Claims & Opinions an Exchange of Views: Game Theory and Bankruptcy Reorganizations

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Everyone knows that the place to look for the source of suspicious results is the description at the start of the model. If that description is not clear, the reader deduces that the model's counterintuitive results arise from bad assumptions concealed in poor writing.¹

I. INTRODUCTION

In an innovative and challenging article,² Professors Douglas G. Baird and Randal C. Picker employ game theory to illustrate the meaning of the Bankruptcy Code’s³ automatic stay and the controversial “new
value exception" to the absolute priority rule. According to their research, the automatic stay causes secured creditors to waive their cram down rights, while the new value exception to the absolute priority rule allows shareholders to foist low liquidation values on secured creditors.

Even though these important discoveries apparently contradict each other, Baird and Picker attribute profound significance to their research. According to Baird and Picker, "[o]nce the dynamics of bargaining in bankruptcy are understood, a number of the central assumptions of modern bankruptcy scholarship need to be revised." However, a careful reading of their article reveals that these central assumptions of bankruptcy scholarship are not in need of revision after all. Rather, the discoveries of Baird and Picker are only the result of serious blunders in legal research and a priori reasoning.

A. Their Legal Error

Baird and Picker's legal error involves bankruptcy's automatic stay provision. The automatic stay is the statutory injunction requiring creditors to stop all postpetition collection activities other than those that the Bankruptcy Code authorizes. The automatic stay thus guarantees that the bankruptcy court will have a monopoly over the fate of the bankrupt


Baird & Picker, supra note 2, at 324 ("As long as Creditor has no ability to lift the automatic stay, Manager needs to pay no attention to [liquidation] value when she bargains.").

Id. at 325 ("[T]he new value exception enables Manager to force Creditor to take a share of Firm equal to the liquidation value of Firm's assets. She can capture for herself the difference, the entire going-concern surplus, without needing to reach a consensual bargain.").

These discoveries are contradictory because, on the one hand, the automatic stay makes cram down useless, but, on the other hand, the secured creditors can be made to take the liquidation value of their collateral — a cram down idea. Thus, Baird & Picker cannot decide whether cram down exists. See infra text accompanying notes 39, 69.

Baird & Picker, supra note 2, at 312; see also id. at 349 (stating that "our model also allows us to question some of the basic assumptions of bankruptcy scholarship of the past decade").

firm.

Such an injunction obviously strengthens the hand of management in any negotiation over restructuring the firm. Baird and Picker, however, show something that is not obvious: The automatic stay also compels a secured creditor to waive the protection known colloquially as "cram down." Roughly speaking, cram down guarantees that a secured creditor will obtain the value of the secured creditor's collateral from the reorganization proceeding.

This comment will show that Baird and Picker support their conclusion — that the automatic stay negates cram down — with defective legal research. Baird and Picker assume that, while a secured creditor can block confirmation of a plan that violates the creditor's cram down rights, the creditor cannot obtain relief from the automatic stay, even though noconfirmable plan has been proposed. In the Baird and Picker model, the secured creditor can recover nothing without kicking back to management some of the value that cram down guarantees to the creditor.

This view misapprehends the position of the secured creditor. The Supreme Court of the United States, in United Savings Ass'n v. Timbers of Inwood Forest Associates, ruled that a debtor's failure to propose a viable plan within a reasonable time constitutes routine grounds for relief from the automatic stay. Therefore, while the automatic stay necessarily strengthens the negotiating position of a debtor, it does not emasculate cram down, as Baird and Picker aggressively claim. Only an automatic stay that can never be removed does so.

B. Their Logical Error

Baird and Picker's second mistake, a purely logical error, involves the

* Baird & Picker state: "The traditional view holds that the automatic stay does not itself prevent the secured creditor from enjoying the liquidation value of the assets. Under some circumstances, however, the automatic stay and the dynamics of bargaining may make the liquidation value of the assets irrelevant." Baird & Picker, supra note 2, at 313. Baird & Picker also state: [T]he liquidation value of the asset that Creditor would be able to enjoy outside of bankruptcy becomes irrelevant. As long as Creditor has no ability to lift the automatic stay, Manager needs to pay no attention to that value when she bargains. The Bankruptcy Code gives Creditor the right to prevent the confirmation of a plan that does not give it the liquidation value of Firm's assets, but this right does it no good in any negotiations with Manager.

