLIAM A. KLEIN & JOHN C. COFFEE, JR., *BUSINESS ORGANIZATION AND FINANCE* 315-24 (3d ed. 1988) (discussing the effects on a firm's optimal capital structure of problems associated with the monitoring of management, management's preference for internally generated funds, and asymmetric information possessed by management); Stephen A. Ross, *The Determination of Financial Structure: The Incentive Signaling Approach*, 8 BELL J. ECON. 23 (1977) (explaining that increasing debt increases the market's perception of firm value); Alan Schwartz, *A Theory of Loan Priorities*, 18 J. LEGAL STUD. 209, 227 (1989) (explaining that asymmetric information possessed by management causes debt financing to be preferred over equity); Oliver E. Williamson, *Corporate Finance and Corporate Governance*, 43 J. FIN. 567, 580-81, 589 (1988) (observing that transaction costs for debt financing are

be said with much assurance is that there is a range of debt-to-equity ratios that produce a capital structure with an equity cushion of the appropriate magnitude to hold in check the costs associated with leverage, while at the same time taking advantage of the lower cost of debt. Even though one may never be able to specify the optimal debt-to-equity ratio with precision, it is clear that an equity cushion serves an important role in maintaining the financial stability of a corporation. The next section of this Article will examine the problems that arise when a corporation no longer has an equity cushion.

### III. PROBLEMS INTRODUCED BY INSOLVENCY

A corporation generally needs to have a positive equity account in order to have access to credit. As long as the value of the corporation's assets exceeds its liabilities, it is realistic to expect that lenders, who will provide the cash that the corporation needs for its operations, can be found.<sup>19</sup> As is illustrated in Figure 1, a loan will create an additional liability, but will also provide cash, which may be used to pay the current debts. Once the cash from the loan is used to pay the current debts, the loan will be substituted for them on the corporation's balance sheet.<sup>20</sup>

In contrast, a corporation whose liabilities exceed the value of its assets faces serious financial problems. Intense conflicts of interest among management, shareholders, and creditors are generated in this situation. The insufficiency of assets to satisfy all claims gives rise to a race among the creditors to seek immediate payment before the limited fund is exhausted. Each creditor has an incentive to enforce its claim by seizing one or more of the corporation's assets, even though this may disrupt the corporation's business activities. At the same time, the corporation finds it difficult to borrow to pay its

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less than for equity, except where firm assets are firm-specific and cannot be redeployed easily).

19. It may happen that unpaid creditors will disrupt the corporation's business activities by seizing its assets while a lender is being located. To avoid this, the corporation might file a bankruptcy reorganization proceeding to gain the benefit of an automatic stay pursuant to 11 U.S.C. section 362 (1988). However, finding a lender is likely to be much easier and cheaper than filing a reorganization proceeding.

20. See William H. Meckling, *Financial Markets, Default, and Bankruptcy: The Role of the State*, 41 LAW & CONTEMP. PROBS., Autumn 1977, at 13, 33 (contending that "[i]f [a] firm has a present value which exceeds the sum of the claims held by creditors, it should always be able to meet its current cash-flow requirements simply by substituting new loans for old.").



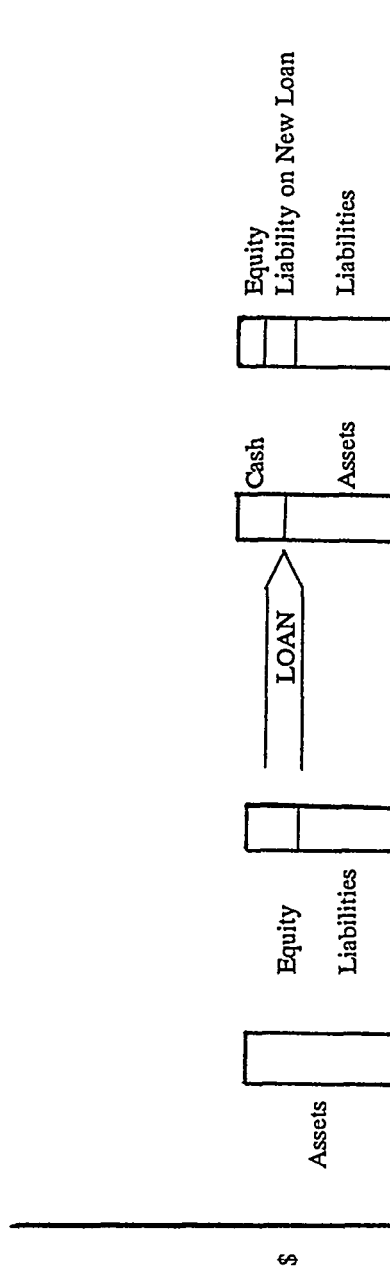


Figure 1. Raising Cash in Solvent Corporation

debts because there is no equity cushion to which lenders can look for security. Although it is possible that some lenders would extend

credit in return for security interests against particular corporate assets, this would provide only temporary relief, and eventually the creditors would again seek liquidation to satisfy their claims.

A possible disadvantage to liquidation is that the price obtained for the corporation's assets, if sold piecemeal, might be less than their value if kept together within the corporation. Where the liquidation value of the corporation's assets is less than their going concern value, liquidation causes a loss for the creditors as a group. This is illustrated in Figure 2. Nevertheless, individual creditors may be driven to pursue liquidation so that they can be paid ahead of other creditors.

While the creditors are threatening to liquidate, the shareholders and management have other motivations. If a corporation is insolvent in the sense that its liabilities exceed the value of its assets, shareholders have nothing to gain from liquidation, and they will want to see the corporation's operations continue as long as there is any chance that it will become solvent in the future.<sup>21</sup> In the absence of an equity cushion, shareholders have nothing to lose if the corporation experiences further losses; the creditors, rather than the shareholders, bear the downside risk.<sup>22</sup> In addition, the shareholders will not be interested in merely moderate gains because until the negative balance in the equity account is made up, any gains will benefit the creditors instead of the shareholders.<sup>23</sup> Shareholders will therefore tend to favor projects that offer even a small possibility of large enough returns to restore a positive balance to their equity account over ones that promise only moderate gains.<sup>24</sup> The effect of the corporation's undertaking

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21. Jeremy I. Bulow & John B. Shoven, *The Bankruptcy Decision*, 9 BELL J. ECON. 437, 439 (1978) (stating that "[s]ince the equity holders are the residual claimants, they always seek to avoid bankruptcy."); Lynn M. LoPucki, *The Debtor in Full Control—Systems Failure Under Chapter 11 of the Bankruptcy Code? (Second Installment)*, 57 AM. BANKR. L.J. 247, 259 (1983) (explaining that "[t]he owners . . . often have no economic incentive to cease operation of even the nonviable business. They seldom will receive anything upon liquidation."); Michelle J. White, *Public Policy Toward Bankruptcy: Me-First and Other Priority Rules*, 11 BELL J. ECON. 550, 553 (1980) (observing that "equity holders always favor continuance, since their interest disappears under liquidation . . .").

22. Lynn M. LoPucki, *A General Theory of the Dynamics of the State Remedies/Bankruptcy System*, 1982 WIS. L. REV. 311, 328 (noting that "an insolvent business operates not at the risk of the owner, but at the risk of its creditors.").

23. See Frank H. Easterbrook & Daniel R. Fischel, *Voting in Corporate Law*, 26 J.L. & ECON. 395, 404 (1983) (stating that "[w]hen the firm is in distress, the shareholders' residual claim goes under water, and they lose the appropriate incentives.").

24. Professor LoPucki makes this point as follows:

[T]he debtor is motivated in the direction of high risk investment. Normal returns may be insufficient to pay his creditors, leaving no possibility of personal gain to the debtor from normal operations. The high risk investment, regardless of its

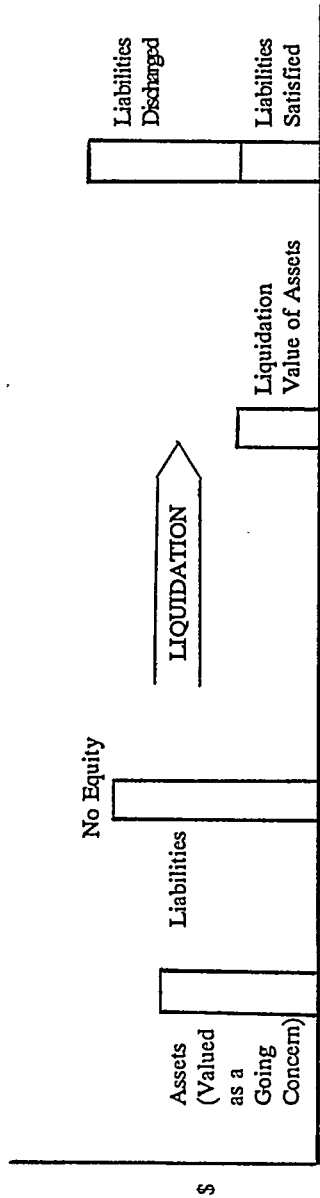


Figure 2. Liquidation of Insolvent Corporation

risky projects that offer the possibility of large returns is to transfer value from creditors to shareholders because the creditors bear the

intrinsic merits, may offer the only possibility that the debts will be repaid and that there will be something remaining for the debtor.

LoPucki, *supra* note 22, at 321-22.

downside risk, while an upside gain large enough to overcome the negative equity balance will accrue to the benefit of the shareholders.<sup>25</sup> In other words, when a corporation is insolvent, the shareholders are in the position of being able to speculate with the creditors' money.<sup>26</sup> Accordingly, shareholders will favor high risk projects, regardless of whether they provide the maximum expected return on the corporation's assets.<sup>27</sup>

The conflicts of interest between its creditors and shareholders produce a crisis for the insolvent corporation. Unless the corporation's dysfunctional capital structure can be repaired either through the bankruptcy reorganization process or otherwise, the corporation will have to be liquidated.

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25. See RONALD W. MASULIS, *THE DEBT/EQUITY CHOICE* 35-36 (1988). Masulis explains that:

stockholders gain when the risk of firm assets is raised unexpectedly, even though the value of the firm's assets may fall. This result can occur because the risk increase causes a shift in wealth from bondholders to stockholders that more than offsets the effect of a fall in firm value on the stockholders. Thus, maximizing stockholders' wealth is not always equivalent to maximizing firm value, and if stockholders control the firm, the former objective is likely to be followed at the expense of the latter.

*Id.* (footnote omitted); Devra L. Golbe, *The Effects of Imminent Bankruptcy on Stockholder Risk Preferences and Behavior*, 12 BELL J. ECON. 321, 326 (1981) (noting that "[i]ncreased variance in returns to the firm does not increase the riskiness of equity holders' returns because the equity holders' wealth is already guaranteed to be zero should bankruptcy occur. Instead, increased variance in the firm's returns increases only the upper tail of the distribution of shareholders' returns."); LoPucki, *supra* note 22, at 336 (noting that "[b]y risking loss and creating a concomitant possibility of gain, the owners of the enterprise can indirectly transfer values to themselves."); Miller, *supra* note 10, at 40-41. Professor Miller observed that:

[c]ourt protection that permits stockholders to work their way out of difficulties and repay their obligations in full . . . gives the stockholders a valuable call option at the expense of the creditors, who in effect are compelled to put up the OPM [Other People's Money] on terms they would otherwise never accept.

