BANKRUPTCY FIRE SALES

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> *[T]he best way to determine [bankrupt company] value is exposure to a market.* – United States Supreme Court (1999)[1]
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> *"So the 20 million dollars in [estimated collectible] receivables is included in the assets that the purchaser is purchasing for 15.8 million dollars?" Answer "That's correct."* – Transcript, hearing on the sale of Network Plus Corporation as a going-concern.[2]

Bankruptcy reorganization provides a remedy for capital market inadequacy. It protects from dismemberment firms whose value cannot be realized through sale or preserved by soliciting investment in capital markets. Law and economics scholars – strong believers in the marketplace – are skeptical of the need for reorganization. They either deny the market's inadequacy or seek to design substitute markets. For decades, they have debated how best to end reorganization.

In 2002, two leading scholars, Professor Douglas G. Baird and Robert K. Rasmussen, suddenly declared the mission accomplished. In the opening sentence of an article titled *The End of Bankruptcy*, Baird and Rasmussen claimed that "Corporate reorganizations have all but disappeared."[3] They argued that

> In the nineteenth century, no single group of investors could amass the capital needed to buy large firms, and the market for small ones was undeveloped. Today, both small and large firms can be sold as going concerns, inside of bankruptcy and out. The ability to sell entire firms and divisions eliminates the need for a collective forum in which the different players must come to an agreement about what should happen to the assets. That decision can be left to the new owners.[4]

They concluded "[t]he days when reorganization law promised substantial benefits are gone."[5] Later, Baird expanded on the claim, writing that "Today, creditors of insolvent

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[1] Bank of America National Trust and Savings Ass'n v. 203 North LaSalle Street Partnership, 526 U.S. 434, 457 (1999).

[2] Transcript of Hearing Before the Honorable Peter J. Walsh United States Bankruptcy Judge, dated March 13, 2003, docket number 291, at 70-71, Network Plus Corporation, Case # 02-10341, filed in the United States Bankruptcy Court for the District of Delaware. "Well, the 55 million dollar receivable is an included asset so the purchaser is taking over those receivables, and it's our best estimate that 20 million dollars will be collected by the purchaser . . . ." *Id.* The debtor in possession sold the company for 4% of its book value.

[3] Douglas G. Baird & Robert K. Rasmussen, *The End of Bankruptcy*, 55 STAN. L. REV. 751, 751 (2002). In a later essay they clarified that they claim only the disappearance of "traditional reorganizations." Douglas G. Baird & Robert K. Rasmussen, *Chapter 11 at Twilight*, 56 STAN. L. REV. 673, 674 (2003) ("As we claimed in The End of Bankruptcy, traditional reorganizations have largely disappeared.").

[4] *Id.* at 756.

[5] *Id.* at 789.

businesses . . . no longer need a substitute for a market sale. Instead of providing a substitute for a market sale, chapter 11 now serves as the forum where such sales are conducted."[6]

In this article, we present empirical evidence that reorganization remains essential for dealing with distressed large public companies. We compared the prices for which 30 large public companies were sold with the values of 30 similar companies that were reorganized in the period 2000 through 2004. We found that companies sold for an average of 35% percent of book value, but reorganized for an average fresh start value of 80% of book value and an average market capitalization value – based on post-reorganization stock trading – of 91% of book value.[7] Even controlling for the differences in the prefiling earnings of the two sets of companies, sale yielded only about half of reorganization value. These results suggest that creditors and shareholders can nearly double their recoveries by reorganizing large public companies instead of selling them.

In Part I of this article, we explain the reorganization process as a foundation for understanding the market's difficulty in replacing it. Part I briefly describes the law and economics scholars' efforts to fashion market substitutes for bankruptcy reorganization and elaborates on Baird and Rasmussen's claim that the market has in fact replaced reorganization.

Part II describes the methodology employed in our study. Part III presents our findings. Those findings include a regression model that shows the choice between reorganization and sale to be the principal determinant of the value realized in the bankruptcy of a large, public company. The companies sold had significantly lower earnings than the companies reorganized, but even controlling for that difference, sales produced much less value than reorganizations.

Part IV attempts to explain the market failure we document. The obvious problem is insufficient market liquidity. That problem, we argue, is compounded by managers' personal incentives to sell their companies for inadequate prices. In addition, the investment banks that advise those managers have interests of their own that may conflict with price maximization. Unsecured creditors – the principal losers when

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[6] Douglas G. Baird, *The New Face of Chapter 11*, 12 AM. BANKR. INST. L. REV. 69, 71 (2004).

[7] These percentages are calculated using the raw values of the underlying variables. Consequently they are skewed positive. The resulting mean values are systematically higher than the medians. The natural logs of the percentages (the ratios) are used in the regression analysis in order to compensate for the skew and to provide more reliable estimates. The corresponding values of these percentages, using the logged variables and not controlling for EBITDA, are 26% for sale value, 67% for fresh start value, and 76% for market capitalization value.

distressed companies are sold – sometimes object to the sales. But bankruptcy institutions discourage the objectors and impair their pursuit.

Bankruptcy law charges the bankruptcy judges with the responsibility to prevent inadequate-price sales. But the judges are powerless to do so, because an historical accident placed the bankruptcy courts in competition for large, public company bankruptcies. The case placers – managers, DIP lenders, and their professionals – have the right to choose their bankruptcy courts. They prefer bankruptcy courts that will not scrutinize the adequacy of the price at which they have chosen to sell, and there is no shortage of bankruptcy courts willing to bend the law as necessary to accommodate them. Appellate remedies are unavailable.

The sales we examined were, in nearly every instance, "market-tested" by public auction. But those auctions too failed to prevent inadequate-price sales. In most cases, only a single bidder appeared. We interpret the data as showing that the high costs of evaluating companies combined with the low probability that a competing bidder could succeed in the bidding discouraged competitive bids.

Part IV also presents new empirical evidence regarding Baird and Rasmussen's claim that going concern sales have in fact replaced reorganizations. Although the numbers and proportions of bankruptcy going concern sales had been increasing at the time Baird and Rasmussen first made their claims in 2002, those numbers and proportions decreased sharply in the past two years.

I. THE SALE VERSUS REORGANIZATION DEBATE

Bankruptcy offers three alternatives for addressing the problems of a large, public company in financial distress. The debtor may reorganize the business, sell it as a going concern, or close the business and sell the assets "piecemeal." Scholars and policy makers are in agreement that piecemeal sales are the least desirable alternative because they provide the lowest values.[8] Until recently, scholars and policy makers

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[8] Douglas G. Baird & Robert K. Rasmussen, *Chapter 11 at Twilight*, 56 STAN. L. REV. 673, 691 (2003) ("Bankruptcy scholars for years have viewed the choices facing a corporation as either to reorganize consensually in order to preserve going-concern value or have its assets sold piece by piece for a fraction of their value."). The legislative history of the current bankruptcy code takes an equally dismal view of piecemeal liquidation.

> The purpose of a business reorganization case, unlike a liquidation case, is to restructure a business's finances so that it may continue to operate, provide its employees with jobs, pay its creditors, and produce a return for its stockholders. The premise of a business reorganization is that assets that are sued for production in the industry for which they were designed are more valuable than those same assets sold for scrap.

House Report No. 95-595, 95th Cong., 1st Sess. (1977) at 220.

were also in agreement that markets were inadequate to support going concern sales of bankrupt large public companies, leaving reorganization as the only practical alternative.[9]

In the mid-1980s, however, Professors Douglas G. Baird and Thomas H. Jackson both challenged that view. Baird merely raised the issue whether going concern sales were capable of replacing reorganization.[10] Jackson flatly asserted that they were.[11]

To be effective, a sale or reorganization must, directly or indirectly, solve three problems of the bankrupt businesses: lack of operating profits, excessive debt, and illiquidity. A business lacks operating profit when its revenues are insufficient to cover the non-interest expenses of continued operation. Neither sale nor reorganization can do anything directly about a company's lack of operating profits. But by solving the problems of excessive debt and illiquidity, either might free the debtor's resources for application to the operating profits problem.

To reorganize a company, a dollar value must be placed on it. Unless the parties agree on that dollar value, the judge determines it. Law and economics scholars generally object to judicial valuations because they consider the market more accurate. The next section explains how reorganization solves the problems of excessive debt and illiquidity, and why the process inevitably requires judicial valuation.

A. Reorganization

Reorganization addresses the problem of excessive debt by reducing the amount of the debt. To illustrate, assume that a business with future annual revenues of 10 faces future interest expense of 8 and other expense of 4. With total annual expenses of 12, this business will suffer a loss of 2 each year. Unless something changes, the business will eventually fail as unpaid debts accumulate and unpaid creditors seek their legal remedies.

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[9] Until recently, going concern sales of companies were not even considered among the alternatives. *See, e.g.*, *supra* note 8.

[10] Douglas G. Baird, *The Uneasy Case for Corporate Reorganizations,* 15 J. LEGAL STUD. 127 (1986) (hereafter "Baird, *Uneasy Case*") ("In this paper I ask whether corporate reorganizations should exist at all."). *Id.* at 136 ("The question is . . . whether [third parties] are so apt to undervalue a firm's value or so apt to find the valuation process itself costly that they are likely to be unwilling to pay an amount that is at least equal to the value of the firm in the hands of the existing investors."); Douglas G. Baird, *Revisiting Auctions in Chapter 11*, 36 J.L. & ECON. 633, 653 (1993) (hereafter "Baird, *Revisiting Auctions*") ("The case for mandatory auctions is hard to make precisely because it depends crucially on a new player entering the picture who does not exist now.").

[11] THOMAS H. JACKSON, THE LOGIC AND LIMITS OF BANKRUPTCY LAW (1986) ("There is no reason why chapter 7 could not be used as the vehicle to sell the firm as a going concern in the same way that companies go public.").

If, however, reorganization reduces the debt of this business by half, the effect is to reduce the interest expense by half – to 4. With revenues of 100, interest expenses of 4, and other expenses of 4, the business will have profits of 2 and can operate indefinitely. That is the essence of reorganization.

To reduce the rights of creditors while leaving the rights of shareholders intact would violate the basic legal principal of "absolute priority."[12] That principal holds that a debtor must provide for full payment to creditors before making any payment at all to shareholders.[13] Much ink has been spilled explaining the importance of absolute priority and the adverse consequences of deviating from it.[14]

Reorganization law enforces the absolute priority rule by requiring shareholders to surrender to creditors that portion of the shareholders' ownership necessary to compensate the creditors for the debt reduction. If the company's debts exceed the total value of its assets, the absolute priority rule requires surrender of all shares.[15] The

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[12] *E.g.*, Northern Pacific Railway Company v. Boyd, 228 U.S. 482 (1913).

[13] The absolute priority rule is reflected in state statutes prohibiting the payment of dividends to shareholders that would render the company unable to pay the full amount of its obligations to shareholders. *E.g.*, Model Business Corporation Act §6.40 (prohibiting distributions "if, after giving it effect: (1) the corporation would not be able to pay its debts as they become due in the usual course of business; or (2) the corporation's total assets would be less than . . . its liabilities . . . .").

[14] Douglas G. Baird & Thomas H. Jackson, *Bargaining After the Fall and the Contours of the Absolute Priority Rule*, 55 U. CHI. L. REV. 738 (1988) (considering whether adverse consequences flow from allowing a creditor entitled to payment under the absolute priority rule from giving part of its recovery to one subordinate party with no entitlement while freezing out a more senior party with no entitlement); Bruce A. Markell, *Owners, Auctions, and Absolute Priority in Bankruptcy*, 44 STAN. L. REV. 69 (1991) (considering whether the "new value exception to the absolute priority rule" is harmful to the rule's purposes); *but see* Douglas G. Baird & Donald S. Bernstein, *Absolute Priority, Valuation Uncertainty, and the Reorganization Bargain*, 115 YALE L.J. 1930 (2006) (arguing that difficulty of appraisal, not lack of commitment to the absolute priority rule is the cause of many if not most deviations from absolute priority).

[15] This aspect of the absolute priority rule is expressed in 11 U.S.C. § 1129(b)(2)(B) (2007):

> (2) [T]he condition that a plan be fair and equitable . . . includes the following requirements:
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> (B) With respect to a class of unsecured claims –
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> (i) the plan provides that each holder of a claim of such class receive or retain on account of such claim property of a value, as of the effective date of the plan, equal to the allowed amount of such claim; or
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> (ii) the holder of any claim or interest that is junior to the claims of such class

creditors become the company's owners. This process is referred to as "the conversion of debt to equity." Conversion of debt to equity has long been the principal technique for the reorganization of large, public companies.

Such conversions requires valuations. To see why, reconsider the debtor with revenues of 10, interest expense of 8, and other expenses of 4. Assume additionally that the amount this debtor owes is 80 and that in reorganization the debt is cancelled entirely. Interest expense drops to zero the company has profits of 6 each period. The company is saved, but the shareholders must compensate the creditors by giving them stock worth 80.

To determine how much stock that is, reorganization must value the stock.[16] In this example, a determination that the future earnings of 6 per year have a present value of 120 would also determine that the company's shares have a total value of 120. Two thirds of the shares would have a value of 80. That is the proportion shareholders must surrender to creditors to make the latter whole.

Scholars in law, finance and economics have long debated the best way to determine a distressed company's value. Standard appraisal methods that fix the value as some multiple of past earnings fail because distressed companies' past earnings are often depressed and typically negative. Stock and bond prices are unreliable because the companies' situations change rapidly, information flows are generally inadequate, and trading is often suspended entirely. The most common method of valuation employed in reorganization cases is to "discount[] future cash flows from the reconstituted business that will emerge from Chapter 11 . . . at rates reflecting the business and financial risks involved."[17]

The values of those future cash flows – famously referred to as a "guess compounded by an estimate,"[18] are fixed by negotiations among the representatives of creditors and shareholders.[19] If the parties fail to agree on a value, the court hears the

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> will not receive or retain under the plan on account of such junior claim or interest any property . . . .

[16] *E.g.*, Baird & Bernstein, *supra* note 14, at 1935 ("Applying the absolute priority rule in the context of a corporate reorganization requires the enterprise to be valued.").

[17] AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, INC., TECHNICAL PRACTICE AIDS, Statement of Position 90-7, Financial Reporting by Entities in Reorganization Under the Bankruptcy Code, Nov. 19, 1990 (hereafter "SOP 90-7").

[18] Peter F. Coogan, *Confirmation of a Plan Under the Bankruptcy Code*, 32 CASE W. RES. L. REV. 301, 313 n.62 (1982); H.R. REP. NO. 595, 95th Cong., 1st Sess. 222 (1978). Apparently, the guess is at the amounts of future earnings and the estimate is of the appropriate discount rate.

[19] SOP 90-7, *supra* note 17, at 7.09 ("Reorganization value and the terms of the plan are determined only after extensive arms-length negotiations or litigation, between the interested parties. Before the negotiations, the debtor-in-possession, creditors, and equity holders

parties' evidence – typically investment bankers' opinions regarding value – and makes the determination. That determination is what has drawn the law and economics scholars' ire.[20]

The conversion of debt into equity solves not only the excessive debt problem, but also the illiquidity problem. Illiquidity is the problem that occurs when a debtor owns valuable property, but cannot obtain the money necessary to pay its debts without selling the property for a less than fair price. To illustrate, assume a corporate debtor whose future earnings prospects (the property) have a present value of $1 million. Because those earnings will be realized only over a period of years, the debtor may be unable to pay a debt now due the amount of $600,000. But if reorganization converts the $600,000 debt to stock, the debtor no longer has to pay it. After reorganization, the old and new stockholders together will own the company. The majority will decide when the company should pay the $600,000 (as dividends). The debtor's liquidity problem has been solved.[21]

B. The going concern sale alternative

In the 1980s, the sale of nonbankrupt large, public companies became commonplace. That inspired the bankruptcy scholars of the period to consider whether bankrupt companies could be similarly sold and, if so, whether sale could provide a "market" alternative to judicial valuation. Some, including Professors Thomas H. Jackson[22] and Michael Jensen[23] lept directly to the conclusion that such sales were both feasible and desirable. As Jackson explained, "the justification for chapter 11 based on undervaluations by third parties is suspect, at least in a society such as our current one with well-developed capital markets."[24]

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develop their own ideas on the reorganization value of the entity that will emerge from Chapter 11.").