Id. at 324.


11 Baird & Picker cite Timbers but do not adopt the Court's description of the automatic stay in their model. Baird & Picker, supra note 2, at 323 n.30. Rather, they write that, "in a case in which Firm does have a going-concern surplus, most courts are unlikely ever to lift the stay." Id. at 323.
new value exception to the absolute priority rule. According to Baird and Picker, the new value exception allows old shareholders to “cash out” uncooperative secured creditors at low valuations. In fact, no causal connection exists between the new value exception and cash-out of uncooperative creditors.

According to the absolute priority rule, if a class of unsecured creditors does not receive payment in full under a plan of reorganization, that class can insist that “the holder of any claim or interest that is junior to the claims of such class will not receive or retain under the plan . . . any property.” Some courts and commentators suggest that the absolute priority rule does not apply if a former equity claimant agrees to forego the old equity interest and instead purchases newly issued stock in exchange for new value. This scenario describes the new value exception to the absolute priority rule.

For example, suppose that a firm (Firm) is worth $3 million liquidated and $5 million as a going concern. Suppose further that a reorganization plan proposes to give a secured creditor (Creditor) rights worth $3 million and the general creditors rights worth $2 million. According to the absolute priority rule if general creditors claim over $2 million, they may insist that the former equity claimants (Manager) receive no property under the plan. On the other hand, under the new value exception, Firm can issue new shares to Manager for new value.

Critics assert that the new value exception provides Manager with an opportunity to arbitrage between a bankruptcy court’s low valuation of Firm and Firm’s real market value. For example, suppose a bankruptcy
court values Firm at $5 million and allows Manager to buy all the newly issued common shares of Firm for a dollar. If Firm is really worth $6 million, Manager has arbitraged between the poor valuation and the real market value. In other words, Manager bought $1 million in equity for a dollar. For this reason, the new value exception is controversial.

Baird and Picker recognize the existence of the above argument but instead attempt to formulate an original theory. According to their analysis, the new value exception allows Manager to cash out Creditor for a low liquidation value while reserving the going concern surplus for Manager.

As mentioned previously, no logical connection exists between the new value exception and the cash-out opportunity that Baird and Picker describe. Indeed, the cash-out opportunity does not depend on the new value exception at all. Rather, it comes from cram down, whereby a plan can be confirmed over the opposition of Creditor, provided that the plan guarantees Creditor the value of its collateral. Cram down will exist even if absolute priority is applied without exception. Therefore, to the extent that Baird and Picker wished to provide ammunition for the growing right-wing attack on the new value exception, they failed.

Baird and Picker misstate the applicable legal rules and then make a key logical error. Their model does not prove that, in real life, cram down does not exist or that the new value exception allows cram down at liquidation values. Because of this essential shortcoming, it is unnecessary at this time to revise the "central assumptions of modern bankruptcy scholarship," as Baird and Picker recommend.

II. ASSUMPTIONS OF THE MODELS

Baird and Picker explore the effect of the automatic stay and the new value exception on bargaining. Accordingly, they combine the following factors to generate four different game theory models:

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17 For a general discussion of arbitrage opportunities presented in the Bankruptcy Code, see David Gray Carlson, Undersecured Claims Under the Bankruptcy Code Sections 506(a) and 1111(b): Second Looks at Judicial Valuations of Collateral, 6 BANKR. DEV. J. 253 (1989).

18 The Solicitor General requested the Supreme Court to declare the exception dead, but the Court declined to do so. Norwest Bank Worthington v. Ahlers, 485 U.S. 197, 203 n.3 (1988).