*Id.*

26. Professor Miller offers the following comments:

Gambling with other people's money would indeed be an artistic way of making a living, if only one could find the other people to supply the bankroll at the riskless rate of interest. In general one can't. But if a corporation is close to default, and it can get court protection from foreclosure, it may have a close equivalent.

Miller, *supra* note 10, at 40 (emphasis in original).

27. "Once a firm is insolvent, shareholders at best have little incentive to monitor the firm and at worst have an incentive to encourage the firm to engage in risky projects." Baird, *supra* note 1, at 131.

#### IV. GOING CONCERN VERSUS LIQUIDATION VALUE

In many circumstances, a prompt liquidation will be the best course because the corporation is not worth saving.<sup>28</sup> The corporation may be providing goods or services subject to declining demand. Perhaps rising costs for labor or materials are making it uneconomical to continue operations. The corporation may be unable to keep up with new technology, foreign or domestic competition, or a changing regulatory environment. In some cases, management or employees are incompetent or dishonest.<sup>29</sup> The very fact of insolvency is a reasonably good indicator that the corporation's business operations are fundamentally unsound, and if that is so, a reorganized capital structure will not solve the corporation's financial problems. Instead, the corporation's assets should be redeployed to another enterprise that can make more productive use of them.<sup>30</sup>

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28. See Douglas G. Baird & Thomas H. Jackson, *Bargaining After the Fall and the Contours of the Absolute Priority Rule*, 55 U. CHI. L. REV. 738, 741 (1988) [hereinafter *Bargaining After the Fall*]. Professor Baird and Dean Jackson argue that:

[s]ome firms that cannot meet their obligations are not worth keeping intact as going concerns. These are the manufacturers that sell computers no one will buy and the restaurants that serve food no one will eat. The firm's assets are worth more sold piece by piece than as a unit.

*Id.*; see also Douglas G. Baird & Thomas H. Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests: A Comment on Adequate Protection of Secured Creditors in Bankruptcy*, 51 U. CHI. L. REV. 97, 102 (1984) [hereinafter *Adequate Protection of Secured Creditors*] (stating that "[a] principal characteristic of a market economy is, after all, that some firms fail, and postponing the inevitable or keeping marginal firms alive may do more harm than good."); William L. Cary, *Liquidation of Corporations in Bankruptcy Reorganization*, 60 HARV. L. REV. 173, 194 (1946). Professor Cary stated that:

[r]ehabilitation of the debtor, though it may be possible, is not always the best solution, either for the creditors and security holders or for the economy as a whole. As an extreme illustration, the debt structure of a wagon concern in 1910 might be so drastically reduced that, although it could continue operating for a while longer, the net result would probably be the dissipation of its remaining capital.

*Id.* at 194; E. Han Kim & John D. Schatzberg, *Voluntary Liquidations: Causes and Consequences*, 5 MIDLAND CORP. FIN. J., Winter 1988, at 30 (noting that "[s]ome companies, perhaps more than you might suspect, are worth more dead than alive. In our recent study of voluntary corporate liquidations, we find that when a firm voluntarily liquidates, the value of its stock increases by an average of 34 percent.") (footnote omitted).

29. See Ismael G. Dambolena & Sarkis J. Khoury, *Ratio Stability and Corporate Failure*, 35 J. FIN. 1017, 1017-19 (1980) (listing the major causes of corporate failure).

30. Professor LoPucki made the following observations in his empirical study of Chapter 11 cases filed in the Bankruptcy Court for the Western District of Missouri during the first year after the Bankruptcy Code went into effect:

This study disclosed that the large majority of debtors who filed under chapter 11 did so because their business was about to be liquidated by creditors

There are situations, however, in which an insolvent corporation is worth saving. Even though the company is insolvent, there may be a substantial demand for the goods and services that it produces, and it may have a successful business operation and an efficient organization.<sup>31</sup> Its insolvency may have been caused by an unusual event that is unlikely to recur or by a particular problem that has been permanently corrected.<sup>32</sup> An example is the case of Texaco after Pennzoil obtained a verdict in excess of \$10 billion against it. The market value of Texaco's stock before Pennzoil's suit was filed was about \$8.5 billion,<sup>33</sup> and so the Pennzoil verdict rendered Texaco insolvent. Nevertheless, Texaco's insolvency did not reflect on the quality of its business operations or on its viability as a firm. The extraordinary series of events that led to the Pennzoil suit were unlikely to recur, particularly to Texaco. Thus, Texaco's insolvency did not necessitate a liquidation of its assets, and the dissolution of its organization. Instead, a reorganization of Texaco's capital structure was called for, which was accomplished by Texaco's filing a Chapter 11 proceeding and eventually settling Pennzoil's claim for \$3 billion.<sup>34</sup> Manville and A.H. Robbins are probably other examples of insolvent companies that were worth saving.<sup>35</sup>

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under non-bankruptcy law. It also disclosed that the large majority of these businesses fail either during or shortly after the chapter 11 proceedings. Together these two facts suggest that continued operation of many of these businesses during the chapter 11 proceeding was ill-advised and that the bankruptcy court, either directly or at the prompting of the creditors' committee, should have put a stop to them.

LoPucki, *supra* note 21, at 258-59 (footnote omitted).

31. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 377-78 (3d ed. 1986) (explaining that "[a] firm can be at once insolvent and economically viable."); JACKSON, *supra* note 1, at 209-10 (stating that "[t]he fact that a business may have liabilities in excess of assets itself says nothing about whether the assets should be doing what they are doing or something else.").

32. See Baird & Jackson, *Adequate Protection of Secured Creditors*, *supra* note 28, at 119 n.69 (pointing out that "[a] firm's liabilities could, for example, exceed its assets because of torts the firm committed in the past when it was engaged in selling a different kind of product. Whenever a firm is insolvent, defaults are inevitable, even if the firm has value as a going concern.").

33. David M. Cutler & Lawrence H. Summers, *The Costs of Conflict Resolution and Financial Distress: Evidence From the Texaco-Pennzoil Litigation*, 19 *RAND J. ECON.*, Summer 1988, at 157, 160.

34. See *In re Texaco Inc.*, 84 B.R. 893, 902 (Bankr. S.D.N.Y. 1988) (holding that the "settlement will avoid the risk of having to satisfy the full amount of Pennzoil's judgment, which now exceeds \$11.259 billion, inclusive of interest. If Texaco were required to satisfy this judgment in full its shareholders will likely have their interests completely eliminated.").

35. JACKSON, *supra* note 1, at 210. Jackson argues that:

In the case of Manville, for example, it is entirely possible that the current use of

The justification that is usually given for choosing reorganization of an insolvent corporation instead of liquidation is that its value as a going concern is greater than its value if sold piecemeal.<sup>36</sup> An alternative statement is that the insolvent corporation's revenues are higher than its variable costs.<sup>37</sup> What may cause a corporation's going concern value to be greater than its liquidation value, or its revenues to be higher than its variable costs, is the presence of asset specificity; that is to say, some of its assets have a greater value when owned by that particular corporation than when owned by another.<sup>38</sup> Asset specificity within a firm may arise from the geographic proximity of its assets to a particular location, the transaction costs involved in

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its assets (as a construction supply company) is the best use of those assets, and that it would be worth assembling them for that purpose if Manville did not already exist. It is not inconsistent with that observation to further note that Manville may in fact be insolvent because of torts committed in its past.

*Id.*

36. *E.g.*, H.R. REP. NO. 595, 95th Cong., 2d Sess. 220, reprinted in 1978 U.S.C.C.A.N. 5963, 6179 (stating that "[t]he premise of a business reorganization is that assets that are used for production in the industry for which they were designed are more valuable than those same assets sold for scrap."); Bebhuk, *supra* note 1, at 776 (noting that "reorganization is thought to be especially valuable when (i) the company's assets are worth much more as a going concern than if sold piecemeal, and (ii) there are few or even no outside buyers with both accurate information about the company and sufficient resources to acquire it."); Robert C. Clark, *The Interdisciplinary Study of Legal Evolution*, 90 YALE L.J. 1238, 1252 (1981) (explaining that "[w]henver the going-concern value of an insolvent debtor's business exceeds its piecemeal liquidation value, and the receivership preserves that excess value, there is a net gain for creditors and society.").

37. See POSNER, *supra* note 31, at 377-78. Judge Posner explained:

If the demand for the firm's product (or products) has declined unexpectedly, the firm may find that its revenues do not cover its total costs, including fixed costs of debt. But they may exceed its variable costs, in which event it ought not be liquidated yet. And maybe in the long run the firm could continue in business indefinitely with a smaller plant.

*Id.*; LoPucki, *supra* note 22, at 327 (noting that "[c]ontinued operation will be economically desirable so long as the present value of the future excess of revenues over expenses other than interest on debt already incurred and depreciation on assets already owned exceeds the resale value of the assets.") (emphasis in original); George F. Nichols, *A Rationale of Corporate Reorganization*, 9 J. BUS. U. CHI. 77, 90 (1936). Professor Nichols stated:

The immediacy of dissolution will of course depend on the most profitable method of liquidation. If the concern is able in its present state of technical efficiency to earn part of its depreciation, the best method would obviously be to continue to operate until its technical efficiency is so reduced for lack of maintenance that it cannot earn its direct costs. If it cannot earn its direct costs, nothing remains but to salvage or dismantle.

*Id.*

38. See generally Michael H. Riordan & Oliver E. Williamson, *Asset Specificity and Economic Organization*, 3 INT'L J. OF INDUS. ORG. 365 (1985) (discussing the effects of asset specificity on production and transaction costs and the organization of firms).

assembling and making custom modifications to the assets, the specialized training and experience of its employees, the development of its organizational structure, and other sources.<sup>39</sup>

A railroad is a nice example of a firm that is likely to have a greater value as a going concern than in liquidation because of a high degree of asset specificity. A length of track has much less value when it is not incorporated into a railroad network. During the nineteenth century, railroad companies incurred enormous debt in assembling the great railroad networks in order to take advantage of the potential for long haul and high density traffic. When some of the railroads failed to generate enough revenue to service their debt, it became necessary to find a way to preserve their huge networks so that they could continue to operate.<sup>40</sup> The means devised by creative attorneys was the equity receivership,<sup>41</sup> which was the forerunner of the business reorganization proceeding in Chapter 11 of the Bankruptcy Code.<sup>42</sup>

Another asset that might be of substantially greater value as part of a going concern than as part of a corporation in liquidation is the net operating loss carryover under the federal income tax law.<sup>43</sup> The

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39. See Oliver E. Williamson, *The Modern Corporation: Origins, Evolution, Attributes*, 19 J. ECON. LITERATURE 1537, 1546 (1981) (listing the following ways in which asset specificity may arise: site specificity; physical asset specificity; and human asset specificity).