[20] *E.g.*, *infra* text accompanying notes 33-36.

[21] An alternative means for relieving the pressure on the debtor to pay would be to reschedule payment of the $600,000 debt to a time when the debtor can pay it. Parties use both the conversion of debt to equity and the extension of repayment schedules in reorganization cases.

[22] JACKSON, *supra* note 11, at 218-224 (proposing to eliminate chapter 11 because the "the justification for chapter 11 based on undervaluations by third parties is suspect, at least in a society such as our current one with well-developed capital markets."); *id* at 223 ("There is no reason why chapter 7 could not be used as the vehicle to sell the firm as a going concern in the same way that companies go public.").

[23] Michael C. Jensen, *Corporate Control and the Politics of Finance*, 4 J. APPLIED CORP. FIN. 13, 31 (1991) (proposing that reorganizations be eliminated and that all bankruptcy filings lead to mandatory auctions).

[24] JACKSON, *supra* note 11, at 219.

If distressed companies could sell their businesses for fair prices in cash deals, that would solve both the problems of excessive debt and illiquidity. The bankruptcy courts have the power to authorize sale of a debtor's business free and clear of debts, including secured debts.[25] Because the debts do not follow the business, they cannot impair its future operations. That the buyer pays the purchase price in cash solves the debtor's illiquidity problem. Cash in an amount equal to the full value of the company is immediately available for the payment of debt in accord with the absolute priority rule.

Scholars who argue for such sales generally assume that the buyer is also sufficiently liquid to spend whatever is necessary to address the operating profits problem. As Baird and Rasmussen put it, "The ability to sell entire firms and divisions eliminates the need for a collective forum in which the different players must come to an agreement about what should happen to the assets. The decision can be left to the new owners."[26]

What sale advocates missed, however, was the fact that anyone capable of supplying the massive amounts of market liquidity needed to buy and rehabilitate large public companies would demand a substantial return on investment. The advantage of reorganization was that it eliminated the need to pay that return on investment.

Many sale advocates recognized that the assumption of virtually free, virtually unlimited market liquidity was unrealistic. In articles published in 1986 and 1993, Professor Douglas Baird stopped short of claiming that distressed companies could routinely be sold at auction for market values.[27] Specifically, he doubted that a sufficient number of third parties would attend the sales and bid. As Baird put it, "The case for mandatory auctions is hard to make precisely because it depends crucially on a new player entering the picture who does not exist now."[28]

Others shared Baird's doubts about the assumed market for distressed large public companies, but were nevertheless determined to invent ways of bringing markets to bear. Professors Mark Roe,[29] Barry Adler and Ian Ayres,[30] and Philippe Aghion,

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[25] 11 U.S.C. §§ 363(b)(1) and (f) (2007) (authorizing trustees to sell assets free and clear of liens outside the ordinary course of business "after notice and a hearing").

[26] Baird & Rasmussen, *supra* note 3, at 756.

[27] Baird, *Uneasy Case, supra* note 10, at 147 ("This paper has *suggested* that the premise underlying Chapter 11 of the bankruptcy code *may be* unsound.") (emphasis added); Baird, *Revisiting Auctions, supra* note 10.

[28] *Id.* at 653.

[29] Mark J. Roe, Bankruptcy and Debt: A New Model for Corporate Reorganization, 83 Colum. L. Rev. 527, 559 (1983) (proposing that bankruptcy courts value reorganizing firms by offering 10% of their shares in public markets and extrapolating the value obtained to the remaining 90%).

Oliver Hart, and John Moore,[31] each floated hybrid schemes for market-based reform. Each of the schemes was market-based in that bidders rather than judges determined values. Each was hybrid in preserving reorganization's method for dealing with the problem of liquidity. That method was to force at least some creditors to remain invested in the bankrupt firm.

Sale proponents seemed to concede that the costs of sales would be at least as high as the costs of reorganization.[32] But they were virtually unanimous in arguing that market valuation was preferable to bankruptcy judge valuation, because the market would be more accurate. Thus, Mark Roe charged that, "[t]he bankruptcy court is unlikely to make an astute independent determination of . . . the firm's value . . . . Bankruptcy courts lack substantial financial expertise; they are judges, not investment bankers."[33] Michael Jensen added that "bankruptcy judges . . . have neither the information nor the expertise to assess the firm's value."[34] Thomas Jackson noted that "there 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."[35] Douglas Baird explained that "a bankruptcy judge may be less able to cast a cold eye on an enterprise and make tough decisions than someone who has put his own money on the line."[36] Barry Adler and Ian Ayres concluded that "[n]ot only do judges lack the business expertise of individual capital

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[30] Barry E. Adler & Ian Ayres, *A Dilution Mechanism for Valuing Corporations in Bankruptcy*, 111 YALE L.J. 83, 101-03 (2001) (proposing that the bankruptcy courts value reorganizing firms by requiring claimants to submit their personal supply and demand schedules for all quantities of securities that might be issued and then determining the point or points at which the markets would clear).

[31] Philippe Aghion, Oliver Hart & John Moore, *Improving Bankruptcy Procedure*, 72 WASH. U. L.Q. 849, 861-63 (1994) (proposing that the bankruptcy courts value reorganizing firms by soliciting both cash and noncash bids for the companies, and allowing the claimants to choose among them by majority vote).

[32] *E.g.*, Barry E. Adler, *Bankruptcy and Risk Allocation*, 77 CORNELL L. REV. 439, 468 n.128 (1992) (citing data suggesting that the expense of the auctions would exceed the expense of reorganization); Baird, *Revisiting Auctions*, *supra* note 10, at 642 (comparing elements of cost for reorganization and liquidation and concluded that "[o]nce all this is taken into account, it is hard to support the case for mandatory auctions [in Chapter 11] on the basis of the direct costs of bankruptcy").

[33] Roe, *supra* note 29, at 547.

[34] Jensen, *supra* note 23, at 31.

[35] JACKSON, *supra* note 10, at 220.

[36] Baird, *Uneasy Case*, *supra* note 10, at 137.

investors, but also a judicial valuation cannot benefit from the collective wisdom of market investors in the aggregate."[37]

Our findings indicate precisely the opposite. The judicially-based valuations in reorganization cases were surprisingly accurate predictions of post-reorganization trading values. The market valuations in sale cases appear to be only about half of what the companies were actually worth.

The scholars also portrayed the judges' roles in reorganization valuations as larger than they were. First, in a substantial majority of large, public company bankruptcies, the reorganization value of the company was fixed not by the judge, but by the opposing parties in negotiations. If those parties negotiated in the shadow of systematically biased judicial decisions – as Jackson charged – the scholars' complaint might have been valid. But the "evidence"[38] Jackson cited for his charge was virtually nonexistent.[39] Since then, ours is the third study to show that fresh start reorganization values are *lower* than the values the market placed on the same firms in post-confirmation trading,[40] but not significantly so.[41] In our study, we found that

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[37] Adler & Ayres, *supra* note 30, at 90.

[38] Jackson, *supra* note 11, at 220 ("Substantial evidence suggests that valuations by bankruptcy judges are systematically too high.").

[39] *Id.* at 220 n. 36. Jackson's "evidence" was the opinions of two law professors that the securities issued in reorganization cases would not immediately sell for the reorganization values assigned to them. Blum seemed to think that the market value was correct and reorganization value in error. Walter J. Blum, *The Law and Language of Corporate Reorganization*, 17 U. CHI. L. REV. 565, 578 (1950) (referring to "the inflation of reorganization value to exceed market value "). Brudney seemed to think reorganization value was correct and the market in error. Victor Brudney, *The Investment-Value Doctrine and Corporate Readjustments*, 72 HARV. L. REV. 645, 679 (1959) (arguing that issuance of securities to senior claimants that had an immediate market value equal to their claims "would measure the payout in the depressed liquidation values which the reorganization process is designed to avoid"). Our finding that reorganization values are in fact higher than sale values suggests that Brudney's conceptualization is more accurate than Blum's and Jackson's.

[40] Reuven Lehavy, *Reporting Discretion and the Choice of Fresh Start Values in Companies Emerging from Chapter 11 Bankruptcy*, 7 Rev. Accounting Stud. 53 (2002) ("Using the market value of equity immediately after emergence from Chapter 11 as a measure of a firm's intrinsic value, I find that the fresh start equity value is, on average, understated by about 4% and that the average absolute difference between the fresh start and market values is about 11%."); Stuart C. Gilson, Edith S. Hotchkiss & Richard S. Ruback, *Valuation of Bankrupt Firms*, 13 REV. FIN. STUD. 43 (2000) (finding a mean difference in fresh start valuation from market value of -4.7% in a sample of 28 cases). We found that the fress start value was, on average, understated by about 11%, and that the average absolute difference between fresh start and market values is about 18%.

[41] In none of the three studies was the difference statistically significant.

reorganization values were, on average, 12% lower than post-confirmation market values. Thus, well-informed negotiators would have no reason to believe that judges' valuations would be "systematically higher" than post-confirmation market values.

Second, in the few instances where judges value companies, they do not do so based on their personal expertise. They hear the testimony of investment bankers regarding value. Those witnesses are the same investment bankers who advise private investors what to bid or ask in sale scenarios.

Thus, reorganization's detractors had provided no sound evidence that the results of reorganization were unsatisfactory. The debate nevertheless focused on whether going concern sales could provide a substitute.

C. The market for large, public companies

Historically, bankruptcy lawyers and judges had expressed doubt that capital markets were good enough to replace reorganizations. For example, in a study of reorganizations completed in the 1980s, LoPucki and Whitford reported

> Several of our [bankruptcy attorney] interviewees expressed the view that capital markets are not sufficiently developed to produce enough bidders to ensure that the winning bid will approximate the going concern value of the firm . . . . Sizeable businesses were sold in many of our cases, but none of the purchases were financed through an initial public offering. The successful bidder was, in every instance, an already existing firm, usually one in the same line of business. This suggests that for most large businesses, only a limited number of potential buyers exists.[42]

Bankruptcy judge Samuel L. Bufford put the case more bluntly, stating that "[d]ebtors need an opportunity to suspend the rights of creditors because markets are so inefficient" and that "[b]ankruptcy is overwhelmingly a result of imperfect markets and high transaction costs."[43]

In the 1990s, changes in bankruptcy practice and economic ideology combined to increase both parties' preferences for sale over reorganization and the likelihood that bankruptcy courts would approve sales. The change in bankruptcy practice was that the bankruptcy courts began competing for big cases. The change in economic ideology was a growth in the influence of law and economics among judges, bankruptcy professionals, and opinion makers more generally.

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[42] Lynn M. LoPucki & William C. Whitford, *Corporate Governance in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 141 U. PA. L. REV. 669, 763-64 (1993)

[43] Samuel L. Bufford, *What is Right About Bankruptcy Law and Wrong About Its Critics*, 72 WASH. U. L.Q. 829, 846 (1994). See Lynn M. LoPucki, *Strange Visions in a Strange World: A Reply to Professors Bradley and Rosenzweig*, 91 MICH. L. REV. 79, 100 (1992) (Chapter 11 addresses the deficiencies of the marketplace by offering the owners, and more importantly the creditors, an alternative to putting the debtor's assets on the auction block.").

The Delaware bankruptcy court triggered the court competition in the early 1990s.[44] Historical accident had given bankrupt large public companies the legal right to file in any bankruptcy court they chose.[45] Beginning in 1990, the Delaware bankruptcy court adopted a variety of practices that appealed to the "case placers" – the lawyers, executives, and DIP lenders who chose courts for the bankrupt companies. By 1996, the Delaware bankruptcy court had a near national monopoly on large, public company bankruptcies, attracting 13 of the 15 (87%) filed that year.[46] In the late 1990s, other courts responded by copying many of Delaware's practices and thus joining in the competition.[47]

One practice widely adopted by competing courts was to permit sale of the debtor's business as a going concern under section 363 of the bankruptcy code.[48] Routine section 363 sale approval appealed to case placers because it was essentially an option for them to sell the company. If they choose to exercise the sale option, they could sell on short notice, without giving creditors either the opportunity to vote or the extensive disclosure statement required by reorganization law in connection with voting.[49] Such sales were of doubtful legality.[50] But if one court refused to permit them, the case placers simply took their business elsewhere.

The competitive pressures on the bankruptcy courts to permit section 363 sales coincided with a growing national faith in the efficiency of markets.[51] In 1999, the Supreme Court of the United States expressed what amounted to a preference for sale over reorganization, complaining that in reorganization "any determination that the price [of a bankrupt company] was top dollar would necessarily be made by a judge in bankruptcy court, whereas the best way to determine value is exposure to a market."[52]

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[44] LOPUCKI, *supra* note 54, at 49-76.

[45] *Id.* at 15-16.

[46] *Id.* at 49-50.

[47] *Id.* at 123-35.

[48] *Id.* at 167-80.

[49] 11 U.S.C. § 1125 requires that the plan proponent furnish

> [I]nformation of a kind, and in sufficient detail, as far as is reasonably practicable . . . including a discussion of the potential material Federal tax consequences of the plan to the debtor, any successor to the debtor, and to a hypothetical investor typical of the holders of claims or interests in the case, that would enable such a hypothetical investor of the relevant class to make an informed judgment about the plan . . . .

[50] LOPUCKI, *supra* note 54, at 167-69.

[51] *Id.* at 233-34.

[52] Bank of America National Trust and Savings Ass'n v. 203 North LaSalle Street

In combination, these pressures from court competition and pro-market ideology reached such an extreme that when managers sought to sell their companies, some courts refused to hear evidence that the companies could be worth more than the sale prices. In the Polaroid bankruptcy, for example, managers sought confirmation of a sale for approximately a third of the company's book value. The sale price was widely criticized in the financial press as inadequate.[53] The creditors' committee objected to the sale and sought to show that the company was worth more in reorganization. Delaware bankruptcy judge Peter J. Walsh refused even to take the committee's evidence into account.

> [T]he principal conflict here is between those persons and entities who preach and believe that there must be some valuation done which would demonstrate that this enterprise is [not] worth more than what is being proposed by the proposed transaction. . . . I have never accepted the proposition that the court should be guided by valuation when a sale transaction, and in many of these cases, including this one, an appropriately shopped sale transaction, is the alternative. And even in this case where the disparity is dramatic, to say the least, I think the fundamental proposition, which this court has fought for a lot of years, is that a transaction appropriately conducted is the better test of value . . . . I favor the market test approach and that was done in this case.[54]

By approving the sale, Judge Walsh in effect took judicial notice that a large public company could be worth no more in reorganization than was bid at an "appropriately conducted" auction sale.

In the decade of the 1990s, section 363 sales of large public companies grew from a trickle to a flood.[55] Sales under confirmed plans were also on the increase.[56] Baird and Rasmussen noted the increasing numbers and interpreted them not as the result of court competition combined with a shift in ideology, but as the result of an improvement in the market for large public companies. It was in that context they announced that "corporate reorganizations have all but disappeared."