20 Id. at 327-28.

21 Id. at 312.
### Automatic Stay

<table>
<thead>
<tr>
<th>New Value Exception</th>
<th>No</th>
<th>Yes</th>
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<tr>
<td>No</td>
<td>1</td>
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<td>Yes</td>
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Model One contains neither the automatic stay nor the new value exception, while Model Four includes both of them. Models Two and Three each have one of the features but not both.

The models share the following background assumptions:

1. Firm's going concern value ($V_M$) exceeds liquidation value ($V_C$). That is, $V_M > V_C$.  
2. Creditor's perfected security interest encumbers all assets.
3. Creditor's claim dwarfs any conceivable value attributed to Firm, whether it be $V_C$ or $V_M$. Essentially, to comprehend the Baird and Picker model, the reader should treat the claim of Creditor as infinite because Baird and Picker imply that Creditor cannot be paid off or cashed out without the aid of the new value exception. In contrast, suppose $V_C$ is $3$ million, $V_M$ is $5$ million, and the secured claim is $3.1$ million. On these numbers, Manager could always deprive Creditor of most of the going concern surplus simply by paying off the secured claim. However, because the secured claim is greater than any value of Firm, this simple redemption strategy is not available.
4. $V_M > V_C$ solely because of Manager’s entrepreneurial talent.

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22 Baird and Picker define $\Omega$ as “the greater of $V_M$ or the sum of $W_M$ and $V_C$.” *Id.* at 334. $V_M$ is the value of Firm if Manager remains in control of Firm. *Id.* $W_M$ is the amount of wages Manager foregoes voluntarily by staying with Firm. *Id.* at 333-34. As the appendix shows, $W_M$ is best set at zero so that $\Omega$ declines to the greater of $V_M$ or $V_C$. Yet when $V_C > V_M$, Firm ought to liquidate because no going concern value exists. As the Baird and Picker model pertains only to chapter 11 and not to chapter 7, we can ignore cases where $V_C > V_M$. This assumption, for purposes of this article, means that $V_M = \Omega$. This comment simplifies the Baird and Picker models by eliminating $\Omega$ as a variable and instead substituting $V_M$.

23 *Id.* at 319.

24 *Id.* at 314.

25 *Id.* at 325.


27 Baird & Picker, supra note 2, at 315, 339.
Manager can deprive any creditor of a share of $V_M$ simply by quitting Firm and pursuing other opportunities.

(5) Manager has the power, derived from the automatic stay, to stretch out a bankruptcy proceeding forever.\(^\text{28}\)

(6) Manager's monopoly power over $V_M$ is not complete: Creditor's consent is necessary for any chapter 11 plan.\(^\text{29}\) In two of the models, however, Manager can cash out Creditor at liquidation value, so Creditor has no such power.

(7) Manager always enjoys a minimum share of $V_M$: the opportunity cost of staying with Firm ($W_M$).\(^\text{30}\) Baird and Picker refer to this as Manager's "exit option."\(^\text{31}\) $W_M$ exists because the wage Manager chooses to pay itself from Firm is below the wage Manager could earn in the market.\(^\text{32}\) $W_M$ therefore constitutes wages that could be received elsewhere minus wages actually received from Firm.\(^\text{33}\)

(8) Manager and Creditor split $V_M$ evenly, so long as $0.5V_M > (V_C, W_M)$.\(^\text{34}\) This assumption, called "equal patience," is defined as equal rates of return on any investment.\(^\text{35}\)

(9) If $V_C > 0.5V_M$, Creditor will threaten to exit Firm and take $V_C$ through foreclosure, if legally permitted to do so, unless Manager pays Creditor $V_C$ through the chapter 11 plan. If Manager pays $V_C$, however,

\(^{28}\) Id. at 323; see also id. at 322 ("[F]or the sake of simplicity, we subsume within the notion of lifting the automatic stay any avenue open to Creditor, such as being able to confirm a liquidating plan, that allows it to reach and dispose of Firm's assets.").

\(^{29}\) Id. at 322.

\(^{30}\) Id. at 323-24.

\(^{31}\) Id. at 319.

\(^{32}\) Id. at 320 n.23.