40. Arthur H. Dean, *A Review of the Law of Corporate Reorganizations*, 26 CORNELL L.Q. 537, 537 (1941) (observing that "[i]n the middle of the last century it became obvious that some method had to be found in order to enable the newly built, but debt-laden, railroads to carry on and yet to relieve them in their inability to meet their debts as they matured."); Jeffrey Stern, Note, *Failed Markets and Failed Solutions: The Unwitting Formulation of the Corporate Reorganization Technique*, 90 COLUM. L. REV. 783, 784 (1990) (pointing out that "[r]ailroads had enormous fixed assets; they could be wound up and their assets distributed only with a very substantial loss of value. In addition, these entities provided services vital to the community. They could not be sold piecemeal without disastrous social consequences.").

41. See John D. Ayer, *Rethinking Absolute Priority After Ahlers*, 87 MICH. L. REV. 963, 969-70 (1989) (observing that "[t]he equity receivership . . . is bound up with the building of the railroads."); Alfred N. Heuston, *Corporate Reorganizations Under the Chandler Act*, 38 COLUM. L. REV. 1199, 1199 (1938) (stating that "[t]he federal equity receivership developed because of the necessity for continued operation of railroad and public utility properties pending the adjustment of difficulties with creditors."); Robert T. Swaine, *Reorganization of Corporations: Certain Developments of the Last Decade*, 27 COLUM. L. REV. 901, 901 (1927) (observing that "it has been in [the reorganization of railroads] that the law affecting corporate reorganizations, and particularly the law affecting reorganization through judicial proceedings, has been developed.").

42. BAIRD & JACKSON, *supra* note 1, at 959-60 (noting that "many of the features of Chapter 11 (from its creditor committees to the reorganization plan itself) grew out of the equity receivership.").

43. See, e.g., *In re Prudential Lines, Inc.*, 928 F.2d 565, 571 (2d Cir.) (holding that a



net operating loss carryover in the Internal Revenue Code<sup>44</sup> was introduced to mitigate the artificiality of the annual accounting system by permitting a taxpayer with fluctuating earnings to offset losses from one year against profits from another. The net operating loss carryover thus operates as a kind of income averaging mechanism so that a taxpayer with alternating years of losses and profits does not pay substantially higher taxes than a taxpayer with a more stable income.<sup>45</sup> Over the years, taxpayers have devised a variety of schemes for transferring the net operating loss deduction so that it can be used to average income between different taxpayers, rather than between different tax years of one taxpayer. Congress and the courts have reacted by erecting a number of barriers to corporate taxpayers' trafficking in net operating loss deductions.<sup>46</sup> Under Internal Revenue Code ("I.R.C.") section 381,<sup>47</sup> net operating loss carryovers are allowed for various types of corporate liquidations and reorganizations, but under I.R.C. section 382,<sup>48</sup> net operating loss carryovers are not allowed for corporate acquisitions in which there is a change of more than fifty percentage points in the ownership of the acquired

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net operating carryover is property of the bankruptcy estate), *cert. denied*, 112 S. Ct. 82 (1991); see also Michelle J. White, *The Corporate Bankruptcy Decision*, J. ECON. PERSP., Spring 1989, at 129, 144. Professor White explained:

[F]irms that reorganize retain most of their accrued tax loss carryforwards, which would be lost if they liquidated. These loss carryforwards shelter the firm from having to pay corporate profits taxes for a period, even if their operations start to be profitable. They make reorganization attractive relative to liquidation, but do not affect the choice between reorganization and remaining out of bankruptcy.

*Id.*

44. I.R.C. § 172 (1988). Taxpayers may carry net operating loss deductions back three years and forward fifteen years. *Id.* § 172(b).

45. See, e.g., *United States v. Foster Lumber Co., Inc.*, 429 U.S. 32, 42-43 (1976). The Court held that:

[a]meliorating the timing consequences of the annual accounting period makes it possible for shareholders in companies with fluctuating as opposed to stable incomes to receive more nearly equal tax treatment . . . Congress also sought through allowance of loss carryovers to stimulate enterprise and investment, particularly in new businesses or risky ventures where early losses can be carried forward to future more prosperous years.

*Id.* (footnotes omitted); see also *Todd v. Commissioner*, 77 T.C. 246, 250-51 (1981) (reviewing the congressional policy underlying the enactment of the net operating loss provisions), *aff'd*, 682 F.2d 207 (9th Cir. 1982); MICHAEL D. ROSE & JOHN C. CHOMMIE, *FEDERAL INCOME TAXATION* 251 (3d ed. 1988).

46. See BORIS I. BITTKER & JAMES S. EUSTICE, *FEDERAL INCOME TAXATION OF CORPORATIONS AND SHAREHOLDERS* ¶ 16.20 (5th ed. 1987); C. RICHARD McQUEEN & JACK CRESTOL, *FEDERAL TAX ASPECTS OF BANKRUPTCY* § 5.01 (1990).

47. I.R.C. § 381 (1988).

48. I.R.C. § 382 (1988).

corporation's stock.<sup>49</sup> The effect of these provisions is to make an insolvent corporation's net operating loss carryover a highly firm-specific asset; it will vanish if it becomes separated from the corporation. Goodwill is another example of an asset with a high degree of firm specificity, but the value of the goodwill of an insolvent corporation is likely to be less than the value of its net operating loss carryover.

Despite these examples, most assets are probably not highly firm-specific, and so, most insolvent corporations will not have substantially greater going concern than liquidation values and, consequently, will not be good candidates for an effective reorganization.<sup>50</sup> A bankruptcy court that is called upon to determine whether a reorganization should be allowed to proceed<sup>51</sup> should start by attempting to identify those particular assets that have a greater going concern than liquidation value. Generally, unless the corporation has substantial amounts of firm-specific assets, there is nothing that a reorganization can accomplish and, thus, liquidation should be ordered. Alternatively, a bankruptcy court should allow a reorganization to proceed if the debtor can convince the court that, despite insolvency, it still has a viable business. In most instances, it is reasonable to infer from the fact of insolvency that the debtor is unfit to carry on its business; however, this inference may be overcome if the insolvency was caused by an unusual event or a particular problem that has been corrected. If the debtor is not able to furnish the court with such an explanation, however, the reorganization generally should not be allowed to go forward.

## V. REPAIRING THE CAPITAL STRUCTURE

If a reorganization is allowed to go forward, its central objective should be to repair the debtor's dysfunctional capital structure.<sup>52</sup> This

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49. See BITTKER & EUSTICE, *supra* note 46, at 16-1 to 16-101; JAMES S. EUSTICE ET AL., THE TAX REFORM ACT OF 1986 2-31 to 2-62 (1987); MCQUEEN & CRESTOL, *supra* note 46, at S-40 to S-58.

50. See *supra* note 30 (noting Professor LoPucki's observations concerning early Missouri Chapter 11 cases).

51. This occurs on motions to lift the automatic stay under 11 U.S.C. section 362(d) (1988), motions to convert to a Chapter 7 proceeding, or to dismiss a proceeding under 11 U.S.C. section 1112 (1988), and at confirmation of a reorganization plan under 11 U.S.C. section 1129 (1988).

52. The Securities and Exchange Commission has explained the purposes of corporate reorganizations as follows:

The reorganization of corporations is primarily an exercise in corporate

is done through the issuance of new securities to the corporation's creditors and shareholders and possibly to investors who provide additional capital for the reorganized corporation. As discussed above, the need for reorganization grows out of two conditions. First, the debtor's liabilities must be greater than the going concern value of its assets and, second, the going concern value of its assets must exceed its liquidation value.

The vanishing of the equity cushion leads to a crisis for the corporation because it creates a conflict of interest between the corporation's creditors and shareholders. The reorganization process resolves this crisis by restoring the equity cushion so that the shareholders in the reorganized corporation will have a stake in maximizing the corporation's value. Unless an adequate equity cushion is restored, there is a substantial risk that the reorganized corporation will again become insolvent, and that the conflict of interest between the corporation's creditors and shareholders will reemerge. The future is always uncertain, and an equity cushion needs to be large enough so that the reorganized corporation can absorb any fluctuations in its earnings that can reasonably be anticipated. A corporation should not be allowed to emerge from the reorganization process incapable of withstanding some adversity. A bankruptcy court thus has an obligation to make certain that the reorganized corporation has a capital structure with a sufficiently large equity cushion to protect the corporation's existing and future creditors from a substantial risk of future insolvency.<sup>53</sup> The statutory basis for this obligation can be

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finance and management. Only incidentally are reorganization proceedings law suits.

. . .

Reorganization involves all the problems of corporate finance and management: it requires an inquiry into the causes of the financial collapse of the corporation; and into its worth if salvaged as going concern; and, if reorganization instead of liquidation is determined upon, how this can best be accomplished upon a basis not only fair but economically sound. The answers to these questions will necessitate inquiry among other things into general economic factors, competitive conditions in the industry, its trend of demand, and its price policies, as well as inquiry into more immediate questions such as the quality of the debtor's management. More narrowly, there will have to be inquiry into earnings in the past and the prediction of future earnings, and chiefly on the latter basis, a determination of what would constitute a sound capitalization and financial structure.

SECURITIES AND EXCHANGE COMMISSION, REPORT ON THE STUDY AND INVESTIGATION OF THE WORK, ACTIVITIES, PERSONNEL AND FUNCTIONS OF PROTECTIVE AND REORGANIZATION COMMITTEES, Part VIII 1-2 (1940) [hereinafter SEC REPORT].

53. *Id.* at Part VIII 160 (stating that "no aspect of a reorganization plan merits greater consideration than its economic soundness. Sound capitalizations and financial structures are the ultimate determinants of effective reorganizations.") (footnote omitted); E. Merrick Dodd

found in the "feasibility requirement" in the Bankruptcy Code, which requires, as a condition of confirmation of a reorganization plan, that the plan "is not likely to be followed by the liquidation, or the need for further financial reorganization, of the debtor . . . ."<sup>54</sup>

Determining the appropriate level for the equity cushion in the reorganized corporation is a matter for the judgment of the bankruptcy court. An all-equity structure for the reorganized corporation would provide the largest possible equity cushion, but this usually is not necessary. Because the cost of debt is generally lower than the cost of equity,<sup>55</sup> the use of debt can provide a sensible amount of leverage to improve the reorganized corporation's earnings.<sup>56</sup> The taking on of debt increases risk, but most corporations manage with substantial levels of debt.<sup>57</sup> Furthermore, as long as the expected earnings of the reorganized corporation are reasonably stable, the risk of a subsequent insolvency can be reduced to a negligible level by maintaining an adequate equity cushion. As noted previously,<sup>58</sup> the size of the equity cushion that a corporation needs depends on the volatility of its expected earnings. Because the volatility of earnings can be expected to depend on the type of business in which a corporation is engaged, it is not surprising that firms in the same industry typically have similar capital structures.<sup>59</sup> A bankruptcy court should therefore

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Jr., Note, *Reorganization Through Bankruptcy: A Remedy for What?*, 48 HARV. L. REV. 1100, 1102 (1935) (observing that "[t]he first essential of a workable reorganization plan is that it shall, so far as is possible, provide the reorganized enterprise with a capital structure and cash resources which will give it a reasonable chance of financial rebirth as a solvent going concern.").