To Baird and Rasmussen, the growing number of companies that chose sale over reorganization proved sale's victory over reorganization in the marketplace and the

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Partnership, 526 U.S. 434, 453 (1999) (citing Baird).

[53] *E.g.*, Kris Frieswick, *What's Wrong With This Picture?*, CFO MAGAZINE, Jan. 2003 at 40 (criticizing the sale price); Tom Becker & Lingling Wei, *Questions Mount In Chapter 11 Case of Former Polaroid*, WALL ST. .J. ONLINE, Jan. 28, 2003 (criticizing the sale price).

[54] Transcript of Sale Hearing Before Honorable Peter J. Walsh United States Chief Bankruptcy Judge, June 28, 2002, Docket No. 1255, at 173, In re Polaroid Corporation, Case No. 01-10864, in the United States Bankruptcy Court for the District of Delaware.

[55] *See* LYNN M. LOPUCKI, COURTING FAILURE: HOW COMPETITION FOR BIG CASES IS CORRUPTING THE BANKRUPTCY COURTS 170-71 (2005) (showing only three section 363 sales of large, public companies in the decade of the 1980s, as compared with 51 in the four year period 2000-03).

[56] Baird & Rasmussen, *supra* note 8, at 675-78.

lack of any need for a reorganization alternative. Baird and Rasmussen are skeptical that the distressed companies that file bankruptcy have much going concern value. But to the extent the companies do have going concern value, Baird and Rasmussen argue that going concern sales now capture that value:

> In examining the nature of the change in the large corporate Chapter 11s of 2002, we see that fundamental forces at work in the economy have made the traditional reorganization increasingly obsolete. Railroads had enormous going-concern value and incoherent capital structures, while facing primitive capital markets. Today's businesses can be replicated with virtual businesses that organize production through the marketplace over the Internet. Any going concern surplus can be captured for creditors via a sale.[57]

The study we present here was designed to test empirically Baird and Rasmussen's assertion that "[t]he days when reorganization promised substantial benefits are gone"[58] by comparing the actual outcomes of sale and reorganization cases.

D. Prior empirical evidence

To date, no direct empirical evidence exists comparing going concern sale values with reorganization values. A study of the Japanese bankruptcy system compared official estimates of piecemeal sale value with reorganization value.[59] Studies of the Swedish bankruptcy systems have compared official estimates of piecemeal sale value with going concern sale value.[60] But this Article is the first to report an empirical study comparing going concern sale value with reorganization value.

II. METHODOLOGY

We studied large, public companies. Scholars generally agree that the large, public company context is the one in which sale prices are most likely to compare well with reorganization values.[61] Information regarding large, public companies is more

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[57] Baird & Rasmussen, *supra* note 8, at 699.

[58] Baird & Rasmussen, *supra* note 3, at 789.

[59] Theodore Eisenberg & Shoichi Tagashira, *Should We Abolish Chapter 11? The Evidence From Japan*, 23 J. LEGAL STUD. 111 (1994).

[60] *E.g.*, B. Espen Ecbo & Karin S. Thorburn, Bidding in Mandatory Bankruptcy Auctions: Theory and Evidence, (unpublished manuscript February 2005); Per Stromberg, *Conflicts of Interest and Market Illiquidity in Bankruptcy Auctions: Theory and Tests*, 55 J. FIN. 2641 (2000).

[61] Robert K. Rasmussen & David A. Skeel, Jr., *The Economic Analysis of Corporate Bankruptcy Law*, 3 AM. BANKR. INST. L. REV. 85, 109 (1995) ("auctions work best with a publicly traded firm"); Roe, *supra* note 29, at 563 ("[Bankruptcy institutions] have failed to make necessary distinctions between the market faced by a publicly held firm with widely

readily available to prospective buyers and the market for public companies' shares is already developed.[62]

A. Sample selection

We drew samples of 30 section 363 sale cases and 30 reorganization cases from Lynn M. LoPucki's Bankruptcy Research Database (BRD). That database includes all large, public company bankruptcies filed in the United States since the effective data of the bankruptcy code, October 1, 1979. For our section 363 sale case sample, we chose the most recent cases available as of the time of data collection, and then worked back in time until we reached our preset goal of 30 cases. The earliest sales included were in December, 2000. The latest were in April 2004. For that period, we included substantially every case in which (1) the debtor sold all or substantially all of its assets pursuant to section 363 of the bankruptcy code, (2) the debtor indicated the amount of its total assets on Exhibit A to the Petition,[63] and (3) the PACER file included sufficient information to support calculation of a sale price. The sales studied were 30 of the 51 sales occurring during that period (59%).[64]

With one exception,[65] we chose cases without advance knowledge of the sale prices. Once we began work on a case, we pursued it to final valuation or proof that such a valuation was impossible. Thus we think our sample, though not quite a universe of qualifying cases for the period studied, is random within that universe.

Although we examined 30 sale cases, our findings with respect to going concern sales are based on only 24. In five cases, the debtor's business was not operating at the time of the sale. We excluded these cases from our comparison because legal scholars generally assume that such "piecemeal" sales of assets occur at prices well below

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distributed securities and that faced by a bankrupt local barber shop, for example. The market for the former could be effective even if the market for the latter often is not."); Baird, *Revisiting Auctions*, *supra* note 10, at 637 ("The case for the mandatory auction is easiest when the firm in question is publicly traded."); Baird, *Uneasy Case*, *supra* note 10, at 128 ("[T]he entire law of corporate reorganizations is hard to justify under any set of facts and virtually impossible when the debtor is a publicly traded corporation.").

[62] *See supra* note 60.

[63] If the debtor did not list its total assets on Exhibit A, we lacked a book asset value by which to measure the recovery.

[64] We omitted 13 cases because the debtor did not file an Exhibit A indicating the book value of its assets. We omitted eight cases because the PACER files contained information insufficient to calculate a sale price.

[65] We did know the sale price in In re Polaroid Corporation, Case No. 01-10864, in the United States Bankruptcy Court for the District of Delaware before selecting it for our study, but virtually any method of sample selection would have included it.

reorganization values.[66] Our focus is on comparing going concern sale prices with reorganization values.

In one sale case, the debtor's bankruptcy resulted from managerial fraud. We excluded all fraud cases from our sale and reorganization samples because we consider the values on Exhibit A in fraud cases too unreliable to serve as the control in making our comparison.[67] Because we actually processed the fraud sale case (Impath) before excluding it,[68] we know that its exclusion made no difference in our findings.[69] We did not process the fraud reorganization cases, so we do not know whether their exclusion made any difference.

We drew the reorganization case sample after completing our analysis of the sale cases. A case was eligible for inclusion in the reorganization case sample if (1) the debtor confirmed a plan of reorganization during the period 2000 through 2004,[70] (2) the debtor emerged from bankruptcy as a going concern and filed an annual report (form 10-K) with the Securities and Exchange Commission after confirmation,[71] (3)

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[66] Appendix A-1 shows the relationship between recoveries in piecemeal and going concern sales.

[67] The division of cases into "fraud" and "not fraud" was made by the classifications in Lynn M. LoPucki Bankruptcy Research Database. Those classifications were all made by LoPucki prior to our decision to use them.

[68] In deciding to exclude fraud cases, we assumed that the frauds were accounting frauds that would result in the overstatement of asset values at the time of filing and thus understatements of sale and reorganization recoveries. Thus, we assumed that we were removing the lowest sale and reorganization recovery ratios. The one sale fraud case excluded involved the expected type of fraud: an overstatement of the value of the companies' assets. Impath, Inc., form 8-K July 30, 2003 (reporting that Impath's Audit Committee had initiated an investigation into the possibility that accounts receivable had been overstated and another asset carried at an inappropriate value); Bloomberg News, *Sentence in Impath Fraud*, N.Y. TIMES, May 31, 2006 at C6 (former president and former CEO of Impath both convicted of securities fraud). In the six months prior to filing, Impath wrote its assets down by nearly 50%. It then sold those assets for 123% of reduced value, by far the highest recovery ratio in a sale case. We decided to deal with this conundrum by making our calculations with and without Impath and reporting any significant differences resulting from Impath's exclusion.

[69] Adding Impath to the final regression model (Table 1, Model V) substantively does not change the coefficients or p-values. The R-square changes by less than .005.

[70] The same years covered by the sale case sample.

[71] These criteria exclude cases in which debtors sold their assets under a plan of reorganization. We consider such cases to be sale/reorganization hybrids. The criteria also exclude cases in which the debtors emerged as private companies. We could not have valued the latter group because we would not have access to either fresh start or stock sale data.

the debtor elected fresh start accounting at the conclusion of its case,[72] (4) the debtor's bankruptcy was not principally the result of fraud, as indicated in the BRD.[73] Fifty-two cases met these criteria.

We arranged the list of 52 cases alphabetically. One of our research assistants processed cases from the top of this list; the other processed cases from the bottom. They worked until they had processed a total of 30 cases. Because we can think of no reason why cases with names in the middle of the alphabet would differ from cases at either end, we consider this sample also to be random within our criteria.

Our samples may not be representative of large, public company sale and reorganization cases in several respects. First, the sale cases included only sales under section 363 of the bankruptcy code. Sales under confirmed plans were excluded. One might suppose that sales under confirmed plans would bring better prices because the properties are exposed to the market for longer periods, because more information is disclosed to creditors and prospective purchasers, or because greater disclosure deters fraud and self-dealing. On the other hand, the prefiling EBITDA, EBIT, and Net Income of the companies selling under confirmed plans were each, on average, lower than those of the section 363 sale companies.[74] That suggests sale prices under confirmed plans would also have been lower.[75] We are left with no substantial reason for believing that our results would have been different if we had included sales of going concerns under confirmed plans.

Neither Baird and Rasmussen, nor other scholars, have expressly distinguished between section 363 sales and confirmed plan sales in their endorsements of sale over reorganization. Scholars generally consider section 363 sales at least as effective as confirmed plan sales:

> Professors Douglas Baird and Robert Rasmussen make a valid point regarding the prevalence of Section 363(b) sales in the twenty-first century. An increasingly large number of articles praises the benefits and popularity of these sales, with law firms and financial groups urging clients to pursue them whenever possible. The examples of successful sales

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[72] This criterion assured that we would be able to calculate fresh start values in all cases.

[73] We concluded that the book asset values reported on Exhibit A in fraud cases were not sufficiently reliable. One fraud case, Impath, was included in the sale case sample before we recognized the problem. We excluded Impath when comparing the sale and reorganization samples, but the exclusion had no significant impact on our results.

[74] The differences were not statistically significant.

[75] Plan sales may bring lower prices because they include a larger proportion of piecemeal sales. Entries in the "NameEmerging" and "AfterEmerging" fields of the Bankruptcy Research Database for the 80 companies that confirmed plans but did not emerge mention "liquidation" far more frequently than "merger" or "acquisition." Those fields generally reflect the terms used by the parties.

> have become too numerous to detail, and it appears that these sales will continue to grow in popularity as an alternative to selling assets under a Chapter 11 reorganization.[76]

Thus we think our examination of section 363 going concern sales does directly address the asserted benefits of going concern sales generally.

A second reason our samples may not be representative of all sale and reorganization cases is that our sample is drawn from a single, recent period (2000-2004). Sales and reorganizations prior to that period or subsequent to it may differ.[77] The reorganization cases in our sample may not be entirely representative because they include only companies that elected fresh start accounting upon emergence. The small minority of emerging companies that did not elect fresh start accounting may differ. This restriction probably excluded principally solvent companies, leaving weaker reorganizing companies in our sample.[78] Thus the restriction tended to bias the results against our thesis. Lastly, our reorganization sample included only companies that emerged as public companies. Companies that emerged as private companies may differ.

B. Research design

We initially sought to compare the recoveries in 30 liquidation cases with the recoveries in 30 reorganization cases. The "recovery" in a case is the percentage of firm value realized by liquidation or reorganization. We use "total assets" as reported on Exhibit A to the bankruptcy petition as a proxy for firm value.[79] That form implies

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[76] Jason Brege, *An Efficiency Model of Section 363(b) Sales*, 92 VA. L. REV.1639 (2006). The praise for section 363 sales has, however, been far from unanimous. *E.g.*, George W. Kuney, *Hijacking Chapter 11*, 21 EMORY BANKR. DEV. J. 19, 111 (2004) (describing section 363 sales as "a massive, federally funded, unified foreclosure system for corporate lenders that primarily serves the interests of secured creditors and their assistants – insiders and the insolvency professionals at the center of the case").

[77] Only 77 large public companies have been sold in section 363 sales since October 1, 1979, the effective date of the bankruptcy code. Fifty-one of those sales (66%) occurred during the period of our study and 30 (39%) were included in our study. Thus there is not a substantial unstudied population.

[78] The rule governing fresh start election provides:

> .36 If the reorganization value of the assets of the emerging entity immediately before the date of confirmation is less than the total of all postpetition liabilities and allowed claims, and if holders of existing voting shares immediately before confirmation receive less than 50 percent of the voting shares of the emerging entity, the entity should adopt fresh-start reporting upon its emergence from Chapter 11. The loss of control contemplated by the plan must be substantive and not temporary.

SOP 90-7.36, *supra* note 17.

[79] Bankruptcy Rules, Official Form 1, Voluntary Petition provides:

that the asset figure furnished should be a book accounting figure, but does not expressly require it.[80]

The book value of a firm is often substantially different from the firm's intrinsic value. But our design does not depend upon book value to accurately reflect intrinsic value for particular firms. Rather, it is sufficient for our design if the average relationship between book value and intrinsic value, whatever it may be, is the same for our sample of sale cases as for our sample of reorganization cases, or differs solely as a result of factors for which we could control. The principal such factor is the firm's earnings.

We refer to the amount realized from liquidation as the "recovery." The recovery is the implicit value the parties placed on the assets sold when they fixed the sale price. We gathered data regarding the recovery from a variety of sources. The principal source was the Asset Purchase Agreements available in the court files. We also examined the transcripts of the hearings on motions to approve sales, news accounts of the sales, and MergerStat Review sale reports.[81] To calculate the recovery from the nominal sale price we added liabilities assumed by the buyers to the cash and other consideration paid by the buyers. If the consideration paid included securities, we valued the securities at market prices. If market prices were not available, we used the values asserted by the parties to the transactions.

In some cases, a single debtor disposed of its assets in multiple sales. If we were able to obtain information on all sales in substantial amounts, we calculated the

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> If debtor is required to file periodic reports (e.g., forms 10K and 10Q) with the Securities and Exchange Commission pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 and is requesting relief under chapter 11 of the Bankruptcy Code, this Exhibit "A" shall be completed and attached to the petition.

[80] The specific request that elicits the assets and liability figures reads:

> 2. The following financial data is the latest available information and refers to the debtor's condition on _____.
>
> a. Total assets $_____,
>
> b. Total debts (including debts listed in 2.c., below) $_____.

Id.

[81] To determine whether we could rely on MergerStat review sale reports to the exclusion of other sources, we compared several of those reports with our own detailed analyses of the sales. We concluded that the MergerStat review sale reports were not adequate for our purposes because they were, at bottom, calculations of deal size, not asset price. In some cases, MergerStat Review ignored assumed liabilities. In others they reported numbers that seemed to us to be flatly contrary to the terms of the Asset Purchase Agreements. Their numbers were sometimes higher than ours and sometimes lower. Our comparison will be posted at http://www.law.ucla.edu/erg/pubs.

recovery as the total price received for all of the assets. In some cases, this was the total of several sales. In others, the consideration received in an early sale was sold in a later sale.[82] In such a case, we included only the price received in the later sale.