\(^{33}\) Baird and Picker needlessly complicate their model by assuming that Manager receives a subcompetitive cash wage paid before $V_M$ is split. As a result, Manager must always receive the balance ($W_M$) from $V_M$. $W_M$ therefore constitutes Manager's minimum share of $V_M$.\(^\text{34}\)

If Baird and Picker assumed that Manager's cash wage precisely equaled Manager's opportunity cost, then Manager's share of $V_M$ would consist purely of economic rent. In such a case, $W_M = 0$, thereby considerably simplifying Baird and Picker's model; but because Manager must now capture part of $V_M$ to remain with Firm, $W_M$ constitutes a minimum that Manager must always receive.\(^\text{35}\)

At times, Baird and Picker claim that if Manager exits, Manager can still obtain $W_M$ from $V_M$ upon Firm's liquidation. Id. at 339 n.60 (stating that if Creditor forecloses, "Manager will insist on receiving at least her alternative wage $W_M$, leaving Creditor no more than" $V_M - W_M$). This assertion is clearly erroneous because $V_M$ represents the value of Firm as a going concern. Id. at 338. Additionally, while making the claim that Manager will receive $W_M$ from $V_M$ upon Firm's liquidation, Baird and Picker forget that $W_M$ is not the alternative wage but merely the difference between the alternative wage and what Manager chose to pay itself from Firm assets.

\(^{34}\) Baird & Picker, supra note 2, at 341.

\(^{35}\) Id. at 339.
Creditor demands no further share of $V_M$.

(10) Other general creditors have already acquiesced to any bargain Creditor and Manager reach. The price of their acquiescence is a "fixed cost." That is, $V_M$ comprehends that the general creditors already either negotiated or received payment. Of course, these creditors have absolute priority rights of their own, but they have waived these rights and will never assert them.

Many of these assumptions are in contradiction and, as a result, the models contain some impossible absurdities. These contradictions, however, are not pertinent to the two basic criticisms presented here. Those interested in how the modeling works (or, more precisely, how it careens out of control) are directed to the appendix.

III. THE FOUR MODELS

The following are the four models that Baird and Picker devised to explain the significance of the automatic stay and the new value exception to the absolute priority rule.

A. Model One: No Automatic Stay, No New Value Exception

In this first model, Creditor has the option of liquidating Firm because the automatic stay does not prevent this action. Therefore, it follows that any consensual reorganization plan must give Creditor at least liquidation value. If liquidation value, $V_C$, is less than $.5V_M$, Creditor's share is $.5V_M$. If $V_C > .5V_M$, Creditor must take $V_C$, and Manager takes $V_M - V_C$. Hence, Creditor's minimum share is the greater of $V_C$ or $.5V_M$. Baird and Picker diagram this result as follows:

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**Footnotes:**

36 *Id.* at 340-41. The appendix criticizes the assumption that Creditor can extract rents when $V_C < .5V_M$ but not when $V_C > .5V_M$

37 *Id.* at 316.
In this diagram, $V_M$ is a fixed amount. $V_C$ varies, moving from left to right on the abscissa. The solid and dotted lines represent the shares of Creditor and Manager, respectively. The straight line emanating from $0.5V_M$ indicates a fifty-fifty split of $V_M$, until $V_C > 0.5V_M$ on the abscissa. After that, Creditor obtains more than $0.5V_M$ or $V_C$.\footnote{Many problems are inherent in Model One; however, these problems are not pertinent to the main purpose of this comment. The appendix contains all critiques of this model.}

B. Model Two: Automatic Stay, No New Value Exception

In the second model, Baird and Picker assume the automatic stay can never be lifted so long as $V_M > V_C$. As a result of this assumption, Creditor and Manager split $V_M$ fifty-fifty, even as the liquidation value (the abscissa) registers a very high value. Baird and Picker diagram this point as follows:
In this model, Baird and Picker reach the important conclusion that Creditor loses the right to a minimum of liquidation value. In other words, cram down rights of secured creditors are meaningless because of the automatic stay. This claim that the automatic stay cancels cram down is revolutionary. Most lawyers believe that cram down rights constitute the minimum a secured creditor must receive, although a secured creditor can waive these rights.\(^3\)