54. 11 U.S.C. § 1129(a)(11) (1988).

55. See *supra* notes 4-8, 15-16 and accompanying text (discussing the use of debt and equity for capital financing); see also JACKSON, *supra* note 1, at 223 n.44 (stating that "[i]t . . . is by no means clear that imposing an all common capital structure on a firm—even if subsequently recapitalized—has no costs.").

56. Note, *The Proposed Bankruptcy Act: Changes in the Absolute Priority Rule for Corporate Reorganizations*, 87 HARV. L. REV. 1786, 1795 (1974) (observing that "a capitalization consisting solely of stock will seldom be proposed, [sic] because there are substantial economic advantages to the inclusion of debt in the capital structure.") (footnote omitted). See *supra* notes 4-8 and accompanying text (observing that the use of debt for capital financing improves the rate of return for shareholders).

57. See *supra* note 3 (noting that the debt-to-asset ratio dramatically increased for all U.S. corporations between 1937 and 1979).

58. See *supra* note 15 (observing that in 821 corporations sampled, firm volatility is significantly and negatively related to firm leverage ratios).

59. See Bradley et al., *supra* note 4, at 869 (stating that "almost 54% of the cross-sectional variance in firm leverage ratios can be explained by industrial classification. There is more variation in mean leverage ratios across industries than there is in firm leverage ratios within industries.") (footnote omitted).

look at capital structures of other corporations in the same industry, as well as at estimates of the reorganizing corporation's future earnings, to determine an appropriate capital structure for the corporation.<sup>60</sup>

There are essentially two ways to generate the equity cushion needed to restore a sound capital structure to an insolvent corporation. The most straightforward approach is to retire the interests of the shareholders and the most junior of the creditors, and then to issue a mix of stock and debt securities to the senior creditors.<sup>61</sup> This is illustrated in Figure 3. With the creditors of the formerly insolvent corporation owning the stock that constitutes the residuary interest in the reorganized corporation, there will be an equity cushion to assure that the interests of shareholders and creditors coincide and are in line with the goal of maximizing the reorganized corporation's value. One potential drawback to this approach is that it can be expected that many creditors will have a preference for holding debt rather than equity and might not want to become owners of the reorganized corporation.<sup>62</sup> Those creditors that have especially strong preferences

60. *Id.* at 877 (concluding that "the strong finding of intra-industry similarities in firm leverage ratios, and persistent inter-industry differences with the highly significant inverse relation between firm leverage and earning volatility, tends to support the modern balancing theory of optimal capital structure.").

61. POSNER, *supra* note 31, at 378. Judge Posner explains that:

[T]he company may have a viable future, short or long, which it can get to it [sic] if it can just wipe out its current debt. One way of doing so is convert that debt into equity capital, at which point the debt will cease being a fixed cost and thus cease preventing the company from meeting its other expenses. A bankruptcy reorganization does this.

*Id.*; see also Note, *Distress-Contingent Convertible Bonds: A Proposed Solution to the Excess Debt Problem*, 104 HARV. L. REV. 1857, 1870 (1991) (recommending that bondholders and debtors contract for the automatic conversion of debt into equity when the equity value falls below a specified threshold).

62. Professor LoPucki describes some of the practical problems that creditors might face in assuming ownership as follows:

A creditors' committee is a clumsy device for seeking venture capital. The committee is without reasonable access to the business or adequate means of evaluating it for purchase. Because purchase by the creditors would leave the owner-managers with nothing, the unsecured creditors can expect no cooperation from them—and perhaps a little treachery. The procedure for purchase probably is structured by the debtor in such a way that the unsecured creditors must commit to pay a certain price before confirmation and then accept the business in whatever condition the (then) disgruntled debtor would leave it after confirmation. Even if the unsecured creditors could overcome all of these obstacles, the business may not have much value to them because they will not have the intimate knowledge of the business or the business contacts and business relationships of the current owner-managers—knowledge, contacts, and relationships which were acquired at the

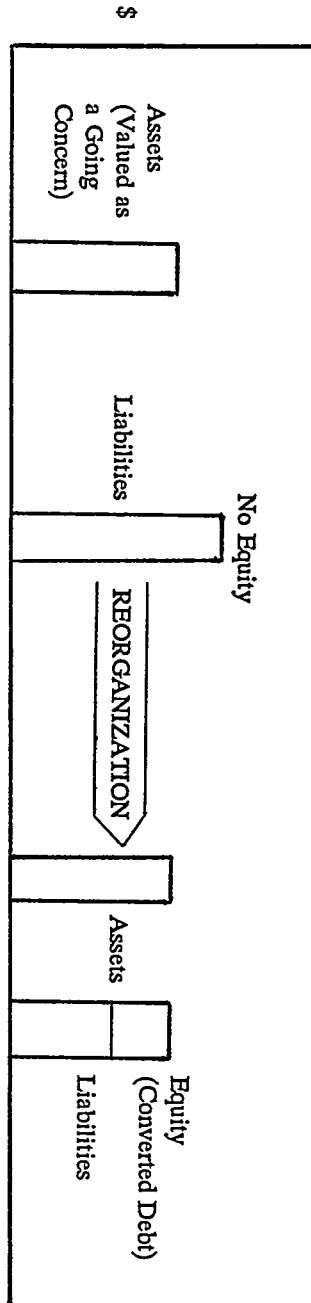


Figure 3. Reorganization by Converting Some Debt to Equity

debtor's expense.  
LYNN M. LOPUCKI, STRATEGIES FOR CREDITORS IN BANKRUPTCY PROCEEDINGS 416 (1985).

for debt can sell their shares and purchase debt interests in other entities; however, this will normally entail some transaction costs, such as brokers' commissions.<sup>63</sup>

Another approach is for an outside investor (or group of investors) to contribute capital for the equity cushion after the former stock and debt in excess of the going concern value of the insolvent corporation's assets have been retired. The outside investor would then receive all the stock in the newly reorganized corporation. This is illustrated in Figure 4. Having furnished capital that is now at risk, the outside investor's interest would lie in maximizing the value of the reorganized corporation and would thus coincide with the interests of the creditors. An advantage that this approach offers is that, unlike the former creditors of the insolvent corporation, the outside investor is presumably interested in assuming a shareholder's role in the reorganized corporation. This approach could also be combined with the preceding approach by having some of the creditors furnish a part of the equity cushion by "credit bidding" a portion of their debt, with the outside investor contributing the remainder of what the bankruptcy court determines that the reorganized corporation needs for an adequate equity cushion.

Substantial costs are associated with either of these approaches. The nature of these costs is examined briefly in the next section, and then the reorganization process is compared to several alternatives that have been suggested recently by commentators.

## VI. ALTERNATIVES TO REORGANIZATION

Although a corporate reorganization is one way to conserve a surplus of going concern value over liquidation value in an insolvent corporation, it may not necessarily be the best way. A corporate reorganization is accomplished through an elaborate negotiation process among representatives of the creditors, management, and shareholders under the supervision of the bankruptcy court. It proceeds through the filing of reorganization plans, which are sent to creditors and shareholders for their approval, and which are ultimately submitted to the bankruptcy court for confirmation. It is a cumbersome process that is often slowed down by disputes over the valuation of the corporation's assets. The determination of the going concern value of the corporation's assets is generally a critical factor in this process.<sup>64</sup>

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63. See *infra* notes 64-119 and accompanying text (discussing transaction costs).

64. *E.g.*, *Consolidated Rock Prods. Co. v. Du Bois*, 312 U.S. 510, 524 (1941) (explain-

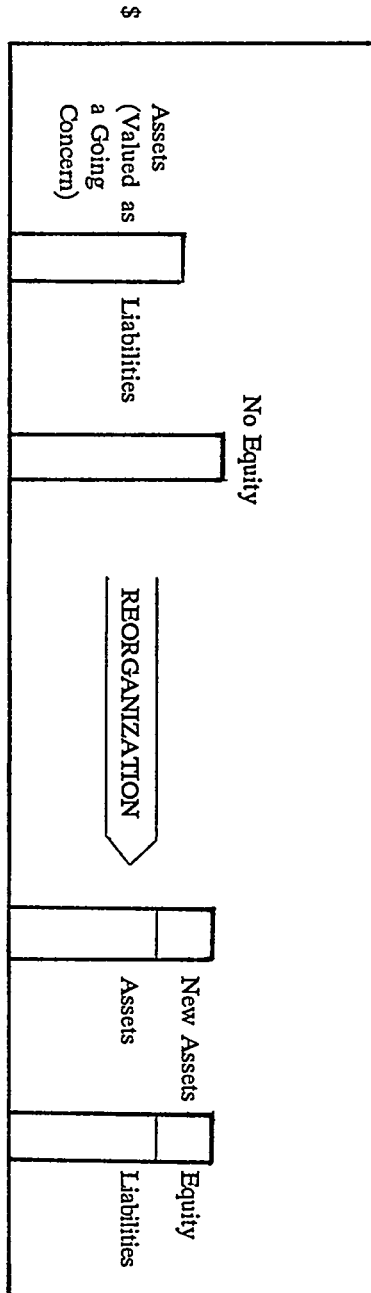


Figure 4. Reorganization Through Outside Investment

ing that "it is apparent that a determination of [asset] value must be made so that criteria will be available to determine an appropriate allocation of new securities between bondholders and stockholders in case there is an equity remaining after the bondholders have been made whole."); see also JACKSON, *supra* note 1, at 212.



Usually, a high valuation favors shareholders and junior creditors, while a low value favors senior creditors whose claims have priority over others.<sup>65</sup> Since determining going concern value "requires a prediction as to what will occur in the future, an estimate, as distinguished from mathematical certitude, is all that can be made."<sup>66</sup> The difficulty of determining going concern value is exacerbated by the adversarial setting in which the claimants negotiate their claims and interests in the reorganized corporation.<sup>67</sup> When a corporation's liabilities exceed its assets, shareholders have little or nothing to lose from delay, since all the costs of delay will be borne by the creditors. Both sides can be expected to try to exploit their bargaining positions to gain more than that to which they are entitled. This may make the negotiation process time consuming and expensive, and may also produce an undesirable capital structure.<sup>68</sup>

The reorganization process, therefore, entails substantial costs. Pointing to these costs, several observers have questioned whether the reorganization process is economically justifiable. They have also proposed a number of alternatives that rely on the market to assist in valuing the insolvent corporation's assets, and in allocating interests in the reorganized corporation among its creditors and shareholders.<sup>69</sup> These alternatives are analyzed below.

For several years, Douglas Baird and Thomas Jackson have advocated the liquidation of an insolvent corporation as a going concern as an alternative to reorganization.<sup>70</sup> They contend that selling the insolvent corporation as a going concern would provide a market

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65. See, e.g., J. Ronald Trost, *Corporate Bankruptcy Reorganizations: For the Benefit of Creditors or Stockholders?*, 21 UCLA L. REV. 540, 545 (1973) (observing that "[t]he participation of junior creditor and shareholder interests depends upon a finding of value in the business over and above that of the claims of the senior interests. This is where the battle is fought between the stockholders and the creditors."); Jerold B. Warner, *Bankruptcy, Absolute Priority, and the Pricing of Risky Debt Claims*, 4 J. FIN. ECON. 239, 244 (1977) (providing a numerical example to show how the "overvaluation of the firm [can result] in a redistribution of the firm's assets to junior claimholders which would not have taken place if the satisfaction of priorities were based upon the actual market value of the firm.").