If the debtor borrowed money during the case on a DIP loan, but did not pay it back prior to the sale, we deducted it in the recovery calculation. Our goal was to determine the value the buyer and seller placed on the assets the debtor owned at the time it filed Exhibit A. We did not adjust for ordinary operating profits and losses during the bankruptcy case, reasoning that those amounts should be part of a valid comparison of the two means of realizing value from the underlying assets. That is, profits and losses during a sale or reorganization case are endogenous to the procedure chosen.

For each reorganization case, we calculated the recovery two ways. The first was based on the fresh start accounting value the debtor assigned to its assets upon emergence. An emerging company's accountants determine the fresh start accounting value of the assets of the emerging company, as of the confirmation date of the plan.[83] The accepted accounting practice is to set the fresh start accounting value on the basis of the "reorganization value." The reorganization value is the value the plan negotiators placed on the emerging company, or if the negotiators did not reach agreement as to a value, the value determined by the court.[84] We obtained the fresh start value from the companies' post-confirmation financial statements contained in the annual reports filed with the Securities and Exchange Commission.

Anticipating that some readers will be skeptical of fresh start values, we also computed the market capitalizations of the emerging companies. We did so by adding the amount of the reorganized company's liabilities as shown on their financial

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[82] For example, in the Polaroid bankruptcy, the debtor sold its Identification Systems Division for $60 million and retained the cash proceeds of the sale. Polaroid later sold all its assets, including $200 million in cash. We counted only the final sale.

[83] SOP 90-7.55, *supra* note 17 ("The effects of a plan should be included in the entity's financial statements as of the date the plan is confirmed. However, inclusion should be delayed to a date not later than the effective date if there is a material unsatisfied condition precedent to the plan's becoming binding . . . ."). We found that the fresh start accounting date was sometimes a date before the effective date, sometimes after the effective date, and often the same as the effective date. We made our adjustments to fresh start values accordingly.

[84] *Id* at 90-7.61 ("That is, assets should be recorded on the basis of reorganization value."); *id* at 90-7.09 ("Reorganization value and the terms of the plan are determined only after extensive arms-length negotiations or litigation between the interested parties. . . . Several methods are used to determine the reorganization value; however, generally it is determined by discounting future cash flows for the reconstituted business that will emerge from Chapter 11 . . . at rates reflecting the business and financial risks involved.")

statements as of the effective date of the plan[85] to the market value of the reorganized company's shares. We obtained the latter value by multiplying the number of shares outstanding by the market price on the first trading date after the plan's effective date.[86]

We adjusted both these values to reflect only the assets owned when the debtor filed Exhibit A at the commencement of the bankruptcy case. Those adjustments included (1) adding to reorganization value any substantial amounts paid to creditors during the bankruptcy case, and (2) subtracting from reorganization value any substantial amounts borrowed during the bankruptcy case as DIP lending or exit financing. Such payments and borrowings were usually reflected in the companies' disclosure statements or later financial statements.[87]

In our regression analysis, we tested several measures of the strength and value of the businesses being sold or reorganized. By controlling for that strength and value, we sought to isolate the effect of the sale process itself on the recovery. We drew the data for several of these measures from Compustat for the year prior to the year in which the bankruptcy case was filed.[88] In seven of the sale cases, no financial statement data were available for the year prior to filing so we used data from the second year prior to filing. The measures tested were (1) the ratio of net income[89] to total assets,[90] (2) the ratio of earnings before interest and taxes (EBIT)[91] total assets,

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[85] Because all of the reorganized companies studied adopted fresh start accounting methods, all presumably complied with SOP-97.38, *supra* note 15, which states: "Entities that adopt fresh-start reporting . . . should apply the following principles: . . . Each liability existing at the plan confirmation date, other than deferred taxes, should be stated at present values of amounts to be paid determined at appropriate current interest rates. Thus the liabilities shown probably do not differ substantially from market values. Trading prices were available for few, if any, of the liabilities of the reorganized companies in the period immediately after confirmation.

[86] We obtained trading prices from CRSP, BigCharts (marketwatch.com), and other sources.

[87] We did not adjust for changes in the amount of trade debt outstanding. Such changes were generally insubstantial.

[88] The debtor's fiscal year prior to the fiscal year of bankruptcy ends, on average, about six months prior to filing. The sales studied occurred an average of seven months after filing. The strength and value of these businesses could have changed significantly during the period from the prior fiscal year end to the confirmation of the sale. Thus, data from a year later would have been preferable. Such data is not available for a significant number of sale cases because the companies did not file annual or quarterly reports.

[89] Compustat Data Item 172.

[90] Compustat Data Item 6.

[91] Compustat Data Item 178.

(3) the ratio of earnings before interest, taxes, depreciation and amortization (EBITDA)[92] to total assets, and the ratio of cash[93] to total assets.

III. FINDINGS

We estimated two regression models. In the first, the dependent variable was the sale or reorganization recovery ratio using the adjusted fresh start valuation for reorganization cases. In the second, the dependent variable was the sale or reorganization recovery ratio using the market capitalization valuation. The results for these two models were similar, so we report only the results from the market capitalization valuation.

Table 1. Determinants of Recovery Ratio
Cell entries are ordinary least squares coefficients (robust standard errors in parentheses)

	I	**II**	**III**	**IV**	V
Pre-filing EBITDA/Assets ratio natural log $\bar{x}$=0.033 sd=0.109	2.805* (1.104)	2.208* (0.922)	2.164* (0.840)	2.813** (0.981)	3.001** (0.948)
Sale (0=Reorg, 1=Sale) $\bar{x}$ = 0.54		-0.897*** (0.190)	-10.497** (3.462)	-9.115** (3.130)	-9.685** (2.896)
Days In natural log $\bar{x}$=16.552 sd=0.879			-0.280* (0.114)	-0.299** (0.100)	-0.366*** (0.088)
Days In * Sale natural log $\bar{x}$=8.835 sd=8.259			0.580** (0.205)	0.495* (0.186)	0.528** (0.173)
S&P 500 $\bar{x}$=1.041 sd=0.138				-0.324 (0.566)	-0.601 (0.555)
Net Merger residuals $\bar{x}$=-0.142 sd=0.643				0.309* (0.144)	0.332* (0.158)
Industry Interest Coverage $\bar{x}$=0.426 sd=0.157					0.841† (0.485)

[92] Compustat Data Item 13.

[93] Compustat Data Item 1.

Telecom x̄=0.18					-0.615* (0.252)
Constant	-0.894*** (0.122)	-0.400** (0.147)	4.298* (1.954)	4.934* (2.028)	6.094** (1.780)
R-Square	.13	.41	.50	.55	.63
N	49	49	49	49	49
†p<.10, *p<.05, **p<.01, ***p<.001					

A. The regression models

The purpose of our regression analysis was to identify the determinants of higher recoveries, and, in particular, to discover whether the choice between reorganization and going concern sale was among them. We consider an adjusted sale price or reorganization value (the "recovery") to be "higher" when it is larger in relation to the book value of the debtor's assets reported at the filing of the bankruptcy case. Accordingly, the ratio of the recovery to the book value of the debtor's assets (the "recovery ratio") is the dependent variable in our analysis. We use the natural log of that ratio because the ratio is not normally distributed. Logging the variable prevents outliers from driving the results.

By making the recovery ratio – which includes book value – our dependent variable, we have already controlled, in a rough sense, for differences in the values of the companies sold and reorganized. But controlling for book value alone may not be adequate, because the book value of assets might not adequately reflect the earnings associated with those assets. To control for differences in earnings, we added three earnings measures to the model as independent variables, one at a time. They were the net-income-to-assets ratio, the EBIT-to-assets ratio, and the EBITDA-to-assets ratio. The net-income-to-assets ratio was not a significant correlate (p=.52) of the dependent variable. The EBIT-to-assets ratio and the EBITDA-to-assets ratio were nearly indistinguishable in the regression. That is not an unexpected finding given their high correlation with each other (r =.91). Between the two, the EBITDA-to-assets ratio is a slightly better predictor of the dependent variable, and so we use it in our model (Table 1, Model I). It is significant and positive, indicating that companies with higher earnings have higher recovery ratios, even controlling for book value of assets.[94]

[94]We validated the regressions in Table 1 by submitting each variable in the full model

To determine whether illiquidity might also have played a role, we added the debtor's cash-to-assets ratio as of the end of its last fiscal year prior to bankruptcy to the model as an independent variable. With or without including EBITDA in the model, that variable was not significant.[95] Apparently, debtors who enter bankruptcy with lower cash-to-assets ratios do not end with lower recovery ratios.

1. The choice between sale and reorganization

We next tested the effect of the sale-reorganization choice on recovery ratios. We found that debtors who reorganize have substantially higher recovery ratios than debtors who sell (Model II). Controlling for the company's earnings, reorganized companies recover about 75% of their book value, compared to a 29% recovery ratio for those that sell.[96]

Whether a company is sold or reorganized explains far more of the variance in recovery ratios than does the company's earnings. The EBITDA-to-asset ratio accounts for only 13% of the variance in the dependent variable; adding the Sale variable increases R-squared to .41, thus accounting for an additional 29% of the variance. The sale-reorganization choice explains more than twice as much of the variance in recovery ratios as earnings.

Our Pre-filing EBITDA figure for each company is from the company's last annual reporting period ending prior to bankruptcy. In seven sale cases, that period was not available and we used data from the prior reporting period. About one to three years elapsed between the ends of the reporting periods from which we took our data and the sales or reorganizations we valued. The average elapsed time was 1.3 years for sale cases and 1.4 years for reorganization cases.[97]

To investigate the possibility that later changes in the companies' earnings might account for the large difference in sale and reorganization recoveries observed, we compiled an additional measure of earnings, Post-filing EBITDA/Assets. That

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(Model V) to a Monte Carlo Permutation Test with 1000 repetitions. The p-values for all variables in the test are consistent with those reported in Table 1. All are $p<.05$, except Industry Interest Coverage which is $p<.10$.

[95] $p=.704$ with EBITDA in the model, $p=.203$ without EBITDA in the model.

[96] These ratios differ from the ratios reported *supra* note 7 because in generating these we controlled for EBITDA.

[97] We compiled the variable [EstDaysBefSale] by assuming that all bankruptcies were filed at the midpoint of the fiscal year. We added the days from the end of the fiscal year of the last financial statement to the bankruptcy filing to the days from the bankruptcy filing to the sale order in sale cases and to the confirmation order in reorganization cases.

measure is based on the earnings and assets reported by the companies in the last three months prior to sale or reorganization.[98]

When we substituted Post-filing EBITDA/Assets for the Pre-filing measure in a regression equation similar to Model II in Table 1,[99] the Sale variable remained by far the most significant predictor of the recovery ratio. We conclude that changes in EBITDA/Assets from the period before filing to the period immediately before sale or reorganization cannot explain the difference in recoveries in sale and reorganization cases.

The Pre- and Post-filing EBITDA/Assets variables are correlated with each other ($r=.43$, $p= .01$). No obvious systematic differences exist between them and they are reasonable substitutes for each other. We used the Pre-filing EBITDA/Assets ratio in subsequent analyses because that variable was calculated by a third party, exists for a larger number of cases, and is less noisy.

2. Timing

A possible bias against the sale recovery ratio is built into our dependent variable. The average time elapsed between the events referenced in the variable's denominator

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[98] The large majority of companies studied did not report annual earnings for the year immediately prior to sale or reorganization. A large number of them did, however, file monthly operating reports (MORs) during their bankruptcy cases. MORs were generally available for the three months immediately prior to the month in which the sale or reorganization occurred. Although few of those reports presented a value for EBITDA, we were usually able to calculate one with a reasonable degree of confidence. Our goal was to track Compustat's method of calculating EBITDA. We used net sales or revenues in preference to gross sales or revenues when both were available. From that figure we deducted cost of goods sold and selling, general and administrative expenses. If the debtors had expressly included depreciation, amortization, reorganization, restructuring, or interest expenses in either of those two figures, we removed it.

In several instances, data were available for at least one month, but not for all three. In those instances, we used the month or months available and assumed that the missing months were the same as the months we had. In other instances, monthly data were not available, but quarterly data were available for a period that overlapped the three month period that was the subject of our study. In those instances, we used the quarterly data. (None of the quarterly data used included post-sale or reorganization EBITDA.) Using these methods, we were able to calculate Annualized EBITDA/Assets for 22 sale cases and 18 reorganization cases – in total, 40 of the 60 cases studied.

[99] The results indicate that there is no relationship between Post-filing EBITDA/Assets and recovery ($b=0.006$, $p=.99$). Sale remains a highly significant covariate of recovery in the regression ($b=-0.66$, $p<.01$, r-square = .20, $n=34$). We interpret these findings to mean that EBITDA/Assets is a minor covariate of the recovery ratio in bankruptcy.

(bankruptcy filing) and in its numerator (sale or reorganization) differs for sales and reorganizations. Sales occurred an average of 223 days after the filing of the bankruptcy case, while reorganizations occurred an average of 314 days after filing. If it were true that recovery ratios increased as the length of the bankruptcy case increased, the effect of our variable design would have been to discriminate against sale recovery ratios. To address that possibility, we control for the difference in case lengths by including a time variable in our model. The variable – Days In – is the number of days from filing to reorganization in reorganization cases and filing to sale order in sale cases.

We anticipated that time would affect sales and reorganizations differently, and so we also introduced an interaction term of Days In*Sale. The resulting coefficients (which should be read as a group) suggest that the recovery ratio for a reorganized company decreases with time in bankruptcy, but that the recovery ratio of a sold company increases with time in bankruptcy. (Model III). We interpret the finding with respect to reorganizations to mean that high-recovery ratio reorganization cases resolve more quickly.[100] We interpret the finding with respect to sales to mean that low-recovery ratio sale cases resolve more quickly.[101] Most importantly, our findings with respect to the importance of the sale-reorganization choice were not affected by the controls.

In reorganization cases, the distribution of cash and securities takes place after confirmation. The same is ordinarily true in section 363 sale cases. But the fact that section 363 sales often reduce the estates to cash early in the cases led some commentators to assume that section 363 sales result in quicker payouts to creditors. For example, Professor James J. White wrote:

> So what [do 363 sales] offer to the secured creditors? Well, it gives them the same benefit that everyone else enjoys, a lower priced reorganization. Part of that comes from reduced administrative fees, but more of it comes from the shortening of the term of their non interest-bearing loan. Presumably the

[100] The finding could be interpreted to mean that lingering in reorganization *causes* recovery ratios to decline. We are skeptical of this interpretation because we found in another study that longer reorganizations were correlated with *lower* refiling rates. Lynn M. LoPucki & Joseph W. Doherty, *Why Are Delaware and New York Reorganizations Failing?*, 55 VAND. L. REV. 1933, 1976-77 (2002).

[101] The finding could be interpreted to mean that greater patience or greater ability to wait results in sale at a higher price. We are skeptical of both these interpretations. For nearly all of the companies sold, the sale process began with the hiring of a financial advisor prior to bankruptcy. We found no relationship between recovery and our best indicator of a debtor's ability to wait – assertions of non-viability. *See infra*, Part III.B.1.

> ultimate payout in these cases comes sooner than in other chapter 11s and that payout can be put to use.[102]

Our data suggest that White's presumption may be wrong. In the sale cases we studied, confirmation did not occur until an average of 611 days after the filing of the case, as compared with only 314 days for reorganization cases.[103]

Delayed confirmation does not necessarily equate to delayed distribution. Probably some parties in interest, particularly secured creditors, were paid directly from the sale proceeds upon closing of the sales. But probably some secured creditors, most unsecured creditors, and all shareholders had to wait for their money until plan confirmation.[104] Because the section 363 sale cases took nearly twice as long as the reorganization cases to reach plan confirmation, it is not at all clear that, on average, payouts came sooner in sale cases. To the extent that payouts in sale cases actually came later, the resulting reductions in actual recoveries have not been taken into account in our findings; the sale process performed worse than we report. Further study is needed to determine the extent of, and reasons for, the long post-sale delays.