Baird and Picker's assumption, however, is the product of incomplete legal research. If Manager cannot present a confirmable plan, the automatic stay can be lifted, either for cause, or because the encumbered assets are not necessary for an effective reorganization within the meaning of section 362(d)(2).\(^4\) The Supreme Court itself demanded this result. Ac-

\(^3\) See *In re Allegheny Int'l*, Inc., 118 B.R. 282, 299 (Bankr. W.D. Pa. 1990) ("[T]he technical provisions of the Code, such as the automatic stay, are designed to achieve the purposes of the reorganization process and to maximize results for all creditors. These provisions are not designed to create delay and pressure claimants to sell.").

\(^4\) See, e.g., Norwest Bank Worthington v. Ahlers, 485 U.S. 197, 199-201 (1988) (dismissing chapter 11 because the bankruptcy court could not confirm any plan); Novak v. DeRosa, 934 F.2d 401 (2d Cir. 1991) (dismissing the bankruptcy proceeding because of failure to present confirmable plan within statutory period); *In re 400 S. Main St.*, 128 B.R. 323 (Bankr. D. R.I. 1991) (granting secured creditor relief from the stay because debtor failed to demonstrate the reasonable possibility of
According to Justice Scalia in *United Savings Ass’n v. Timbers of Inwood Forest Associates*: 41

Once the movant under [section] 362(d)(2) establishes that he is an unsecured creditor, it is the burden of the debtor to establish that the collateral at issue is “necessary to an effective reorganization.” See [section] 362(g). What this requires is not merely a showing that if there is conceivably to be an effective reorganization, this property will be needed for it; but that the property is essential for an effective reorganization *that is in prospect*. This means . . . that there must be a “reasonable possibility of a successful reorganization within a reasonable time . . . .” And while the bankruptcy courts demand less detailed showings during the four months in which the debtor is given the exclusive right to put together a plan . . . , even within that period lack of any realistic prospect of effective reorganization will require [section] 362(d)(2) relief. 42

If one is inclined to give credence to Supreme Court dicta, 43 then the automatic stay does not require the secured creditor to waive cram down rights. Rather, *Timbers* indicates that a secured creditor may have relief from the automatic stay when Manager insists on a kickback from the cram down. This implies that Model One is a closer approximation of the automatic stay, as it has been authoritatively interpreted, than Model

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42 *Id.* at 374-77 (footnotes and citations omitted). This dicta resolved an earlier conflict in cases that were either very pro-debtor or very anti-debtor. *Compare In re Rassier, 85 B.R. 524, 527-30 (Bankr. D. Minn. 1988)* (ruling that a debtor need not show likelihood of a successful plan) *with In re Planned Sys., Inc., 78 B.R. 852, 865-66 (Bankr. S.D. Ohio 1987)* (holding that the plan must be feasible).

The definition of “effective reorganization” articulated by the Supreme Court in the Timbers case necessarily implicates, to a degree, consideration of the plan confirmation standards of 11 U.S.C. § 1129. Clearly, “effective reorganization” must mean that confirmation of a reorganization plan in the near future is within the realm of possibility. We agree with the Debtor that the requirements for successful opposition to a lift stay motion under 11 U.S.C. § 362 (d)(2) is not to be equated with sustaining the burden of confirming a reorganization plan and that a lift stay hearing should not be transformed into a confirmation hearing. The “effective reorganization” requirement enunciated by the Supreme Court does, however, require a showing by a debtor and a determination by the bankruptcy court that a proposed or contemplated plan is not patently unconfirmable and has a realistic chance of being confirmed.

Having determined that the automatic stay obliterates cram down protection for secured creditors, Baird and Picker next advocate extending the permanent automatic stay to cases where a going concern surplus does not exist, so that Creditor will lose its collateral in cases now relegated to chapter 7:

At some point . . . Manager’s alternative wage and the liquidation value of the assets equals the value of Firm \( (W_M + V_C = V_M = \mathcal{O}) \). At this point, there is no going concern surplus, and Creditor will be able to lift the automatic stay and receive the liquidation value of the assets. The payoff to Creditor suddenly jumps from its bargained-for share to the liquidation value of the assets.