66. *Consolidated Rock Prods. Co.*, 312 U.S. at 526.

67. JACKSON, *supra* note 1, at 216.

68. See *id.* at 215-17 (discussing the various costs associated with the negotiation process); Bebhuk, *supra* note 1, at 780 (noting that the reorganization process often results in an inefficient capital structure); Roe, *supra* note 1, at 536-45 (recognizing that the bankruptcy bargaining process could result in inferior, high-debt capital structures).

69. See *supra* note 1 (noting the leading commentators' proposals of alternative schemes for the reorganization process).

70. BAIRD & JACKSON, *supra* note 1, at 965-66; JACKSON, *supra* note 1, at 209-24; Baird, *supra* note 1, at 127.

pricing mechanism for determining going concern value in place of the negotiation and adjudication mechanism of the reorganization process. The market pricing mechanism would determine the corporation's going concern value more accurately and would also avoid the costs and delays of reorganization.

For similar reasons, Mark Roe and Lucian Bebchuk have suggested other market-based alternatives to the present reorganization process. Under Professor Roe's alternative,<sup>71</sup> the reorganized corporation would have an all-equity capital structure, and a sale of ten percent of its stock to the public would be used to establish its going concern value. The remainder of the stock would be distributed to the creditors in the order of priority of their claims, using the value from the "slice-of-capital" to determine the number of shares of stock that each creditor is entitled to receive.

Under Professor Bebchuk's alternative,<sup>72</sup> various rights in the reorganized corporation would be issued to the creditors and shareholders of the insolvent corporation, which they could exercise within a specified time. Whether they exercised these rights or let them expire would depend on their valuation of the insolvent corporation's assets as a going concern. Professor Bebchuk uses, as an initial example, a corporation that has two types of creditors, junior and senior, as well as shareholders, but he later generalizes his proposal to cover an arbitrary number of ranked classes of shareholders and creditors.<sup>73</sup> The shareholders would receive options to purchase the stock of the reorganized corporation at a price based on the total amount of junior and senior debt in the insolvent corporation. If they exercised the options, all the claims of creditors would be satisfied, and the shareholders would own the reorganized corporation. If the shareholders failed to exercise the options, then the junior creditors would receive options to purchase the stock of the reorganized corporation at a price based on the amount of senior debt. If the junior creditors exercised the options, the senior debt would be satisfied, but if the junior creditors failed to exercise the options, the senior creditors would receive all the stock in the reorganized corporation. The options issued to the shareholders and junior creditors would be transferable and could be traded on the market until their expiration date. Professor Bebchuk's alternative relies on the shareholders and junior creditors (or the pur-

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71. Roe, *supra* note 1, at 559.

72. Bebchuk, *supra* note 1, at 781-88.

73. *Id.* at 781-82, 800-01.

chasers of the options in the market) to value the corporation as a going concern. If the shareholders and junior creditors believe that the value of the insolvent corporation is greater than the amount of senior debt, they can purchase the corporation by exercising their options; otherwise, their options will expire and ownership of the corporation will go to the senior creditors.

Each of these alternatives avoids some of the disadvantages of the reorganization process, but each also introduces costs that the reorganization process avoids. These costs, which are analyzed below, have been almost entirely ignored by the commentators who have advocated these alternatives to reorganization.

*A. The Baird and Jackson Alternative:  
Liquidation as a Going Concern*

The main advantage that reorganization has over liquidation as a going concern is that reorganization avoids the transaction costs of arranging financing for the purchase of the corporation as a going concern. Carrying out a liquidation as a going concern would involve raising the capital for the purchase of the insolvent corporation, through either borrowing or stock sales, and then distributing this capital to the creditors of the insolvent corporation.<sup>74</sup> By reallocating the shares of the corporate pie among the existing creditors and shareholders, instead of paying off the claims of creditors, a reorganization avoids the costs of raising the capital necessary for purchasing the corporation. Depending on the circumstances, the costs of raising capital that are saved through reorganization may be greater than the cost of the reorganization process.

This advantage to reorganization is shown by the context in which the equity receivership, the forerunner of business reorganizations, arose. Equity receiverships developed out of the financial collapse of many railroad corporations in the latter half of the nineteenth century.<sup>75</sup> Raising the capital for the formation of the railroads was

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74. A liquidation as a going concern may be viewed as a special case of the reorganization process illustrated in Figure 4, in which new capital equal to the going concern value of the corporation's assets is contributed and then distributed to the creditors in order of their priority.

75. HARRY G. HENN, HANDBOOK OF THE LAW OF CORPORATIONS AND OTHER BUSINESS ENTERPRISES 828 (2d ed. 1970) (explaining that "[t]he equity receivership developed in the federal courts to reorganize corporations, especially railroads, in financial difficulties, to permit their continued operation and preserve their going concern value . . . . The whole proceeding was court-developed and evidenced remarkable judicial ingenuity."); see also De Forest

itself a colossal feat that required use of the modern corporate form.<sup>76</sup> When some of the railroads began to falter, the equity receivership was developed so that the vast railroad systems could be preserved.<sup>77</sup>

The distinctive problem caused by a railroad's insolvency was that it would have been very difficult or perhaps impossible to raise the capital necessary to finance its purchase as a whole so that it could be continued as a going concern.<sup>78</sup> As the Supreme Court ob-

Billyou, *Priority Rights of Security Holders in Bankruptcy Reorganization: New Directions*, 67 HARV. L. REV. 553, 556 (1954) (noting that "[u]ntil long after 1900, the story of corporate reorganization in America consisted chiefly of the story of railroad reorganization."); Stern, *supra* note 40, at 783 (stating that "[c]orporate reorganization emerged out of the courts of equity as part of the response to railroad insolvencies of the mid-nineteenth century."). The earliest report of an equity receivership's being granted appears to be *Collins v. Central Bank*, 1 Ga. 435 (1846), which arose out of a railroad insolvency. See Arthur H. Dean, *A Review of the Law of Corporate Reorganizations*, 26 CORNELL L.Q. 537, 538 (1941).

76. ADOLF A. BERLE & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* 12 (1932) (stating that "[r]ailroad construction, involving a heavy initial outlay of capital, almost necessitated recourse to the corporate form. Once the first short lines had been constructed, this form made possible the next step, consolidation into larger systems.").

77. Heuston, *supra* note 41, at 1199. Professor Alfred Heuston observed:

The federal equity receivership developed because of the necessity for continued operation of railroad and public utility properties pending the adjustment of difficulties with creditors. It spread to industrial corporations for a variety of reasons, including the increasing difficulty of liquidating at advantageous prices industrial properties which had been constructed for or adapted to specific purposes.

*Id.*; see also Stern, *supra* note 40, at 783 (explaining that when "[f]aced with multitudes descending to press their individual claims and threatening to dismember the functioning [railroads], [the courts of equity] began to fashion a procedure that would satisfy the calls both of equity and of the interested community. To this end, the venerable common-law property remedies of receivership and foreclosure were pressed into service.").

78. Professor Blum described this problem as follows:

Large distressed corporations cannot be sold intact, and selling them piecemeal changes the commodity by destroying whatever value arises because a concern is a going thing and not a random collection of assets . . . . Our railroads, which periodically have been in financial difficulties, are most frequently used to illustrate the explanation. A troubled road, it is said, cannot be sold for more than a token sum because it is too big to sell in one piece and too integrated to break up into smaller units. The proof of its unsalability consists of pointing out why it would be difficult to find a purchaser. From this muster a pair of observations or assertions emerge: Rarely does any one person or private group have the wealth to finance acquisition of a railroad, while a public sale through flotation of new securities is impractical inasmuch as individual investors are said to be averse to buying into a distressed road.

Walter J. Blum, *The Law and Language of Corporate Reorganization*, 17 U. CHI. L. REV. 565, 566-67 (1950) (footnotes omitted). Dean Clark offered the following explanation of the development of the equity receivership:

The fourth phase of development occurred in the United States when the equity

served in an early case:

The enormous value of corporate property often makes it impossible for one, or a score, or a hundred bondholders to purchase, and equally so for stockholders to protect their interests. A combination is necessary to secure a bidder and to prevent a sacrifice. Cooperation being essential, there is no reason why the stockholders should not unite with the bondholders to buy in the property.<sup>79</sup>

The equity receivership enabled an insolvent corporation's assets to be sold to its existing creditors and shareholders without their having to raise the capital for the purchase price. It was therefore analogous to a mortgagee's credit bid at a foreclosure sale.<sup>80</sup> Assuming that the

receivership evolved to the point where all or many of the creditors of the insolvent business debtor could themselves act as the buyers of the business—which would be kept as a going concern, if that made sense—using not cash as the means of payment, but their creditor claims, such as notes, bonds, debentures, or the like, usually valued at face value plus accrued interest. The creditors could, in effect, initiate a transformation of their debt holdings into stock, or into some mixture of new debt and stock, and at the same time exercise their contractual rights of priority among themselves and against the residual claimants (the old shareholders) in a way that was just as definitive as a real liquidation sale to an outside buyer. This procedure made economic sense whenever there were no or few potential outside buyers with accurate and timely information about the true state of affairs and the future prospects of the business, and when the process of searching for and informing outside buyers would itself be very expensive.

Robert C. Clark, *The Interdisciplinary Study of Legal Evolution*, 90 YALE L.J. 1238, 1252 (1981) (footnotes omitted); see also Stern, *supra* note 40, at 798-99, stating that:

[t]he early failures of the market for insolvent railroads are easily understood. The general unavailability of local venture capital and the size of the insolvent railroads put such purchases beyond the reach of virtually all potential bidders other than the debtholders themselves. Outside bidders thus appeared only occasionally, even during the early years of the twentieth century when the national securities markets were beginning to take shape.

*Id.* (footnotes omitted).

79. *Northern Pac. Ry. v. Boyd*, 228 U.S. 482, 504 (1913); see also *Kansas City Terminal Ry. v. Central Union Trust Co.*, 271 U.S. 445, 455 (1926) (observing that it is practically "impossible to sell the property of a great railroad for cash; and, generally, the interests of all parties, including the public, are best served by cooperation between bondholders and stockholders."). Similarly, the Securities Exchange Commission noted in the SEC REPORT: "Of course, numerous other reasons may make for a decision to reorganize rather than liquidate . . . [A] corporation may be so large that its sale would bring forth not merely inadequate bids, but no bids at all. It is commonplace that a railroad cannot be sold like a suburban acre." SEC REPORT, *supra* note 52, at Part VIII 7. Judge Frank expressed the same point as follows: "\$30,000,000 does not grow on bushes. It is almost impossible to obtain—especially as it is usually impossible to induce any banking group to compete with those in charge of the reorganization." Jerome Frank, *Some Realistic Reflections on Some Aspects of Corporate Reorganization*, 19 VA. L. REV. 541, 554 (1933).