3. Stock market and merger market conditions

We next tested whether stock market or merger market conditions influenced recoveries. We expected that higher stock prices generally would be correlated with higher recoveries. We expected that specifically because we used the stock prices of the reorganized companies as our means of valuing them and generally because we assume the same companies are worth more in higher markets. Higher stock prices might also make it easier to raise the money necessary for acquisitions and so increase sale prices.[105]

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[102] James J. White, *Death and Resurrection of Secured Credit*, 12 AM.BANKR. INSTIT. L. REV. 139, 164 (2004).

[103] Compare Appendix A: Sale/Reorganization Comparison, Reorganization Cases, column for "Days filing to confirmation (AVERAGE 314) with Appendix A: Sale/Reorganization Comparison, Sale Cases, column for "Days filing to confirmation (AVERAGE 611).

[104] In Impath, the sale proceeds were sufficient to pay all unsecured creditors in full, with interest. The court ordered that the payment be made prior to plan confirmation, but noted the lack of precedent for such a payment. Terry Brennan, *Impath creditors to be fully paid*, DAILY DEAL, Nov. 19, 2004 ("'Judge Beatty said from the bench that it was unprecedented that all creditors would be paid before a plan has been confirmed,' said creditors' counsel, Schuyler Carroll of Arent Fox PLLC. 'She also said that there is no case law to support her decision.'").

[105] We anticipated that this relationship might be weaker because little of the purchase prices in the sales we studied were paid in stock. On average, 71% of the sale price was paid in cash. In only 6 of 30 cases (20%), did the buyer pay part of the purchase price in securities.

The level of merger and acquisition activity varies widely over time.[106] We hypothesized that the conditions that caused high levels of mergers and acquisitions would lead to higher recoveries because debtors would have a ready market for companies they wished to sell either before or after plan confirmation. We also hypothesized that high stock prices and high levels of mergers and acquisitions would be correlated with each other.

We used the S&P 500 Index, measured at its closing price on the day the court entered its sale order in sale cases or its confirmation order in reorganization cases as our measure of stock prices. We used the number of mergers and acquisitions that occurred in the United States in the year of the bankruptcy sale or reorganization, as reported by Mergerstat Review [Net Mergers], as our measure of merger and acquisition activity.[107]

We assume that high stock prices are a principal cause of high levels of mergers and acquisitions, an assumption supported by the bivariate correlation ($r=.56$, $p<.001$). That is, the level of merger and acquisition activity is higher when stock prices are higher. Because they are correlated with each other, inclusion of SP500 and Net Mergers in the same model would be improper. To solve this problem we conducted a path analysis, regressed the SP500 on Net Mergers, and constructed a new variable, Net Merger residuals. Net Merger residuals is the difference between SP500 and Net Mergers. This new variable is not correlated with SP500, so we are able to use both in our model.

We find no evidence that stock prices affect recovery rates, but strong evidence that the Net Merger residuals are positively correlated with recovery rates (Model IV). We conclude that bankruptcy recoveries do not increase when merger and acquisition activity is high as a result of high stock prices, but do increase when merger and acquisition activity is high for other reasons.

We think this finding alone justifies the existence of reorganization. Even if the recoveries from bankruptcy sales were equal to the recoveries from reorganizations at any given time, debtors could still gain by reorganizing when conditions were not conducive to sale, and then selling when those conditions improved. If, as seems more likely, the recoveries from sales and reorganizations vary independently over time,

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[106] FACTSET MERGERSTAT, MERGERSTAT REVIEW 1-2 (2006) (showing that the numbers of mergers rose from 1,877 in 1992 to 9,566 in 2000, fell to 7,303 in 2002, and then rose to 10,332 in 2005.).

[107] The underlying theory is that the bankruptcy sales we observed were, in relevant respects, the same kinds of transactions as the mergers and acquisitions Mergerstat Review counts. Mergerstat Review counts "net mergers and acquisitions." *Id.* at 2. The sale cases in our study would have been counted as acquisitions. At the closing of such a sale, the usual procedure is for the buyer to merge the debtor entities into a newly formed subsidiary of the buyer.

reorganization would sometimes provide a valuable alternative when sale conditions were poor.

4. Industry distress

In a landmark article,[108] Schleifer and Vishny theorized that bankruptcy sale prices would be depressed in distressed industries because the debtors' competitors – the most likely purchasers – would be illiquid and so unable to bid at the sales. Our data confirm their intuition that companies from within the industry would be the most likely purchasers at bankruptcy sales. We found that two-thirds of buyers were "strategic" in that they planned to use the assets in conjunction with their own businesses; only one third were merely "financial" investors seeking a profit on the purchase.[109]

To test Schleifer and Vishny's theory with respect to the effect of industry distress on sale prices, we compiled a variable to reflect the level of distress in a debtor's industry. Following Stromberg,[110] we calculate "industry distress" as the fraction of the firms in an industry whose income is insufficient to cover the firm's interest expense.[111] Our industry distress variable [Industry Interest Coverage] was only marginally significant when added to the regression (Model V) and positive. The positive coefficient indicates that when industry distress is high, recovery ratios are high – the opposite of the Schleifer and Vishny hypothesis. Consistent with our results, and contrary to Schleifer and Vishny's hypothesis, the proportion of strategic buyers does not appear to vary with the level of distress in the industry. Strategic buyers were, if anything, a little more common when industry distress was high.[112]

We doubt that industry distress causes strategic buyers to bid more for their ailing competitors. Nor is there any substantial reason to believe that industry distress forces

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[108] Andrei Shleifer & Robert W. Vishny, *Liquidation Values and Debt Capacity: A Market Equilibrium Approach*, 47 J. FIN. 1343 (1992).

[109] We classified the buyer as "strategic" in 19 cases (63%), as "financial" in 10 cases (33%), and as a mix of financial and strategic buyers in one case (3%). *See* Appendix C-2.

[110] Stromberg, *supra* note 60, at 2665.

[111] Our variable is defined as the percentage of firms in the industry with an interest coverage ratio less than 1 in the year of the bankruptcy sale or reorganization. Sale is the date of the sale order; reorganization is the date of the confirmation order. A firm is "in the industry" if it has the same three-digit SIC code as the debtor in the year of bankruptcy sale or reorganization, or the same two-digit SIC code if Compustat shows no firms in the industry that year. In calculating his variable, Stromberg added firms filing bankruptcy in the year after the debtor because "[Swedish] firms that go bankrupt do not report any financial statements for the period immediately preceding bankruptcy." *Id.* American public companies generally do.

[112] The data will be posted at http://www.law.ucla.edu/erg/pubs.

debtors to reorganize rather than sell, thus producing higher recoveries.[113] One plausible interpretation is that sick companies in sick industries get better recoveries than sick companies in healthy industries because the problems of the former are exogenous while the problems of the latter are endogenous. In any event, our data provide no support for Schleifer and Vishny's theory. Regardless of the controls we employed, we found no correlation between industry health and recovery ratios.

B. Negative findings

We made two negative findings of importance. First, selling-debtors' assertions of non-viability did not correlate with reduced recoveries. Second, larger debtors tended to choose reorganization over sale. Controlling for that choice, however, larger debtors did not have higher recovery ratios.

1. Asserted non-viability did not correlate with low sale recoveries

To sell their businesses, the debtors we studied had to justify their sales to the bankruptcy courts. They did so through the testimony of executives or advisers at sale approval hearings. Narrative excerpts of those justifications appear in Appendix B. Some of the excerpts assert non-viability – that is, that the debtor could not reorganize. Others claimed only that sale would maximize the value of the estate, which suggests that reorganization was an alternative. We hypothesized that these assertions were valid proxies for viability.

One might expect that non-viability -- the future inability to reorganize -- would have an adverse effect on sale prices. The absence of a reorganization option would deprive the debtor of the ability to strike a hard bargain in the common, single-bidder sale situation. Such a debtor would also be under pressure to sell quickly, because the debtor's value presumably would be declining with time.

To investigate that possibility, we coded these sale justifications as (1) strong assertions of non-viability, (2) weak assertions of non-viability, and (3) mere assertions that the debtor was maximizing value by selling. We added the resulting variable to the model, first as a dummy variable combining (1) and (2), then as a dummy variable combining (2) and (3). Neither dummy variable was a significant predictor of the recovery ratio.[114] Debtors asserting viability did not receive better prices.

To investigate further, we compared these assertions of non-viability with the time the companies were "on the market." We considered a company to be on the market

[113] We hesitate to imply a causal relationship between industry distress and the decision to sell. We can, at best, say that we controlled for the decision to sell or reorganize in Models II-V, and that the addition of Industry Interest Coverage to the model both increases the fit of the model and reifies the coefficients associated with the reorganization-sale decision.

[114] For both, $p>.50$.

from the time the company retained its financial advisor to the time the court approved the sale. We expected nonviable companies to be "on the market" for shorter periods of time because their liquidity-constraints would force them into quicker sales. We found no significant relationship, however, between asserted viability and time on the market.[115]

In seeking to justify their sales to the bankruptcy court, 16 of the 30 companies studied (53%) made strong assertions of non-viability. That is, they represented to the court that they were unable to reorganize. These statements ranged from GlobalStar's stark assertion that it would run out of cash for administrative expenses "within weeks"[116] to Polaroid's catchy metaphor that the company was "a melting ice cube."[117] We hypothesize that if the non-viability assertions were true, they would have been reflected in declining cash reserves. Instead we found that cash reserves were slightly higher for non-viable companies, although the difference was not statistically significant.

In combination, these findings left us suspicious of the debtors' assertions of non-viability. The assertions were self-serving. Debtors made the assertions while seeking court approval of their proposed sales. Absent a compelling reason to sell quickly, some debtors may have feared the court would require that they comply with Chapter 11 plan formalities by making "adequate disclosure" to creditors and giving creditors the opportunity to vote on the sale. Our suspicion is that the assertions were made opportunistically, to maximize the likelihood of sale approval. The strength of the assertions may have reflected debtors' levels of concern regarding sale approval or debtors' willingness to exaggerate, rather than debtors' actual non-viability.

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[115] The average time elapsed from retention of investment bankers to sale averaged 351 days. Among companies who said they were maximizing value the time was shorter (316 days vs. 362 days), but the difference of means is not statistically significant (F=0.38, N=28, p=.54). The data are in Appendix C-2.

[116] Motion of Debtors (I) To Approve the (A) Sale of Substantially All of their Assets Free and Clear of Interests and (B) Assumption and Assignment of Contracts and Leases In Connection Therewith, or (II) Alternatively, for Authority to Wind Down their Operations, filed Nov. 5, 2003, docket no. 1156, at 8, In re Globalstar Capital Corporation, et al., Case No. 02-10499, in the United States Bankruptcy Court for the District of Delaware.

[117] Transcript of Sale Hearing Before Honorable Peter J. Walsh United states Chief Bankruptcy Judge, June 28, 2002, Docket No. 1255, at 177, In re Polaroid Corporation, Case No. 01-10864, in the United States Bankruptcy Court for the District of Delaware ("The testimony is undisputed by both witnesses that the revenues of this company are falling off and both of them analogized to . . . a melting ice cube.").

2. Larger firms did not have higher recovery ratios

Measured by book asset values at filing, the companies sold were smaller than the companies reorganized. The difference was marginally significant (p=.069). But when we added company size, measured by asset book value, to the regression, it was not statistically significant. (p=.488) We conclude that smaller companies did not have lower recovery ratios. Thus the smaller sizes of the companies sold cannot explain the lower recovery ratios for those companies.

Considering the foregoing analyses together, we reach the following conclusions. Our model explains 63% of the variance in recovery ratios in the 49 going concern sale and reorganization cases studied. The company's earnings, the choice between sale and reorganization, the length of time from filing to case resolution, whether market factors were conducive to mergers when the case is resolved, and the level of financial distress in the debtors' industries each played a role. But the choice between sale and reorganization is by far the most important factor. Recovery ratios are higher when companies reorganize than when they sell as a going concern.

IV. EXPLAINING THE MARKET'S FAILURE

That reorganizations yield higher recovery ratios than going concern sales raises two issues. First, why do debtors advised by leading professionals increasingly choose the worse of two options? Second, why don't the creditors or the courts stop them?

A. Why do companies sell rather than reorganize?

The reasons undoubtedly vary from case to case, but that certain factors are pervasive. First, the participants in these cases, including managers, financial advisors, creditors, and judges, are pursuing their own interests, not those of the debtor companies.[118] Economists refer to such pursuit as an "agency problem" but we consider "corruption" a clearer description.

1. Managers

In 11 of 30 sale cases we were able to identify specific benefits to CEOs resulting directly from the decision to sell. In four cases, sale triggered severance payments to the CEOs, each in the approximate amount of $1 million.[119] In five cases, the buyer

[118] Kuney, *supra* note 76, at 109 (noting that "insiders may benefit from these sales, especially when the majority of their postpetition compensation is tied to the sale of the corporation or where they expect to be employed by the purchaser post sale.").

[119] ABC-NACO, Inc. ($760,320 paid to Makary on sale); Einstein Noah Bagel Corp. ($1.3 million); Casual Male Corporation ($662,000); ($3,100,000 paid to co-CEOs who then used

hired the CEO of the seller to work for the buyer after the sale.[120] In two others, the sellers' CEOs became paid consultants to the buyers after the sale.[121]

Of course, legitimate reasons may exist for the buyer of a bankrupt company to hire the seller's CEO. That in no way, however, changes the fact that the CEOs' expectation of such hiring provides the CEO with an incentive to sell.

Even the CEO who could stay on to run the reorganizing company might find it more profitable to sell and join the buyer. For example, Polaroid's CEO resigned early in the bankruptcy case and was replaced by two lower level employees as "co-CEOs." One had a base salary as CEO of $375,000, the other $390,000.[122] After they took the job, Polaroid adopted a retention bonus plan that resulted in their being paid $844,000 and $878,000 respectively in their final year of work. They sold Polaroid to the sole bidder (OEP) for a price that was widely condemned by the financial press as too low.[123] Immediately upon closing the sale, OEP hired them to continue running the company as co-CEOs. The two swore under oath that they had no contract to work for OEP before they closed the sale. But they may not have needed one. The custom is that if the buyer hires the selling managers, the selling managers get 5% to 10% of the buyer's equity in the company. A year after the sale closing, Polaroid disclosed that each of the two employees in question owned stock in OEP valued at $3 million to $4 million.[124]

We probably have only scratched the surface of managerial corruption in these cases. The companies we studied typically went dark as soon as they decided to sell, making information on management perks difficult to obtain. All 30 were public companies prior to bankruptcy. Each filed at least one annual report with the Securities and Exchange Commission in the two years prior to bankruptcy. But only one (Polaroid) filed such a report for the year of the sale or any subsequent year. Fifteen of the thirty formally terminated their duty to file reports by filing SEC Form 15; the remainder simply stopped filing.[125] Twelve of the 30 buyers were public companies that filed post-purchase annual reports. Eleven of the 12 mention the

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the money to buy the company).

[120] The cases were Cone Mills, Rouge Industries, Asia Global Crossing, Genuity, and Polaroid.

[121] The cases were ANC Rental and Globalstar.

[122] LOPUCKI, *supra* note 54, at 178-79.

[123] Examples of the criticism appear *supra* note 53.

[124] LOPUCKI, *supra* note 54, at 179.

[125] The filings are available at http://www.sec.gov/edgar.shtml (last visited February 19, 2007).

purchase in those reports.[126] But few said more about the purchase than the name of the seller and the amount of the purchase price.