It is hard to find a normative justification for this discontinuity. In a world of uncertainty, the discontinuity introduces a high level of variance into the payoffs, as a minimal difference in the perceived liquidation value of the assets may determine whether the stay is lifted or maintained. As we have shown, the ability to lift the stay . . . has substantial consequences for the division of Firm between Creditor and Manager.46

In other words, in the name of the previously unknown principle of “continuity,” Baird and Picker assert that the permanent automatic stay should apply even where a negative going concern surplus exists. Even in a chapter 7 case, if the bankruptcy trustees expropriate collateral, their

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44 Baird and Picker assure us that “[t]he permanent stay model tracks existing law when Firm has value as a going concern; the full exit model tracks it when it does not.” Baird & Picker, supra note 2, at 342. However, very late in their article, Baird and Picker concede that perhaps a nonremovable automatic stay is not realistic. “For example,” they write, “a bankruptcy judge’s willingness to lift the automatic stay may turn in some measure on the bargaining position that Manager takes. Her unwillingness to offer Creditor the liquidation value of the assets may induce the judge to lift the stay or threaten to lift it.” Id. at 348. This proposition is the law of bankruptcy which, if introduced into Baird and Picker’s model, eliminates all distinction between Models One and Two. The automatic stay would then cohere with cram down, per the ordinary assumptions of bankruptcy scholarship that Baird and Picker wish to attack.

One of the claims Baird and Picker advance for their model is that it is empirically testable. Id. at 348 (“[O]ur model . . . predicts that, when Creditor cannot lift the automatic stay and Manager’s exit option is weak, Creditor will receive only its bargained-for share [i.e., less than liquidation value].”). But if the automatic stay of their model does not exist, Baird and Picker are immune from empirical disproof.

46 Baird & Picker, supra note 2, at 342-43. As demonstrated in the appendix, \( W_M \) is an economically irrational self-imposed pay cut by Manager. In a well-constructed model, \( W_M = 0 \) because Manager can pay itself the competitive value of its services to Firm. Hence, Baird and Picker effectively speak about \( V_C > V_M \) in a chapter 7 liquidation case.
winter of discontinuity becomes a glorious summer by virtue of the sunny automatic stay.46

Baird and Picker worry that the discontinuous quality of the automatic stay cannot be justified, but, in fact, this justification is easy. The whole purpose of chapter 11 is to preserve a going concern surplus which might be lost in a liquidation sale. Therefore, the automatic stay should restrain an undersecured creditor when \( V_M > V_C \); it should not restrain an undersecured creditor when \( V_M < V_C \).47 To the contrary, in chapter 7, the trustee must show that debtor equity exists to justify the stay.48 Because the secured creditor cannot be trusted to maximize this debtor equity, the Bankruptcy Code insists that the trustee have control of the liquidation procedure when debtor equity exists. In both cases, the automatic stay restrains the secured creditor only when extra value in the collateral would otherwise be lost to the general creditors.

If the automatic stay can never be removed in either chapter 7 or chapter 11, as Baird and Picker advocate, and if Creditor must therefore waive its cram down rights, it might be said that Creditor has no security interest whatsoever. A secured creditor that can never repossess collateral and that has no priority to assets vis-a-vis other creditors is precisely identical to a general unsecured creditor.49 In short, Baird and Picker advocate the abolition of security interests in bankruptcy by suggesting that a permanent automatic stay be extended from chapter 11 to chapter 7.

This comment illustrates that Baird and Picker described the features

46 The view that the automatic stay should always apply permanently, regardless of whether Firm has a going concern surplus, leads to bargaining as the only means of dividing the value of Firm. Yet Baird and Picker opine that bargaining is a bad thing and that Manager should have a low cash-out option (80% of liquidation value). See infra note 59. Hence, Baird and Picker are in a state of contradiction on the morality of bankruptcy bargaining.