80. See James N. Rosenberg, *A New Scheme of Reorganization*, 17 COLUM. L. REV.

receivership court would allow it, the lawyers could restructure an insolvent corporation without having to enlist the aid of underwriters and investment bankers.

Professor Baird and Dean Jackson recognize that there may have been a need for the equity receivership in the late nineteenth century because of the difficulty of raising capital then. However, they question whether a need for the reorganization process still exists in today's economy, where organized markets enable billions of dollars to be raised from the public and where even some individuals, such as Donald Trump, can acquire large companies for hundreds of millions of dollars.<sup>81</sup> Costs are involved in running even an efficient market, however, and in some circumstances these costs may be greater than the costs of the reorganization process.

Determining the feasibility and cost of raising capital is an empirical question that is complicated by the variety of sources of available capital. Loans from financial institutions are one source. Although some loans may state figures for the transaction costs separately from the interest rate, many do not and, so, determining the transaction costs for loans is not feasible. Data on the costs of raising capital for publicly held corporations may be obtained, however, where a third party, such as an underwriter, is involved as an intermediary between investors and issuers of securities.<sup>82</sup>

Since its establishment in 1933, the Securities and Exchange Commission has conducted a number of studies of the costs of underwriting debt and equity securities.<sup>83</sup> These studies have generated a

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523, 523-26 (1917) (describing the equity receivership process); Stern, *supra* note 40, at 798, stating that:

[I]nstead of importing the less familiar, but more circumspect, device of the English chancery courts, the American courts of equity simply extended to railroad foreclosures their standard solution to problems of insufficient competition at auctions. Thus, they began in the latter part of the nineteenth century to write decrees of foreclosure that, as a matter of course, authorized mortgagees to bid at foreclosure.

*Id.* (footnotes omitted).

81. BAIRD & JACKSON, *supra* note 1, at 965-66.

82. For an excellent discussion of the underwriting process, see 1 LOUIS LOSS & JOEL SELIGMAN, *SECURITIES REGULATION* 315-80 (3d ed. 1990).

83. SECURITIES AND EXCHANGE COMMISSION, *COST OF FLOTATION OF REGISTERED ISSUES 1971-1972* (1974) [hereinafter *COST OF FLOTATION 1971-1972*]; SECURITIES AND EXCHANGE COMMISSION, *COST OF FLOTATION OF REGISTERED EQUITY ISSUES 1963-1965* (1970) [hereinafter *COST OF FLOTATION 1963-1965*]; SECURITIES AND EXCHANGE COMMISSION, *COST OF FLOTATION OF REGISTERED ISSUES 1951-1955* (1957) [hereinafter *COST OF FLOTATION 1951-1955*]; SECURITIES AND EXCHANGE COMMISSION, *PRIVATELY-PLACED SECURITIES-COST OF FLOTATION* (1952) [hereinafter *PRIVATELY-PLACED SECURITIES*]; SECURITIES AND

large amount of data that show many factors that affect underwriting costs, and also great variations in underwriting costs between offerings. One important variable is the nature of the security—common stock, preferred stock, or bond. The most recent SEC study, which covers registered issues in 1971 and 1972, showed an average “cost of flotation” as a percentage of gross proceeds of 12.43% for common stock, 1.91% for preferred stock, and 1.59% for debt.<sup>84</sup> Significant economies of scale were observed; for example, the cost of flotation for common stock as a percentage of gross proceeds ranged from 23.59% for issues of less than \$500,000 down to 3.19% for issues between 100 million and 500 million dollars.<sup>85</sup> Another factor that appeared to have a substantial effect on the cost of flotation was the risk differential between offerings;<sup>86</sup> this factor was difficult to quantify and measure.<sup>87</sup> Finally, the cost of flotation was affected by the method of underwriting used (firm commitment or best efforts);<sup>88</sup> whether the offering was primary or secondary;<sup>89</sup> and whether the issue was offered to the general public, either through security dealers or directly, or only to existing security holders, either through security dealers or directly.<sup>90</sup> The results of the 1971-1972 study are in general agreement with the findings of previous SEC cost-of-flotation studies.<sup>91</sup>

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EXCHANGE COMMISSION, COST OF FLOTATION 1945-1949 (1951) [hereinafter COST OF FLOTATION 1945-1949]; SECURITIES AND EXCHANGE COMMISSION, COST OF FLOTATION FOR REGISTERED SECURITIES, 1938-1939 (1941) [hereinafter COST OF FLOTATION 1938-1939]; SECURITIES AND EXCHANGE COMMISSION, COST OF FLOTATION FOR SMALL ISSUES, 1925-1929 AND 1935-1938 (1940) [hereinafter COST OF FLOTATION FOR SMALL ISSUES].

84. COST OF FLOTATION 1971-1972, *supra* note 83, at 9, 24, 29.

85. *Id.* at 9.

86. *Id.* at 6 (stating that “it has often been observed that rates of compensation differ substantially for issues with approximately the same magnitude of gross proceeds. This phenomenon may be attributable to the risks associated with both the underwriting and distribution of issues of differing quality.”).

87. *Id.* at 6-7.

88. With firm commitment underwriting, the underwriter purchases the entire issue and then resells it to the public; the underwriter therefore bears the risk that the securities will not sell for their expected price. In contrast, with best efforts underwriting, the underwriter sells the securities as the issuer’s agent and the issuer bears the risk that they will not sell for their expected price. LOSS & SELIGMAN, *supra* note 82, at 341-42.

89. Primary offerings are sales of securities by the issuer with the issuer receiving the proceeds, while secondary offerings are sales of securities by shareholders or bondholders. COST OF FLOTATION 1971-1972, *supra* note 83, at 16.

90. *Id.* at 14-24.

91. *Id.* at 8. For example, the 1945-1949 study found that the average cost of flotation as a percentage of gross proceeds was 9.61% for common stock, 4.21% for preferred stock, and 1.30% for debt. COST OF FLOTATION 1945-1949, *supra* note 83, at 5; *see also* LOSS & SELIGMAN, *supra* note 82, at 337, stating that:

This empirical data indicate that, depending on the amount of capital raised, the type of security, and the means of distribution, the costs of raising capital may be substantial.<sup>92</sup> An especially significant finding of the 1971-1972 SEC study was that underwriting costs are higher for riskier securities.<sup>93</sup> Investing in insolvent corporations is widely perceived to be, and undoubtedly is, riskier than investing in solvent corporations.<sup>94</sup> Accordingly, it is likely that the costs of raising capital for the purpose of financing the liquidation of an insolvent corporation as a going concern would be substantially larger than the underwriting costs for the solvent corporations that were analyzed in the SEC studies.

One cannot say from the SEC data what the costs of raising capital would be for any particular insolvent corporation, or whether it would be greater than the costs incurred during the course of a reorganization process. Nevertheless, the SEC studies do suggest that, for many insolvent corporations, the costs of raising the capital to liquidate a corporation as a going concern are greater than the costs of reorganization. It is therefore important for bankruptcy judges and attorneys to be aware of the tradeoffs between liquidation and reorganization. In many cases, they might even want to obtain information from underwriters about the costs of raising capital to liquidate an insolvent corporation as a going concern. If the liquidation costs are

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[t]he difference between the price at which members of the public buy an underwritten security and the amount received by the issuer is known as the "gross spread." The spread may range in size from a fraction of 1 percent to 10 percent or more. Typically, initial public offers will have spreads of 7 to 10 percent.

*Id.* (footnote omitted).

92. See MASULIS, *supra* note 25, at 6 (stating that "[t]he flotation costs associated with security offerings to the public represent a significant fraction of gross proceeds from the sales.").

93. See COST OF FLOTATION 1971-1972, *supra* note 83, at 6-14; see also MASULIS, *supra* note 25, at 6-7 (stating that "[m]ore interesting is the SEC finding that flotation costs of nonconvertible debt issues rise with a drop in debt rating class, even after taking into account issue size. This evidence taken as a whole suggests that riskier securities have higher proportional flotation costs."); Robert Hansen, *Evaluating the Costs of a New Equity Issue*, 4 MIDLAND CORP. FIN. J. 42, 51-52 (1986) (explaining that "[t]he empirical evidence indicates that there are indeed risk premiums contained in the underwriting spread. In general, the greater the historical volatility of the issuing company's stock price, the larger the underwriting spread."). The Hansen article also sets out an equation for approximate calculations of flotation costs that has these costs rising proportionally with the riskiness of the offering. *Id.* at 55.

94. See Warner, *supra* note 65, at 240 (empirical data showed that the risk associated with a sample of *bonds* of railroads in bankruptcy was approximatedly equal to the risk of the market index of *stocks*).



lower than the expected costs of the reorganization process, then liquidation should be ordered. Indeed, it would appear that liquidation would be required under the Bankruptcy Code's "best interests of creditors"<sup>95</sup> test in these circumstances.<sup>96</sup>

Reorganization is certainly not appropriate for every insolvent corporation, but there is good reason to believe that it is appropriate for some. What makes the difference is the magnitude of transaction costs.<sup>97</sup> Just as the transaction costs that are incurred in bringing assets together may contribute added value to the asset side of the balance sheet, the transaction costs that are incurred in raising the capital necessary to bring the assets together may contribute added value to the liability side of the balance sheet. Even though a corporation is insolvent, the added value locked inside its aggregation of assets may make piecemeal liquidation uneconomical. Likewise, the added value locked inside its capital structure may make liquidation as a going concern uneconomical. The justification for the reorganization process is that it salvages part of the existing capital structure, rather than wiping it out entirely and necessitating starting from scratch. The reorganization process thereby avoids some of the costs of refinancing the entire corporation.<sup>98</sup> The presence of transaction costs also hampers the alternatives to reorganization suggested by Professors Roe and Bebchuk, which are discussed below.

### B. *The Roe Alternative: The Slice of Capital Sale*

Professor Roe's alternative employs the market to determine the going concern value of an insolvent corporation's assets.<sup>99</sup> He sug-

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95. This requirement is found in 11 U.S.C. section 1129(a)(7)(A)(ii) (1988), which provides that a bankruptcy court may confirm a plan of reorganization only if each holder of a claim "will receive or retain under the plan . . . property of a value . . . that is not less than the amount that such holder would so receive or retain if the debtor were liquidated under chapter 7 of this title . . . ."

96. See Thomas H. Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors' Bargain*, 91 YALE L.J. 857, 893 (1982) (noting that "it would seem that a properly conceived-of Chapter 7 proceeding would require the entity to be sold (i.e., liquidated) as a unit rather than piecemeal whenever its going concern value exceeds its piecemeal liquidation value.") (footnote omitted).

97. Cf. JACKSON, *supra* note 1, at 220 n.35 (noting that "[i]nvestment bankers, for example, are not inexpensive in mergers or public offerings and are likely to be expensive in bankruptcy proceedings as well. Yet they *are* used in consensual deals; the question is their cost relative to the costs of the current bankruptcy process.") (emphasis in original).