After going dark, the bankrupt companies still typically filed monthly operating reports with the bankruptcy court and sometimes with the SEC. But those reports contained skeletal financial data and few or no explanations. Thus if managers received side payments or benefits from the sales of their companies or acquired stock in the purchasers, that information was available to us as researchers only if it happened to be elicited during the sale hearing and a transcript of the sale hearing happened to be placed in the court file.

2. Financial advisors

Nor do the investment bankers who arrange the sales operate as an effective check on sale prices. Formally, the debtors hire them to explore sale or reorganization options. If the companies decide to pursue sales, the investment bankers solicit prospective purchasers. Typically, this means they structure the sales, prepare brochures, send them to likely purchasers, find "stalking horses" who commit to buy the assets, and then conduct auctions. Prospective bidders are asked to sign confidentiality agreements before they are given access to the "data rooms" in which they can examine the companies' financial records. On average, 80 prospects are contacted for each sale, and 30 sign confidentiality agreements. But the average number of bidders is only 1.6 per sale. In 15 of the 26 cases for which we have data (58%), the number of bidders was one.

This thin market, combined with the fire sale prices obtained, reflect and create conflicts of interest for the investment bankers. The investment bankers have little reason to maximize the sale price. Some receive a "success fee" of one percent of the price. But, as is also often the case with real estate brokers and contingency fee lawyers, the increase in the fee resulting from a higher price is not worth the effort necessary to obtain that higher price. A flat percentage fee creates an incentive to do the deal quickly and move on to the next one. The investment bankers have little reason to curry favor with the sellers who hired them; the companies are going out of business.

We speculate that the investment bankers may, however, have reason to *minimize* the price. Under pricing creates value that the investment banker can deliver to a grateful buyer. The grateful buyer will, in turn, compensate the investment banker with future business. To avoid complaints from the debtor's management, the grateful

[126] They were the buyers of Allegiance Telecom (XO Communications), Bethlehem Steel (International Steel Group), Budget Group (Cendant Corporation), Coho Energy (Denbury Resources), Cone Mills (W.L. Ross & Co), Einstein Noah Bagel (New World Coffee), Genuity (Level 3 Communications), Impath (Genzyme), IT Group (Shaw Group), National Steel (United States Steel), Velocita (AT&T), Weirton Steel (International Steel Group)

buyer may also be willing to give the managers a cut. The low prices do not diminish the investment bankers' reputations, because the sold companies go dark. Only in rare cases such as Polaroid do outsiders ever come to realize that the price was low in relation to the company's actual value.

A stalking horse was selected in 26 cases, and that stalking horse became the buyer in 22 (85%).[127] The stalking horses were protected from competitive bids by break up fees averaging 2.3% of the stalking horse price. In addition, the terms of sale required that a competing bidder's first bid, on average, be at least 3.7% more than the stalking horse price. The effect of these "bid protections" was to discriminate against outside bidders. On average, a bidder at the auction sale had to offer 3.7% more than the stalking horse to bid at all, and the challenger's highest bid would be rejected if it were not at least 2.3% higher than the stalking horse's highest bid.

On average, 351 days – nearly a year – elapsed from the debtor's retention of the investment bank to the court's approval of the sale. But from the moment the stalking horse contract was signed, the sale process was rushed. On average, the court entered its order fixing the terms of bidding 14 days after the stalking horse signed, and the auction was held 30 days after entry of the order.[128] Thus, to be chosen as the stalking horse was a crucial advantage. The investment banker advising on the sale has not only the ability to confer this advantage and the incentive both to confer it on someone who will reciprocate the favor, but also the ability and incentive to maximize the advantage's value by rushing the sale.

The potential for these conflicts to affect sale prices was illustrated in the Polaroid case.

> Shortly after Polaroid filed for reorganization in Delaware on October 12, 2001, the company entered into a contract to sell its Identification Systems Division unit to the manager in charge of it for $32 million. The sale required court approval after a public opportunity to bid. Insisting that the sale was urgent, Polaroid sought to limit the opportunity for outside bidding to the extent it could. Polaroid's investment bankers, Dresdner, Kleinwort, Wasserstein, said they had shopped the Identification Systems Division thoroughly and $32 million was the best offer they could get. But when Polaroid tried to get Judge Walsh to approve the sale for $32 million, several would-be bidders appeared in court to protest that they hadn't been solicited, they had difficulty getting bid packages from Dresdner, Kleinwort, Wasserstein, and Polaroid was trying to push the sale through without giving them time to prepare their bids. Judge Walsh extended the bidding period by 10 days, and competitive bidding pushed

[127] The data will be posted at http://www.law.ucla.edu/erg/pubs.

[128] *Id.*

> the price to $60 million.[129] Later, an Identification Systems executive said that in shopping the company, Dresdner, Kleinwort, Wasserstein had been asking $75 million to $125 million, an excessive asking price which had discouraged bidding.[130]

Traditionally, bankruptcy auctions have been public, but competing courts allow them to take place in the offices of the debtors' attorneys.

As Kenneth Ayotte, David Skeel, Douglas Baird, Robert Rasmussen, Harvey R. Miller, Shai Waisman, and others have noted, debtor-in-possession (DIP) lenders also have incentives with respect to section 363 sales that conflict with those of the estate.[131] DIP lenders make high-interest loans to debtors at the beginning of the bankruptcy cases and, assuming the recovery is sufficient, are paid in full at the end. The DIP lender that will be paid in full from the sale – by far the most common kind of DIP lender – has an incentive to push for it, even if the sale price is substantially below the company's value. In some cases, the DIP lenders seek to acquire the company at sale. Whether or not the DIP lender is the buyer, the DIP lender may have control over the pace and terms of the sale, and so the ability to turn it into a fire sale.[132]

For example, in one of the sale cases studied, Budget Group filed bankruptcy while negotiating a sale of its business to Cendant. Budget arranged DIP financing from Credit Suisse First Boston under terms that would put Budget in default if it failed to have a "definitive agreement" to sell its business within 50 days of filing.[133]

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[129] *Id.*

[130] LOPUCKI, *supra* note 54, at 173-74.

[131] Kenneth Ayotte and David A. Skeel, *An Efficiency-Based Explanation for Current Corporate Reorganization Practice*, 73 U. CHI. L. REV. 425 (2006); Harvey R. Miller & Shai Waisman, *Is Chapter 11 Bankrupt?*, 47 BOSTON COLLEGE L. REV. 129, 173 (2005) ("Absent a neutral, multiparty forum, secured lenders will likely exert their influence over a debtor and advocate a sale, as their preference is inherently toward the certainty of recovery that a sale can provide."); Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. PA. L. REV. 1209, 1249-50 (2006) (expressing concern that the "information advantage" of a DIP lender that seeks to purchase may cast a pall over the ensuing auction).

[132] Baird & Rasmussen, *supra* note 3, at 784-85 ("The control that the lender has over cash collateral makes it hard to enter into a financing arrangement without its explicit blessing. Its blessing can be contingent upon many things, including a requirement that the firm be sold as a going concern within a fixed period of time."). *Id.* at 785 ("These revolving credit facilities and the practical control they give lenders over a firm are some of the most striking changes in Chapter 11 practice over the last twenty years.").

[133] Limited Objection of the Official Committee of Unsecured Creditors' to Final Entry of Interim Order Authorizing Debtors to Obtain Postpetition Financing from Credit Suisse First Boston, as Agent, docket number 197, filed Aug. 19, 2002, In re Budget Group, Inc., case

The creditors committee objected to the financing on the ground that it "threatens the Debtors' and the Committee's ability to conclude negotiations on terms and conditions beneficial to the Debtors."[134] Budget agreed to sell to Cendant before the "drop dead" date, rendering the objection moot. But the very existence of such drop dead dates in DIP lending agreements probably depresses sale prices.

B. Why don't the creditors object?

When companies are sold for less than they are worth, the unsecured creditors are usually the losers. Typically, they will recover less than they would have in reorganization. We did not systematically collect data regarding the committees' positions on these sales. We did, however, discover that the committees in at least two of the cases, Polaroid and IT Group, opposed the sales.[135] In both cases, the committees sought to propose their own reorganizing plans, but were unable to finance them. In both cases, the courts approved the sales over the committees' continuing objections.[136]

In Radnor Holdings, a case excluded from our study only because the company did not file Exhibit A, the creditors committee did more than object. The committee filed suit against the buyer at the sale, Tennenbaum Capital Partners, LLC, accusing Tennenbaum of an "inequitable scheme to acquire the Debtors' operating assets at a grossly inadequate price through the mechanism of [a 363 sale]."[137] The committee alleged that Tennenbaum had bought enough stock to give it "substantial effective control" of Radnor, caused Radnor to borrow more money from Tennenbaum than Radnor could repay, forced Radnor into a bankruptcy sale in which Tennenbaum made itself the stalking horse, and then structured the bid procedures "in a way that made it virtually impossible for anyone other than Tennenbaum to even consider bidding."[138]

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number 02-12152 in the United States Bankruptcy Court for the District of Delaware.

[134] *Id.* at 5.

[135] *E.g.*, Objection by the Official Committee of Unsecured Creditors to Debtors' Motion for an Order Approving (I) Sale of Substantially All of the Debtors' Assets to the Shaw Group, Inc., (II) Bidding Procedures, (III) Break-Up Fee and Expense Reimbursement, and (IV) Other Relief, dated April 17, 2002, docket number 1200, In re IT Group, Inc., case number 02-10118, in the United States Bankruptcy Court for the District of Delaware.

[136] Transcript of Hearing Before Honorable Mary F. Walrath United States Bankruptcy Judge, filed April 26, 2002, docket number 1412, In re IT Group, Inc., case number 02-10118, in the United States Bankruptcy Court for the District of Delaware.

[137] Complaint, filed October 31, 2006, docket number 1 at 2, Official Committee of Unsecured Creditors of Radnor Holdings Corporation v. Tennenbaum Capital Partners, LLC, Adversary Proceeding No. 06-50909, In re Radnor Holdings Corporation, Case No. 06-10894, in the United States Bankruptcy Court for the District of Delaware.

[138] *Id.* at 33.

The case was tried in the Delaware bankruptcy court, which ruled in favor of Tennenbaum.[139]

The existence of cases such as Polaroid, IT Group, and Radnor makes clear that creditors do not always favor the proposed sales. In at least some cases, they go to their fate kicking and screaming.

Several sale process characteristics reduce both the likelihood unsecured creditors would object and the likelihood that unsecured creditors' objections would succeed. First, to know the sale price is inadequate, a party may need to spend millions of dollars for an independent valuation.[140] Few unsecured creditors have a stake in the sale large enough to warrant such an expense. Creditors committees are in a position to spend that kind of money because they can charge the cost to the estate.[141] But members of creditors' committees often have private agendas that conflict with the interests of the creditors they represent.[142] Second, even if the committee is faithful to the creditors' interests, it is unlikely to be a match for the debtor in a fight over whether to sell or reorganize. Debtors spend about four times as much in professional fees as do all of the committees representing creditors and shareholders together.[143] The debtors' greater expenditures, together with the debtors' natural information

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[139] Findings of Fact and Conclusions of Law, filed November 16, 2006, docket number 37, Official Committee of Unsecured Creditors of Radnor Holdings Corporation v. Tennenbaum Capital Partners, LLC, Adversary Proceeding No. 06-50909, In re Radnor Holdings Corporation, Case No. 06-10894, in the United States Bankruptcy Court for the District of Delaware. Of course, we have no way of knowing whether the court's findings were correct. We cite this case merely to refute the often made argument that the creditors support the section 363 sales.

[140] Breakup fees are often justified as reimbursement of the stalking horse's expenses in preparing to bid. In the cases we studied, breakup fees averaged $5 million per case. The data will be posted at http://www.law.ucla.edu/erg/pubs. A would-be objector might need to go through the same process to know whether the price was adequate.

[141] The committees are able to employ attorneys and financial advisors at the estate's expense. Ultimately, much of those costs fall on the unsecured creditors the committee represents, but the estate's obligation to pay makes it possible for the committee to spend the money.

[142] *See, e.g.*, LYNN M. LOPUCKI & CHRISTOPHER R. MIRICK, STRATEGIES FOR CREDITORS IN BANKRUPTCY PROCEEDINGS § 10.07(A) (5th ed. 2006) (listing possible conflicts and noting that "the fact that a creditor's primary interest is not collection of the debt does not alone disqualify the creditor from appointment to the committee or constitute grounds for removal.").

[143] Lynn M. LoPucki & Joseph W. Doherty, Rise of the Financial Advisors: An Empirical Study of the Division of Professional Fees in Large Bankruptcies (manuscript 2007) (finding that 79% of court-awarded professional fees and expenses are for services rendered directly to the debtor).

advantage arising from operational control, give debtors the upper hand. Lastly, as is discussed in the next section, the bankruptcy courts are unlikely to rule in the creditors' favor even when their objections are well taken. Efforts to oppose a sale usually produce only conflict and delay, to the unsecured creditors' further disadvantage.

C. Why do the courts approve inadequate-price sales?

To sell assets outside the ordinary course of business, a debtor must obtain the approval of the bankruptcy court.[144] A decision of a bankruptcy court approving a sale is final. Appellate remedies are unavailable.[145]

Under the prevailing case law, courts are supposed to approve only if the debtor can prove that it has "good business reasons" for selling.[146] Our comparison of sale and reorganization recoveries suggests that few of the debtors studied had good business reasons for selling. Eight of the companies studied never claimed lack of a reorganization alternative, but said they were selling in order to maximize the estate.[147] Our findings suggest such claims are generally false. Another six also seemed to acknowledge that they had a reorganization alternative, but to assert that it was riskier and so less desirable than the sale.[148] Sixteen made the self-serving claim that they had no reorganization alternative.[149] The fact that these sixteen companies did not sell for significantly less than the companies that admitted to viability suggests that the sixteen may have been exaggerating.[150] The fact that, even after controlling for the financial conditions of firms sold and reorganized, the sales produced far less value than the reorganizations suggests that many of these firms had reorganization alternatives that would have generated higher recoveries. Thus, they did not have "good business reasons" to sell.

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[144] 11 U.S.C. § 363(b)(1) ("The trustee, after notice and a hearing, may . . . sell . . . other than in the ordinary course of business, property of the estate . . . .").

[145] 11 U.S.C. § 363(m) provides that "the reversal . . . on appeal of an authorization [to sell] does not affect the validity of a sale . . . to an entity that purchased . . . in good faith . . . unless such sale [was] stayed pending appeal." Bankruptcy courts routinely block use of the good faith exception by finding as a fact that the buyer was in good faith. They routinely block the use of stays by fixing supersedeas bonds in amounts exceeding what objectors can post.

[146] In re Lionel Corporation, 722 F.2d 1063, 1071 (2nd Cir. 1983).

[147] *See infra* appendix B.

[148] *Id.*

[149] *Id.* The claims were made at the hearings in which the debtors sought approval of sales to which the debtors had already agreed.

[150] *Supra* Part III.B.1.

Nevertheless, we know of no modern case in which a large, public company debtor proposed a sale and the court refused to approve it. Hearings are held and reasons sometimes argued, but in the end the debtor that wants to sell gets its way.

We think court competition explains the bankruptcy courts' passivity. Formally, all of the sales were proposed by the debtors. DIP lenders were sometimes the driving force behind the sales, but they came to the court for sale approval in alliance with the debtor. The creditors' committees did not object to many of the sales.

None of this relieved the courts of their obligations to determine that the sales were in compliance with the law.[151] The courts did in fact hold hearings and make the necessary findings before approving the sales. In at least one case, IT Group, the court appointed an examiner to investigate the reorganization alternative.[152]

The courts were not, however, without their own stake in the matter. The period covered by our study included the peak years of the biggest large public company bankruptcy boom in history.[153] The courts were in active competition for the cases.[154] Two courts – the Manhattan division of the Southern District of New York and the District of Delaware together attracted 191 of the 336 cases filed nationally (57%).[155] Those cases produced billions of dollars in fees for local bankruptcy professionals and substantial industries for the two cities.[156] Delaware Senator Joseph Biden vehemently defends his state's advantage.[157]

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[151] 11 U.S.C. § 105(a) provides that "[n]o provision of this title shall be construed to preclude the court from, sua sponte, taking any action or making any determination necessary or appropriate to enforce or implement . . . rules . . . .").

[152] *See infra* appendix B.

[153] The boom peaked in 2001 with the filing of 97 large, public company cases. *See* Lynn M. LoPucki, Bankruptcy Research Database, *available at* http://lopucki.law.ucla.edu (last visited February 19, 2007). The query that generates these statistics considers all cases and aggregates them by year filed.

[154] LOPUCKI, *supra* note 54, at 124-28 (showing that the courts were in competition).

[155] Lynn M. LoPucki, Bankruptcy Research Database, available at http://lopucki.law.ucla.edu (last visited February 19, 2007). The query that generates these statistics considers cases disposed of in 2000-04 and aggregates them by city filed.

[156] LOPUCKI, *supra* note 54, at 128-29 (describing the economic significance of the shift in cases to Delaware).

[157] Joseph R. Biden Jr., *Give Credit to Good Courts*, LEGAL TIMES, June 20, 2005 (attacking Lynn M. LoPucki's scholarship regarding the Delaware bankruptcy court); Lynn M. LoPucki, *Courting the Big Bankrupts*, LEGAL TIMES, July 18, 2005 (responding to Senator Biden). Brady C. Williamson, former chair of the National Bankruptcy Review Commission commented that

> Whatever the virtues and vices of the venue statute . . . they will not change in

Had the courts in any of the competing cities ruled against the case placers by refusing to confirm the sales they proposed, future case placers would have avoided those cities. The offending courts – and the judges sitting on them – would have slipped into the obscurity of managing consumer bankruptcies and chapter 11 cases too small to forum shop.

D. If sales are bargains, why don't bids go higher?

Bankrupt large, public companies are difficult and expensive to evaluate. Each potential bidder must make a substantial investment to put itself in a position to bid.[158] Bidders who do not get the company lose that investment. To offset that risk, a potential bidder must have a substantial chance of being the successful bidder with a bid substantially below the company's value. Absent that, bidding at a sale would not make economic sense.

In most of the sales we examined, the debtors addressed this problem by offering bidding incentives to a stalking horse – in essence, paying the stalking horse to bid. The principal incentives were cash payments, in the form of "break-up" fees paid for the privilege of outbidding stalking horses, and "bid increment" requirements that prevented competing bidders from bidding just slightly more than the stalking horse. These incentives likely attracted some stalking horses who would not otherwise have bid. At the same time, they made it even more difficult for second bidders. Second bidders could buy the companies at the substantial discounts necessary to justify the costs of bidding only if the second bidders placed substantially higher values on the companies than did the stalking horses.

The result was that second bidders appeared in only 8 of 23 stalking horse cases (35%) and second bidders were successful in only 4 of 23 stalking horse cases (17%).[159] The rarity with which stalking horses are displaced led us to reconceptualize the selection of the stalking horse as the true sale and the auction as merely a control to prevent the formal exclusion of other prospects.

That reconceptualization makes apparent that, in the absence of effective court oversight, the sale process is vulnerable to subversion. For example, an investment banker who installs a favored customer as stalking horse may be able to defend the

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> our lifetime . . . . And the reason is quite simple. It lies primarily in the make-up of the United States Senate and the membership of the Senate Judiciary Committee. As long as Senator Joseph Biden of Delaware is in the Senate . . . the status quo will not vary.

Brady C. Williamson, *Comments*, 54 BUFFALO L. REV. 507, 508 (2006).

[158] *Supra* note 135 (noting that breakup fees designed to compensate for the cost of preparing bids averaged $5 million in the cases studied).

[159] The data will be posted at http://www.law.ucla.edu/erg/pubs.

apparently weak choice as not determinative because competitors have the opportunity to overbid. But in fact, the ability of outsiders to overbid at the auction is largely illusory. Investment bankers probably have the ability, with some uncertainty, to pass bargains along to favored clients.

E. Have sales been increasing?

In *The End of Bankruptcy* and *Chapter 11 at Twilight*, Baird and Rasmussen argued that sales of bankrupt large, public companies were increasing[160] and used that increase to argue that the sales were value-maximizing.[161] Later, Baird expanded the claim by writing that "Chapter 11 has morphed into a branch of the law governing mergers and acquisitions."[162] The black line on the Figure below tracks the number of large, public company Chapter 11 cases that ended in liquidation for each of the years 1987 through 2006.[163] The grey line tracks the percentages of large public company Chapter 11 cases that ended in liquidations for each of those years.

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[160] Baird & Rasmussen, *supra* note 3, at 751-52 (stating that "Corporate reorganizations have all but disappeared. Giant corporations make headlines when they file for Chapter 11, but they are no longer using it to rescue a firm from imminent failure." and then describing several recent, large cases in which companies used Chapter 11 as "a convenient auction block"); Douglas G. Baird & Robert K. Rasmussen, *Chapter 11 at Twilight*, 56 STAN. L. REV. 673, 679 (2003) ("The large Chapter 11s of 2002 confirm our claim in *The End of Bankruptcy* that going concern sales and implementation of prenegotiated deals now dominate the scene.").

[161] *Id.* at 675 ("whatever value exists is usually best preserve through a sale"); id at 691 ("across the broad range of cases, asset sales do not destroy going-concern value"). Echoing Baird and Rasmussen, prominent bankruptcy professionals Harvey Miller and Shai Waisman wrote:

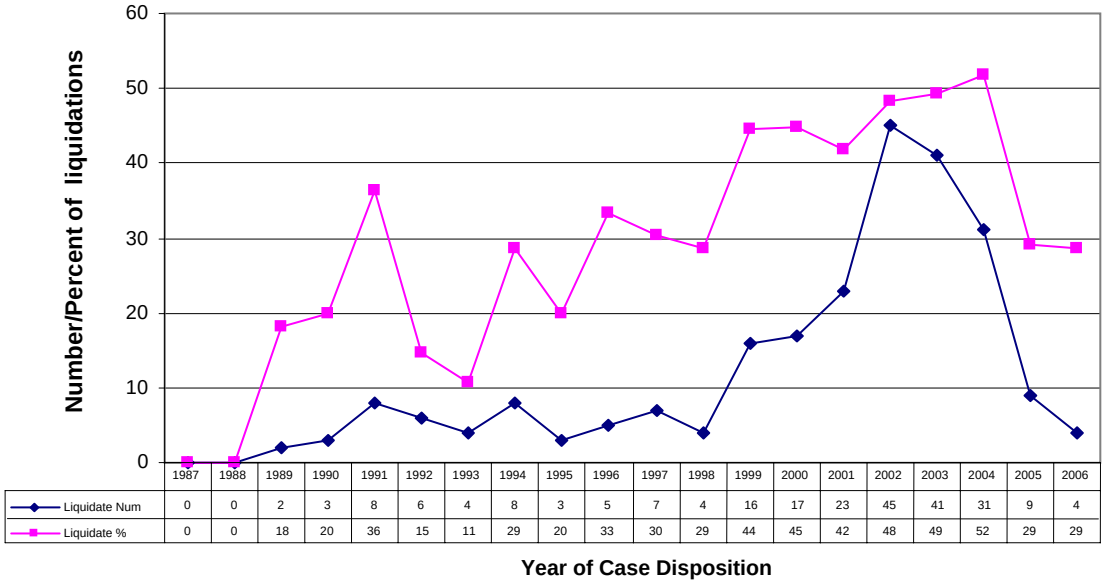
> The prevalence of asset sales under section 363(b) of the Bankruptcy Code . . . is attributable to many factors besides increasingly powerful creditors. Robust capital markets facilitate the pooling of massive amounts of capital by groups of investors, typically in the form of alternative investment vehicles such as private equity and leveraged buyout funds, hedge funds, and vulture funds, in order to purchase or control companies of sizes previously not thought possible. . . .

Miller & Waisman, *supra* note 131, at 156.

[162] Baird, *supra* note 6, at 75.

[163] A "liquidation" for this purpose is the Chapter 11 case of a large public company from which the debtor did not "emerge" as that term is defined in Lynn M. LoPucki's Bankruptcy Research Database. Generally speaking, a company emerges if it continues in business as a stand-alone company after confirmation of a Chapter 11 plan. A company does not emerge if it is sold pursuant to section 363 or if it is merged with a purchaser of substantial size under the plan. Lynn M. LoPucki, Protocols for the Bankruptcy Research Database (on file with the authors).

Figure. Number and Percentage of Liquidation Cases 1987-2006



	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Liquidate Num	0	0	2	3	8	6	4	8	3	5	7	4	16	17	23	45	41	31	9	4
Liquidate %	0	0	18	20	36	15	11	29	20	33	30	29	44	45	42	48	49	52	29	29

As shown, both the number and percentage of liquidations increased substantially, from 1988 to 2002 -- when Baird and Rasmussen initially declared the end of traditional reorganizations. But the numbers of liquidations began a steep decline the following year and the percentage of liquidations crashed in 2005. By 2006 both the numbers and the proportions of bankruptcy liquidations had returned to mid-1990s levels. The numbers and proportions of section 363 sales – not shown on the Figure -- declined even more precipitously.[164]

We interpret these recent reversals as proof that increasing market efficiency was not the principal force behind the earlier upward trends. Market efficiency has suffered no recent setback that might account for the trend's sharp reversal.

Instead, we see the numbers and proportions of liquidating bankruptcies as the product of numerous, constantly changing factors. They include debt levels, secured debt levels, interest rates, money supply, availability of bankruptcy alternatives such as assignments for the benefit of creditors, managerial attitudes, court competition, technology, fads, and a cyclical component. In the buildup to the boom that peaked in 2001 and 2002, reorganizations increased along with liquidations, suggesting that the new liquidations were companies that would not have filed either kind of case in an

[164] The numbers of section 363 sales of large public companies fell from 17 in 2003 to five in 2004, and one in 2005. In 2006 there were two. Lynn M. LoPucki, Bankruptcy Research Database (on filed with the authors).

earlier era, rather than companies that would have filed reorganizations.[165] Only through a regression analysis that controlled for other kinds of changes could one credibly attribute some portion of the increase in sales to supposed improvements in the market for large public companies. The simple increase in the numbers and proportions of bankruptcy going concern sales prior to 2004 does not warrant the conclusion that the market for large public companies has improved.

V. CONCLUSIONS

Bankruptcy going concern sales can provide a substitute for bankruptcy reorganization only if, for a given company, the sale can realize at least as much value as a reorganization. Otherwise, reorganization should continue in order to maximize value.

We found that, on average, reorganizations yielded 80% or 91% of book value, while sales yielded only 35% of book value alone. Those findings warrant the conclusion that, on average, companies sell for less than would be realized in their reorganizations. To reach a contrary conclusion, one might suppose that the best and strongest companies were reorganized while the worst and weakest were sold. But if debtors could sell their companies for as much as they would bring in reorganization, the statistically significant difference in sale and reorganization recoveries would never have arisen. Sale or reorganization would have been equally likely for each company and the pattern of sale or reorganization choices random. That the difference arose demonstrates at minimum that reorganization was sufficiently preferable to sale in high-recovery cases to warrant the cost of sorting the cases. If the reorganized companies had to be sold in some new regime, whatever reorganization advantage caused them to sort themselves under the old regime would be lost.

Our finding that the sale-reorganization variable remains highly significant even when we control for the financial condition of the company suggests considerably more. It is theoretically possible that large differences in value existed among the companies studied, those differences were not reflected in either book values or EBITDA, and that, for some reason not yet explained, those differences were highly correlated with the choice between sale and reorganization, with the weaker companies choosing sale. But barring such unlikely, unidentified differences, our findings demonstrate that large public companies were sold in bankruptcy going concern sales for less than half what they would have been worth in reorganization.

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[165] For example, In Esopus Creek Value LP v. Hauf, 2006 Del. Ch. LEXIS 200 (2006), a corporation not in financial difficulty file a bankruptcy case and sought to sell all or substantially all of its assets under section 363. The purpose of the filing was to avoid Delaware's requirement of a shareholder vote as a prerequisite to sale.

Possible explanations for this market failure are not in short supply. The managers who decided to sell these companies rather than reorganize them frequently had conflicts of interest. So did the investment bankers who advised the managers and solicited bids. The stalking horse bidders received protections in the form of break up fees and substantial minimum bid increments that discouraged other bidders. The costs of participating in the bidding were high because the companies' situations were complex and changed rapidly. Bidders other than the stalking horse had little chance of winning. As a result, only a single bidder appeared at most bankruptcy auctions. The process from the hiring of the financial advisor to the court's order approving the sale was generally leisurely, averaging just under a year. In only five of 29 cases (17%) did it take less than 180 days. But once the stalking horse was selected, the cases were fast-tracked. The average time from execution of the stalking horse contract to the auction was only 41 days – giving competing bidders little time to organize.

Together, these findings demonstrate, and at least partially explain, the failure of going concern sales as an alternative to reorganization. They also provide substantial additional evidence that the bankruptcy courts are not fulfilling their obligation to insure that debtors in possession and their professionals act in the best interests of the debtors' estates when choosing between going concern sale and reorganization.