98. Cf. Baird, *supra* note 1, at 139 (noting that "[t]he justification for a reorganization must focus on showing the higher costs of selling the firm to a third party.").

99. Roe, *supra* note 1, at 559.

gests that a bankruptcy court should have an underwriter conduct a public sale of a slice of capital (say, ten percent of the total stock)<sup>100</sup> of the reorganizing corporation. Then the court could use the selling price to value the total assets and distribute the remaining shares of stock to the creditors in order of their priority. The advantages that Professor Roe sees in this alternative to reorganization are the following: (1) it avoids the costs and delays of negotiation and adjudication; and (2) the market's valuation of the corporation's assets is likely to be more accurate than that of the bankruptcy court.<sup>101</sup> However, in evaluating Professor Roe's alternative, the transaction costs that a public sale of a slice of capital would entail have to be weighed against the costs and delays of negotiation and adjudication. Although the costs of floating only a slice of capital would be less than those for floating all the corporation's stock,<sup>102</sup> there surely ought to be a cheaper way for a bankruptcy court to obtain a reasonably accurate appraisal of the corporation's assets than by actually carrying out a public sale of even a portion of its stock. In the underwriting process itself the underwriters must appraise the securities in order to determine the terms of the underwriting agreement, including the price to be paid to the issuer.<sup>103</sup> Thus, a bankruptcy court could determine the going concern value of an insolvent corporation's assets by requesting bids from several underwriters.

Professor Roe's second concern is that the bankruptcy court might not value the insolvent corporation's assets as accurately as the market would. He contends that if the reorganization plan calls for a substantial amount of debt, an incorrect valuation may cause the reorganized corporation to have an unsound capital structure, which may lead to a second insolvency.<sup>104</sup> However, neither the market's

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100. *Id.* at 577.

101. *Id.* at 599. Professor Roe states:

Such an approach would slash through the tangled bankruptcy knots of valuation, distributional conflicts, and recapitalization. The wisdom of replacing the current means of valuation in bankruptcy with this market-based approach is initially dependent on the relative accuracy, speed, and cost of market valuation when compared to the current mechanisms.

*Id.* at 559.

102. *See supra* notes 83-93 and accompanying text. The SEC cost of flotation studies show economies of scale that bring underwriting costs as a percentage of gross proceeds down as the size of the offering increases, but the total underwriting costs increase with the size of the offering.

103. *See LOSS & SELIGMAN, supra* note 82, at 331-37.

104. Professor Roe expresses this point as follows:

[B]ecause of a lack of judicial expertise, a potential need to rely on the parties,

nor the bankruptcy court's valuation of the insolvent corporation's assets will necessarily be accurate in the sense of exactly matching the reorganized corporation's actual future earnings. If the level of debt in the reorganized corporation is excessive, there is a risk of future insolvency whether the market or the bankruptcy court places an incorrect valuation on the insolvent corporation's assets. Fortunately, the valuation need not be exact to protect against the risk of future insolvency as long as the reorganized corporation has an adequate equity cushion. However, this is not to say that the valuation of the insolvent corporation's assets as a going concern is unimportant. As is illustrated in Figures 3 and 4, the valuation may determine whether particular claims of creditors are discharged or are provided for in the reorganization plan so that they will be satisfied eventually by the reorganized corporation. Although accurate valuation is important, Professor Roe's method is probably less cost effective than other methods, such as the bankruptcy court's analyzing bids from underwriters or conducting a valuation hearing.

Once a going concern valuation is obtained, Professor Roe's alternative calls for distribution of the stock of the reorganized corporation that remains after the slice of capital sale to the insolvent

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and the ease with which bankruptcy litigation problems can be resolved by using complex capital structures, there is a substantial basis for concluding that action in the reorganization court seems unlikely to lead to a capital structure as sound as those ordinarily derived from marketplace bargains. More important, the reorganization court seems unlikely to lead to quick resolution of the problem of recapitalization.

Roe, *supra* note 1, at 548; *see also id.* at 600-02. Dean Jackson has a similar criticism: [T]here is likely to be a cost to valuations by a bankruptcy judge that is not present in marketplace valuations. Substantial evidence suggests that valuations by bankruptcy judges are systematically too high. Most firms that reorganize fail shortly thereafter, notwithstanding the fact that a bankruptcy judge has made a finding of "feasibility." There is no good reason to believe that bankruptcy judges are particularly good valuers. And there are, moreover, some reasons to think that even good-intentioned bankruptcy judges may be overly optimistic about a firm's chances of success—and hence its value. Cognitive processing errors may lead judges, like most individuals, to underestimate risks and to overestimate chances of success. Few corrective constraints on such cognitive biases exist. Whereas market participants lose money when they make an incorrect decision, no similar consequence befalls a bankruptcy judge. Nor are there likely to be effective constraints analogous to the discipline a market imposes on buyers who make systematic errors.

JACKSON, *supra* note 1, at 220-21 (footnotes omitted); *see also* Warner, *supra* note 65, at 244 (observing that "[t]here is, in fact, evidence that overvaluation in corporate reorganizations has been more frequent than 'undervaluation,' and has resulted in substantial deviations from the usual textbook notion of priority.") (footnote omitted).

corporation's former creditors in order of their priority. The most senior claims would be converted to stock in the reorganized corporation based on the price obtained at the slice of capital sale, while junior claims would be discharged and the insolvent corporation's stock would be canceled. This aspect of Professor Roe's alternative is a variation of the conversion of debt to equity method of reorganization illustrated in Figure 3.<sup>105</sup> This method of reorganization has the advantage of avoiding many of the transaction costs entailed in liquidating an insolvent corporation as a going concern. Its disadvantage, however, is that many creditors might prefer to hold debt in the reorganized corporation instead of stock, particularly since they had been creditors of the corporation before the insolvency. Of course, the creditors could sell their shares to other investors who want to be shareholders (such as former shareholders of the insolvent corporation), and purchase debt in another corporation. But this would entail transaction costs in the form of brokerage commissions. These transaction costs could be avoided through the Chapter 11 reorganization process described in the preceding section of this Article by permitting the other investors to contribute new capital to the reorganizing corporation in exchange for stock.

Professor Roe also would require the reorganized corporation to have an all equity (or nearly all equity)<sup>106</sup> capital structure in order to eliminate the possibility of a future insolvency.<sup>107</sup> Debt is usually a cheaper source of financing than equity, however, and accordingly, insisting on an all-equity capital structure seems ill-advised.<sup>108</sup> As long as debt is kept at an acceptably low level through the maintenance of an adequate equity cushion, the risk of future insolvency can be minimized.

In summary, Professor Roe's alternative has several disadvantages compared to the traditional Chapter 11 reorganization process. The sale of a slice of capital to determine a corporation's going concern

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105. See *supra* notes 61-63 and accompanying text.

106. Roe, *supra* note 1, at 595 (observing that "de minimis debt levels might be allowed.").

107. *Id.* at 600 (explaining that "[t]here seems little to undermine the view that were a bankruptcy court most interested in maximizing the post-reorganization viability of the bankrupt, it would seek all-common-stock recapitalization.").

108. See *supra* text accompanying notes 4-8, and references cited in notes 15-18 (supporting the view that debt financing by a firm is generally preferred over equity, although the issue continues to be a widely debated one in financial theory); see also JACKSON, *supra* note 1, at 223 n.44 (explaining that "[i]t . . . is by no means clear that imposing an all common capital structure on a firm—even if subsequently recapitalized—has no costs.").

value would entail transaction costs that may make it more expensive than the taking of testimony at a valuation hearing. The insolvent corporation's creditors might not want to exchange their debt claims for shares of stock in the reorganized corporation, as Professor Roe's alternative would require them to do. Finally, an all-equity capital structure may not be the best choice for the reorganized corporation. Nevertheless, Professor Roe's alternative would be an appropriate method of reorganization provided that: the former creditors were satisfied with receiving stock instead of debt in the reorganized corporation; they wanted the corporation to have an all-equity capital structure; and the former shareholders did not want to contribute new capital to the reorganizing corporation.

### C. *The Bebchuk Alternative: Issuance of Options*

Professor Bebchuk's alternative involves issuing options to shareholders and junior creditors to purchase stock in the insolvent corporation for the amount of the senior debt. This alternative is essentially a variation of liquidation as a going concern. The exercise of the options would wipe out the existing capital structure and replace it with an all-equity capital structure. Accordingly, the exercise of the options would involve the same sorts of transaction costs that liquidation as a going concern would.<sup>109</sup>

For the shareholders to exercise their options, they would collectively have to raise an amount of capital equal to the total debt of the insolvent corporation. If, as is likely, the shareholders decided that the going concern value of the insolvent corporation was less than the total debt, they would not exercise their options, and the junior creditors would be given the opportunity to exercise theirs.<sup>110</sup> For the junior creditors to exercise their options, they would collectively have to raise an amount of capital equal to the total amount of senior debt.

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109. Bebchuk, *supra* note 1, at 775. Professor Bebchuk notes a possible objection to his proposal that some shareholders or junior creditors might be reluctant or lack enough wealth to invest in the reorganized corporation. He responds to this objection by observing that the amounts needed would generally be small relative to the wealth of the investors, and that if they did have a liquidity problem, the investors could borrow the necessary money. He does not address the transaction costs that would be entailed in raising the capital for the exercise of the options. *Id.* at 796-97.

110. Presumably, reorganization would not be necessary if the going concern value of the corporation exceeded its total debt, since there would be a positive equity against which the corporation could borrow in order to pay debts as they became due. *See supra* Figure 1 and notes 19-20 and accompanying text (explaining generally that a positive equity account is necessary for a corporation to have access to credit).

They could be expected to do so only if they believed that the amount of senior debt was less than the going concern value of the corporation's assets. Since the junior creditors would not need any capital to satisfy their own claims, the amount of capital that they would have to raise to exercise their options could much be less than the going concern value of the corporation's assets, which is what would be required if the corporation were liquidated as a going concern. Depending on the amount of senior debt, however, the amount of capital necessary could be quite large and, thus, the transaction costs that would be involved could be substantial.

Assuming that either the shareholders or the junior creditors exercised their options, the primary distinction between Professor Bebchuk's alternative and liquidation as a going concern is the source of the capital used to purchase the assets of the insolvent corporation. Under Professor Bebchuk's alternative, the capital would come from existing shareholders or junior creditors of the insolvent corporation, while, for liquidation as a going concern, the capital would come from a third party or from the public at large. Consequently, Professor Bebchuk's alternative resembles a direct rights offering (in which capital is raised by distributing options to purchase stock to existing shareholders)<sup>111</sup> as opposed to an underwritten public offering.