Appendix A-1: Sale/Reorganization Comparison
Sale Cases

Debtor name	Filing date	Sale order date	Confirmation date	Days filing to sale	Days filing to confirmation	Book value at filing (millions)	Sale price (millions)	Ratio Sale price to Book value (millions)	Sale Type	Ratio EBITDA to Total assets
Impath, Inc.	9/28/2003	4/7/2004	3/21/2005	192	540	193	237	123%	Going concern	21%
Budget Group Inc.	7/29/2002	11/8/2002	4/20/2004	102	631	4,047	3,529	87%	Going concern	16%
Casual Male Corporation	5/18/2001	5/7/2002	11/19/2003	354	915	299	222	74%	Going concern	15%
Rouge Industries, Inc.	10/23/2003	12/22/2003	Pending	60		558	370	66%	Going concern	-8%
Coho Energy, Inc. (2002)	2/6/2002	8/14/2002	2/3/2003	189	362	351	222	63%	Not classified	11%
Einstein Noah Bagel Corp.	4/27/2000	6/1/2001	3/27/2002	400	699	361	209	58%	Going concern	7%
National Steel Corporation	3/6/2002	4/21/2003	10/23/2003	411	596	2,308	1,050	46%	Going concern	-13%
U.S. Aggregates, Inc.	3/11/2002	5/23/2002	9/25/2002	73	198	333	141	42%	Going concern	5%
Grand Union (2000)	10/3/2000	12/8/2000	10/8/2002	66	735	750	302	40%	Going concern	10%
Polaroid Corp	10/12/2001	7/5/2002	11/21/2003	266	770	1,810	715	40%	Going concern	11%
Phar-Mor, Inc. (2001)	9/24/2001	7/18/2002	3/12/2003	297	534	345	134	39%	Piecemeal	2%
Weirton Steel Corp.	5/19/2003	4/22/2004	8/24/2004	339	463	654	238	36%	Going concern	-5%
Asia Global Crossing, Ltd.	11/17/2002	1/29/2003	Converted	73		2,280	791	35%	Going concern	-2%
Allegiance Telecom Inc.	5/14/2003	2/20/2004	6/10/2004	282	393	1,441	492	34%	Going concern	-5%
Bethlehem Steel Corp.	10/15/2001	4/22/2003	10/23/2003	554	738	4,200	1,297	31%	Going concern	3%
ANC Rental Corp	11/13/2001	8/21/2003	4/15/2004	646	884	6,498	1,864	29%	Going concern	18%
Cone Mills Corp	9/24/2003	2/10/2004	4/17/2005	139	571	318	90	28%	Going concern	16%
Kellstrom	2/20/2002	6/13/2002	8/5/2003	113	531	371	101	27%	Going concern	10%
divine, Inc.	2/25/2003	5/12/2003	12/8/2004	76	652	271	60	22%	Going concern	-24%
Pillowtex Corp. (2003)	7/30/2003	10/7/2003	Pending	69		548	121	22%	Piecemeal	-1%
Wherehouse Entertainment	1/21/2003	9/29/2003	3/12/2004	251	416	228	45	20%	Going concern	5%
ABC-NACO, Inc.	10/18/2001	12/11/2001	Dismissed	54		383	67	17%	Going concern	1%
Flooring America	6/15/2000	12/15/2000	5/12/2003	183	1,061	343	59	17%	Piecemeal	-9%
IT Group, Inc.	1/16/2002	4/25/2002	4/5/2004	99	810	1,345	156	12%	Going concern	11%
International Fibercom, Inc.	2/13/2002	4/16/2002	Converted	62		177	20	11%	Going concern	14%
DTI Holdings, Inc.	12/31/2001	2/13/2003	6/11/2003	409	527	393	39	10%	Going concern	
Velocita Corp.	5/30/2002	11/7/2002	7/21/2003	161	417	483	37	8%	Piecemeal	
Genuity Inc.	11/27/2002	1/24/2003	11/28/2003	58	366	1,944	137	7%	Going concern	-34%
Globalstar LP	2/15/2002	12/2/2003	6/17/2004	655	853	573	34	6%	Going concern	
Network Plus Corp.	2/5/2002	3/20/2002	Converted	43		433	16	4%	Going concern	-13%
AVERAGE				223	611	1,141	427	35%		2%

Appendix A-2: Sale/Reorganization Comparison
Reorganization Cases

Debtor name	Filing date	Confirmation date	Days filing to confirmation	Book asset value at filing (millions)	Fresh start asset value (millions)	Ratio Fresh start to Book asset value	Market cap value (millions)	Ratio Market cap to Book asset value	Ratio EBITDA to Total assets
SpectraSite Holdings, Inc.	11/15/2002	1/28/2003	74	742	1,681	227%	1,645	222%	3%
Tokheim Corp. (2000)	8/28/2000	10/4/2000	37	250	446	179%	470	188%	8%
DDI Corp.	8/20/2003	12/2/2003	104	203	291	144%	549	271%	0%
Sterling Chemicals Holdings, Inc.	7/16/2001	11/20/2002	492	621	887	143%	701	113%	23%
Chart Industries Inc.	7/8/2003	9/4/2003	58	268	313	117%	339	127%	8%
Exide Technologies	4/15/2002	4/21/2004	737	2,073	2,229	108%	1,774	86%	5%
GenTek, Inc.	10/11/2002	10/7/2003	361	1,220	1,180	97%	1,224	100%	7%
Paragon Trade Brands, Inc.	1/6/1998	1/13/2000	737	377	347	92%			16%
US Airways, Inc. (2002)	8/11/2002	3/18/2003	219	7,807	7,153	92%	7,386	95%	-8%
Vencor, Inc.	9/13/1999	3/16/2001	550	1,718	1,514	88%	1,749	102%	9%
NRG Energy, Inc. (2003)	5/14/2003	11/25/2003	195	10,310	8,492	82%	8,354	81%	4%
Vista Eyecare, Inc.	4/5/2000	5/18/2001	408	220	178	81%	140	63%	10%
Neenah Foundry Company	8/5/2003	9/26/2003	52	494	394	80%			10%
Arch Wireless Inc.	11/9/2001	5/15/2002	187	696	540	77%	445	64%	-1%
Purina Mills, Inc.	10/28/1999	4/5/2000	160	774	575	74%	478	62%	
Sunterra Corp	5/31/2000	6/21/2002	751	1,058	734	69%	566	54%	10%
Superior Telecom, Inc.	3/3/2003	10/22/2003	233	862	580	67%	637	74%	12%
Polymer Group, Inc.	5/11/2002	1/3/2003	237	1,129	759	67%	764	68%	8%
NTL, Inc.	5/8/2002	9/5/2002	120	16,834	10,851	64%	7,829	47%	4%
Wheeling Pittsburgh Corp. (2000)	11/16/2000	6/18/2003	944	1,200	764	64%	893	74%	5%
Assisted Living Concepts, Inc.	10/1/2001	12/5/2001	65	331	200	60%			3%
Conseco, Inc.	12/17/2002	9/9/2003	266	52,286	30,668	59%	28,870	55%	3%
Pinnacle Holdings, Inc.	5/21/2002	10/10/2002	142	1,003	557	56%	1,544	154%	0%
Redback Networks Inc.	11/3/2003	12/22/2003	49	592	291	49%	378	64%	-16%
AMF Bowling, Inc.	7/3/2001	2/1/2002	213	1,683	786	47%	568	34%	5%
Williams Communications Group	4/22/2002	9/30/2002	161	5,992	2,610	44%	2,335	39%	-2%
Sun HealthCare Group, Inc.	10/15/1999	2/6/2002	845	1,800	769	43%	679	38%	9%
XO Communications, Inc.	6/17/2002	11/15/2002	151	8,700	1,371	16%	1,250	14%	-4%
American Homestar Corp.	1/11/2001	8/16/2001	217	363	57	16%			3%
Applied Magnetics Corporation	1/7/2000	11/5/2001	668	227	27	12%			
AVERAGE			314	4,061	2,575	80%	2,863	91%	5%

Appendix B. Reasons Debtors Gave for Sales		
Company Name	**Reason given for sale**	**Code**
ABC-NACO, Inc.	Court order: “Debtors are unable to fund a restructuring of their operations"	no
Allegiance Telecom Inc.	"[T]he Debtors have determined that the Sale Transactions would maximize the value of their estates."	maximize
ANC Rental Corp	Debtor attempted reorganization; there was "substantial uncertainty about continuing as a going concern" and "sale is the best way to go"	weak no
Asia Global Crossing, Ltd.	"stand alone business plan infeasible"	no
Bethlehem Steel Corp.	"The sale must be approved and consummated promptly in order to preserve viability of going concern."	no
Budget Group Inc.	"unable to craft a stand alone reorganization plan"	no
Casual Male Corporation	Study of feasibility showed stand-alone reorganization "was neither in Debtor's nor Creditors best interests"	maximize
Coho Energy, Inc. (2002)	Creation of a viable reorganized entity was not feasible	no
Cone Mills Corp	"no ability to operate independently as a going concern"	no
divine, Inc.	did not believe it could get sufficient capital within the time necessary [to survive] without selling	weak no
DTI Holdings, Inc.	Because a plan would provide less immediate liquidity to creditors, met creditors' wishes	maximize
Einstein Noah Bagel Corp.	Debtor had "no apparent means for financing the Business upon emergence from Chapter 11"	no
Flooring America	Suppliers' refusal to deliver product left debtor ""unable to continue to operate"	no
Genuity Inc.	Could not find any stand alone approach that had break even cash flow	no
Globalstar LP	Lacked sufficient funding and would run out of cash for admin expenses "within weeks"	no

Grand Union (2000)	Prepetition lending fully drawn, prepetition lender refused more, postpetition lenders required sale	no
Impath, Inc.	sale would result in greater value to creditors and shareholders than would any restructuring alternative	maximize
International Fibercom, Inc.	Preliminary exit strategy is to sell its businesses in order to maximize value and recovery	maximize
IT Group, Inc.	Examiner found ""internal reorganization not viable"	no
Kellstrom	"best opportunity to preserve the going-concern value of the assets"	weak no
National Steel Corporation	(1) to overcome legacy, labor costs, (2) maximize value of assets, (3) to preserve going concern	maximize
Network Plus Corp.	Not enough money to continue operating, filed to protect customers, maintain jobs, maximize value	no
Phar-Mor, Inc. (2001)	Restriction of trade credit prevented inventory replenishment, sale in "best interests of all creditors and shareholders"	weak no
Pillowtex Corp. (2003)	Hedged claim of inability to continue	weak no
Polaroid Corp	"melting ice cube"	no
Rouge Industries, Inc.	"sale was the option most likely to yield the most value for the debtors' stakeholders"	maximize
U.S. Aggregates, Inc.	Going concern value exceeded piecemeal sale value. No reorganization plan was possible.	no
Velocita Corp.	"unlikely that debtors would be able to reorganize" because debtor was "unable to obtain sufficient postpetition funding"	no
Weirton Steel Corp.	"financial status of Weirton on a stand alone basis would remain precarious at best"	weak no
Wherehouse Entertainment, Inc.	Sale was "best manner in which to maximize value to creditors and is superior . . . to standalone plan"	maximize

Appendix C-1: Sale Characteristics

Debtor name	Sale type	Sale explanation	Stalking horse price (millions)	Sale price (millions)	Percent increase over stalk price	Ratio of cash to sale price	Ratio of sale price to book asset value	Ratio breakup charges to Sale price	Ratio of Initial bid increment to Sale price	Number of bidders at auction
Impath, Inc.	Going concern	Maximize	237	237	0%	100%	123%	2.6%	3.4%	1
Budget Group Inc.	Going concern	Not viable	3,510	3,529	1%	3%	87%	0.4%	0.1%	1
Casual Male Corporation	Going concern	Maximize	179	222	24%	81%	74%	1.3%	1.9%	2
Rouge Industries, Inc.	Going concern	Maximize	310	370	20%	77%	66%	1.8%	2.4%	2
Coho Energy, Inc. (2002)	Not a business	Not viable		222		100%	63%	0.0%		5
Einstein Noah Bagel Corp.	Going concern	Not viable	168	209	25%	68%	58%	2.4%	3.6%	2
National Steel Corporation	Going concern	Maximize	1,125	1,050	-7%	81%	46%	1.4%	1.5%	2
U.S. Aggregates, Inc.	Going concern	Not viable	141	141	0%	100%	42%	4.3%	0.1%	1
Grand Union (2000)	Going concern	Not viable	302	302	0%	100%	40%	3.4%	7.0%	1
Polaroid Corp	Going concern	Not viable	465	715	54%	31%	40%	0.7%	0.2%	1
Phar-Mor, Inc. (2001)	Piecemeal	Not viable		134		100%	39%	0.0%		2
Weirton Steel Corp.	Going concern	Weak not	255	238	-7%	64%	36%	2.2%	2.4%	2
Asia Global Crossing, Ltd.	Going concern	Not viable	782	791	1%	11%	35%	1.5%	2.2%	1
Allegiance Telecom Inc.	Going concern	Maximize	390	492	26%	65%	34%	2.6%	5.4%	2
Bethlehem Steel Corp.	Going concern	Not viable	1,377	1,297	-6%	67%	31%	2.1%	3.4%	1
ANC Rental Corp	Going concern	Weak not	1,860	1,864	0%	13%	29%	0.6%	0.1%	3
Cone Mills Corp	Going concern	Not viable	90	90	0%	51%	28%	2.8%	3.1%	1
Kellstrom	Going concern	Weak not	96	101	5%	100%	27%	3.3%	4.5%	1
divine, Inc.	Going concern	Weak not	38	60	58%	81%	22%	1.9%	3.3%	
Pillowtex Corp. (2003)	Piecemeal	Weak not	56	121	116%	100%	22%	1.9%	5.8%	3
Wherehouse Entertainment	Going concern	Maximize		45		89%	20%			2
ABC-NACO, Inc.	Going concern	Not viable	78	67	-14%	99%	17%	3.4%	2.9%	1
Flooring America	Piecemeal	Not viable		59		100%	17%			
IT Group, Inc.	Going concern	Not viable	155	156	1%	34%	12%	3.1%	0.0%	1
International Fibercom, Inc.	Going concern	Maximize		20		100%	11%	3.7%		
DTI Holdings, Inc.	Going concern	Maximize		39		96%	10%	1.8%		1
Velocita Corp.	Piecemeal	Not viable	37	37	0%	5%	8%	0.0%	9.5%	1
Genuity Inc.	Going concern	Not viable	242	137	-43%	100%	7%	9.5%	10.3%	1
Globalstar LP	Going concern	Not viable	34	34	0%	29%	6%		11.9%	1
Network Plus Corp.	Going concern	Not viable				100%	4%	0.0%		
AVERAGE			519	441	11%	72%	35%	2.2%	3.7%	1.6

Appendix C-2: Sale Characteristics

Debtor name	Stalking horse type	Buyer type	Sale benefit to CEO	Days from retention of financial advisor to filing	Days from retention of financial advisor to sale order	Days from stalking horse contract to order fixing bid procedure	Days from order fixing bid procedure to auction	Court city
Impath, Inc.	strategic	strategic		19	211	27	1	New York
Budget Group Inc.	strategic	strategic		250	352	19	42	Wilmington
Casual Male Corporation	financial	financial	Severance	60	414	14	33	New York
Rouge Industries, Inc.	strategic	strategic	Job	126	186	12	17	Wilmington
Coho Energy, Inc. (2002)	No stalk horse	strategic		82	271		30	Dallas
Einstein Noah Bagel Corp.	financial	strategic	Equity, severance	0	400	23	88	Phoenix
National Steel Corporation	strategic	strategic		62	473	7	69	Chicago
U.S. Aggregates, Inc.	strategic	strategic		460	533	32	36	Reno
Grand Union (2000)	strategic	strategic		40	106	-13	17	Newark
Polaroid Corp	financial	financial	Job, equity	93	359	22	47	Wilmington
Phar-Mor, Inc. (2001)	No stalk horse	financial	Severance, buyer	23	320		19	Youngstown
Weirton Steel Corp.	strategic	strategic		32	371	12	35	Wheeling
Asia Global Crossing, Ltd.	strategic	strategic	Job, consulting	348	421	23	30	New York
Allegiance Telecom Inc.	strategic	strategic		206	488	28	28	New York
Bethlehem Steel Corp.	strategic	strategic		122	676	15	20	New York
ANC Rental Corp	financial	financial	Consulting	-44	602	14	29	Wilmington
Cone Mills Corp	strategic	strategic	Job	586	725	17	78	Wilmington
Kellstrom	financial	financial		342	455	47	37	Wilmington
divine, Inc.	financial	both types		25	101	7	13	Boston
Pillowtex Corp. (2003)	financial	financial		257	326	30	36	Wilmington
Wherehouse Entertainment	strategic	strategic		28	279	-39	32	Wilmington
ABC-NACO, Inc.	financial	financial	Severance	5	59	-29	30	Chicago
Flooring America	financial	financial		128	311	34	1	Atlanta
IT Group, Inc.	strategic	strategic		33	132	64	21	Wilmington
International Fibercom, Inc.	No auction	financial		90	152			Phoenix
DTI Holdings, Inc.	strategic	strategic				3	17	St. Louis
Velocita Corp.	strategic	strategic		257	418	-36	21	Newark
Genuity Inc.	strategic	strategic	Job	125	183	19	30	New York
Globalstar LP	financial	financial	Consulting	-53	602	3	0	Wilmington
Network Plus Corp.	No stalk horse	strategic		204	247		15	Wilmington
AVERAGE				135	351	14	30	