One would not expect transaction costs for direct offerings to be significantly lower than for underwritten public offerings, but empirical data from the SEC studies, as well as from other sources, shows transaction costs for direct offerings to be approximately half of those

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111. See Clifford W. Smith Jr., *Investment Banking and the Capital Acquisition Process*, 15 J. FIN. ECON. 3, 15 (1986) (stating that "[i]n a rights offering, each stockholder receives options to buy newly issued securities. One right is issued for each share held."). Professor Hansen describes a direct rights offering as follows:

[T]he direct rights offering . . . is distinguished by the fact that the corporation is offering the new common stock directly to and through its current stockholders. Initially, each owner is given a subscription "right" (which is created by splitting each old share into another share and one right) to purchase a pro rata amount of the new common stock from the company at a fixed subscription price. This subscription right is thus a valuable call option on the newly issued shares, although the option is typically short-lived, lasting only the typical two- or three-week subscription period. During this subscription period, new shares are sold through the exercise of subscription rights. The subscriber pays the corporation the subscription price for each subscribed share and simultaneously cashes in the appropriate number of subscription rights.

Robert Hansen, *Evaluating the Costs of a New Equity Issue*, 4 MIDLAND CORP. FIN. J. 42, 43 (1986); see also COST OF FLOTATION 1971-1972, *supra* note 83, at 80 (stating that "[r]ights offerings refer to corporate offerings to existing shareholders prior to a public distribution.") (emphasis in original).

for underwritten public offerings.<sup>112</sup> Thus, it could be that the transaction costs for Professor Bebchuk's alternative would be substantially lower than the costs of liquidation as a going concern. On the other hand, it is probable that direct offerings would not be feasible in the business reorganization context. Despite their lower costs, direct offerings are much less common than underwritten public offerings,<sup>113</sup> and this has puzzled financial economists for some time.<sup>114</sup> The prevailing explanation for the lower costs of direct rights offerings appears to be that underwriters perform a monitoring or certification function, in addition to their marketing function, when securities are sold to the general public in an underwritten offering.<sup>115</sup> Although

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112. COST OF FLOTATION 1971-1972, *supra* note 83, at 20-21 (positing that total costs of flotation as a percentage of gross proceeds were 6.72% for rights offerings, as compared to 12.43% for offerings to the general public); Smith, *supra* note 111, at 15 (stating that "the out-of-pocket expenses of an equity issue underwritten by an investment banker are from three to thirty times higher than the costs of a non-underwritten rights offering."); Clifford W. Smith, *Alternative Methods for Raising Capital: Rights Versus Underwritten Offerings*, 5 J. FIN. ECON. 273, 277 (1977) (noting that costs of flotation as a percentage of gross proceeds were 2.45% for rights offerings as compared to 6.17% for offerings to the general public); *see also* Hansen, *supra* note 111, at 45 (presenting a chart comparing flotation costs as a percentage of gross proceeds for rights offerings and offerings to the general public); Robert S. Hansen & John M. Pinkerton, *Direct Equity Financing: A Resolution of a Paradox*, 37 J. FIN. 651, 653 (1982) (stating that "in periodic Securities and Exchange Commission studies . . . reported costs as a percentage of issue size for [rights] offerings generally run 4-10 percent less than corresponding costs for fully underwritten public offerings.").

113. Hansen & Pinkerton, *supra* note 112, at 651 (noting that "periodic Securities and Exchange Commission studies . . . generally report that less than 5 percent of all new common stock is offered nonunderwritten to current owners.").

114. *See id.* at 651, which opens with the following statement of the problem:

One of the unresolved issues confronting financial economists is the following equity financing paradox. Historically, U.S. firms have overwhelmingly elected to employ investment bankers to underwrite and publicly distribute their new equity offerings. Yet the reported flotation costs as a percent of issue size have been substantially less for nonunderwritten privileged subscription (direct) offers.

*Id.*

115. *See* James R. Booth & Richard L. Smith, *Capital Raising, Underwriting and the Certification Hypothesis*, 15 J. FIN. ECON. 261, 280 (1986) (stating that "[t]his paper advances the 'certification hypothesis' to explain the role of the underwriter in the capital raising process. Due to potential opportunistic behavior by insiders, underwriters can be employed to certify that issue price is consistent with inside information."); James R. Booth & Richard L. Smith, *The Certification Role of the Investment Banker in New Issue Pricing*, 4 MIDLAND CORP. FIN. J. 56, 56 (1986) stating that:

[t]his article provides a rationale for the preference of apparently more expensive security issuance methods and identifies a function of the underwriter not recognized in the traditional literature on investment banking. We argue that a firm seeking to raise new capital can employ an underwriter to "certify" that the issue price is consistent with inside information.

*Id.*; Smith, *supra* note 112, at 296 (noting that "[t]he one hypothesis I find which is consis-

investors require underwriters to perform this monitoring or certification function for most offerings, some issuers may be so substantial that investors are willing to forego this underwriting function so that the issuers can take advantage of the lower costs of direct offerings.<sup>116</sup> This explanation is supported by the observations that direct offerings tend to be larger than underwritten offerings and that, generally, they are attempted only by larger, well-established companies (often utilities) with broad public ownership of their securities.<sup>117</sup> In addition, it seems that a direct offering is usually accompanied by a guarantee from a corporate parent or large shareholder that ninety percent of the desired gross proceeds will be obtained.<sup>118</sup>

Obviously, insolvent corporations lack the characteristics of issuers that typically use direct offerings and, therefore, making direct offerings of shares in corporations undergoing reorganization probably would not work very well. Without underwriters performing their certification function, the direct offering to the junior creditors might fail even though the going concern value of the corporation's assets was greater than the amount of senior debt.

Another problem with Professor Bebchuk's alternative is that the

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tent with the available evidence relates to the costs of monitoring management. Although direct expenses imposed on shareholders are higher per dollar raised through the use of underwriters, I hypothesize that management derives benefits from their use."); Smith, *supra* note 111, at 16 (observing that "in addition to a marketing function, the investment banker performs a monitoring function analogous to that of bond rating agencies, of independent auditing firms, of outside members of a firm's board of directors, and of insurance companies.") (footnotes omitted).

116. See Hansen, *supra* note 111, at 47, noting that:

because users of the direct rights method essentially had their guarantee of proceeds, and their purchasers were evidently satisfied with the quality of the new shares, there were no potential investors which required certification of the value of the shares, nor did issuers require the marketing services of a syndicate.

*Id.*; see also Hansen & Pinkerton, *supra* note 112, at 651 stating that:

[i]n the case of low-risk bond issues and of equity issues by companies that are large, well-diversified, frequent issuers, the value of certification is relatively less than in the case of riskier issues. Such issuers of low-risk securities are more likely to benefit from the cost savings from using methods which provide less certification. For such companies, net issue proceeds may be increased by relying on best efforts underwriting, competitive bid auctions, shelf registrations, and even perhaps direct rights offerings.

*Id.*

117. COST OF FLOTATION 1971-1972, *supra* note 83, at 20.

118. Hansen, *supra* note 111, at 46; see also Hansen & Pinkerton, *supra* note 112, at 651 (explaining the lower costs of direct offerings by demonstrating empirically that firms that use them enjoy a comparative cost advantage over other firms); Smith, *supra* note 112, at 297 (employing monitoring cost hypothesis to explain lower costs of direct offerings).



junior creditors might decide not to exercise their options simply because they are not interested in an ownership role in the reorganized corporation.<sup>119</sup> Professor Bebchuk contemplates that the options would be transferable, and so third parties interested in owning the corporation, as well as former shareholders, could purchase them from junior creditors who did not want to exercise them. But, of course, transfers of options would entail additional transaction costs, which would impede their exercise.

The absence of underwriters performing their certification function, the possibility that the junior creditors would not be interested in an ownership role, and the presence of transaction costs may combine to make the direct offering to the junior creditors fail. If the direct offering failed because the options were not exercised, ownership of the corporation would pass to the senior creditors. As a result, the senior creditors might acquire ownership of the corporation even though its going concern value was larger than the senior debt. To this extent, Professor Bebchuk's alternative is tilted in favor of the senior creditors.

Once the senior creditors succeeded to ownership of the insolvent corporation's assets, their claims against the corporation, as well as those of the junior creditors and shareholders, would be discharged. The senior creditors would then be left with the choice of either operating the former corporation's business themselves or (assuming that its going concern value exceeded its liquidation value) liquidating it as a going concern. No capital would have to be raised if the senior creditors took over the business themselves; but, of course, liquidating the corporation as a going concern would entail the transaction costs discussed previously.

Professor Bebchuk's alternative would reach a fair result, and would be cost effective, if the corporation's going concern value was lower than the senior debt, and the senior creditors wanted to operate the former corporation's business themselves. Neither the shareholders nor the junior creditors would exercise their options, and the corporation would go to the senior creditors, who would take over its operation. The corporation's assets would wind up with the persons having the highest priority claims to them, and no transaction costs would be incurred to raise capital for their purchase. However, the same end could be achieved by allowing the senior creditors to make a credit

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119. *Cf. supra* note 62 (providing Professor LoPucki's comments).

bid at a liquidation sale, in which case reorganization would be unnecessary.

This discussion has shown that the alternatives put forward by the commentators in the past few years might well be less cost effective than the reorganization process for a number of insolvent corporations. Restructuring an insolvent corporation's capital structure in the adversarial setting of a bankruptcy court has significant costs, which have been identified by the commentators. What has not been recognized is that the reorganization process also has the significant advantage of minimizing the costs of raising capital. Having the bankruptcy court decree what the going concern value of the insolvent corporation's assets is, what the capital structure of the reorganized corporation will be, and which claims of creditors will be discharged and which will be provided for in the reorganization plan, saves the transaction costs of raising the capital that would otherwise be required for liquidating the insolvent corporation as a going concern. Whether the reorganization process is justified in a particular case must be determined by weighing its costs against those of its alternatives.

## VII. CONCLUSION

The scheme of corporate governance depends on the maintenance of an adequate equity cushion. In addition to providing security for a corporation's creditors, an equity cushion ensures that shareholders have a sufficient stake in the enterprise so that their interests are in maximizing the corporation's value. The disappearance of the equity cushion produces a crisis in corporate governance because it brings the interests of the corporation's creditors and its shareholders and management into conflict, and it gives all of them incentives to pursue objectives other than that of maximizing the corporation's value.

The disappearance of the equity cushion is what gives rise to the need for reorganization and, accordingly, the restoration of the equity cushion should be the central objective of the reorganization process. Although an equity cushion may be restored by converting some of the insolvent corporation's debt to equity, so that some of the former creditors become the shareholders of the reorganized corporation, in many cases an infusion of new capital is required. The former shareholders are often the most ready source of new capital, and their contributions should be welcomed as long as the new capital is sufficient to restore an adequate equity cushion. The size of the equity cushion that is needed will vary from industry to industry, as well as

from company to company, but it should be large enough to withstand losses from any difficulties that one can reasonably anticipate that the reorganized corporation will encounter.

The key advantage to the reorganization process that is described above is that it minimizes the amount of capital that must be raised to restore the equity cushion. Instead of scrapping the corporation's existing capital structure entirely (as would happen with its liquidation as a going concern), the reorganization process leaves most of the existing capital structure in place and concentrates on raising the capital necessary to restore the equity cushion. Although the reorganization process is quite complicated and often contentious, it is probably warranted in many cases because it economizes on the costs of raising the capital that the corporation needs in order to continue. In any particular Chapter 11 proceeding, bankruptcy attorneys and judges need to evaluate the tradeoffs between reorganization and its alternatives.