47 This proposition is true even when no debtor equity exists in the assets, as Baird and Picker assume throughout their article. According to § 362(d)(2) of the Bankruptcy Code, the bankruptcy court must lift the automatic stay when no debtor equity exists and when the debtor does not need the assets for an effective reorganization. 11 U.S.C. § 362(d)(2) (1988).


49 Baird and Picker recognize the validity of this statement. In advocating the benefit of a nonremovable automatic stay, they assert: "[I]t is not obvious to what extent the priority of Creditor should be recognized. A large part of the value of Firm may result from investments in human capital on the part of Manager." Baird & Picker, supra note 2, at 348. This anti-market suggestion is remarkable, coming from University of Chicago law professors. It presupposes that distributions ought to be based on some natural law notion of desert, rather than on ex ante contract, even with the risk of economic dislocation resulting from parties reacting strategically to such a proposal. In fact, guaranteeing Manager a return on investment creates the wrong incentives, constituting a form of socialism or protectionism for the entrepreneurial class. Such a view is quite contrary to the official Chicago Law School dogma.
of an automatic stay that does not exist. They have failed to understand the doctrinal materials they wish to explain. Admittedly, this criticism of law-and-economics scholarship is somewhat simplistic. It may be taken as axiomatic that, for every economic theory that fails to explains positive law, another theory succeeds.

C. Model Three: No Automatic Stay, New Value Exception

In Model Three, Manager can buy newly issued stock for its appraised value. It follows that Manager can force Creditor to take \( V_C \). As Baird and Picker suggest, "Manager under the new value exception is also able to force Creditor out of Firm."\(^{88}\) On the other hand, no automatic stay exists. Hence, Manager cannot prevent Creditor from seizing \( V_C \). This situation is diagrammed as follows:

![Figure Three
New Value Exception--No Automatic Stay](image)

In Figure Three, Creditor always gets \( V_C \) while Manager always gets \( V_M - V_C \). For every dollar increase in \( V_C \), Manager loses a dollar until Manager approaches zero and \( V_C \) approaches \( V_M \).

Thus, it ought to be apparent that Manager's purchase of newly issued stock for market value does not explain why Manager can rid Firm of Creditor by foisting \( V_C \) on Creditor. When Firm does issue stock, it may choose to pay off secured claims with the proceeds received, but noth-
ing in the rules requires Firm to do so. In short, Baird and Picker are guilty of non sequitur, and consequently, all their remarks about Model Three (and, later, Model Four) must be rejected as founded on bad logic.

If Manager wishes to cash out Creditor, Manager might do so through cram down. Hence, it is likely that Baird and Picker confounded the new value exception to the absolute priority rule with cram down under section 1129(b)(2)(A) of the Bankruptcy Code.

Baird and Picker’s assumption that Creditor will receive liquidation value under these cram down provisions demonstrates their ignorance of the case law. Although one judge advocates this idea, the vast majority of the courts in reported cases insist that in a chapter 11 bankruptcy proceeding, Creditor should receive going concern value for its collateral.

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81 See Ralph A. Peeples, Staying In: Chapter 11, Close Corporations and the Absolute Priority Rule, 63 AM. BANKR. L.J. 65, 96-98 (1989) (concluding that the new value exception provides no implications for the use of the new value contributed).

82 11 U.S.C. § 1129(b)(2)(A) (1988). At various points, Baird and Picker hint that the new value exception is not really useful in getting rid of Creditor because Manager always can award itself a wage equaling $V_M$. This concession is devastating to Baird and Picker because it means that Manager never needs to bargain to steal surplus going concern value from Creditor. See supra note 33.

83 Judge James Queenan is virtually alone in asserting that a secured creditor might be crammed down on the basis of liquidation value. See In re Robbins, 119 B.R. 1, 4 (Bankr. D. Mass. 1990) (“Use of collateral by a debtor, even by one who has placed his financial house in order, is a neutral factor in establishing a standard of valuation.”); In re T.H.B. Corp., 85 B.R. 192, 196 (Bankr. D. Mass. 1988) (“The fact that the debtor is a going concern is no reason to value the collateral under the going concern standard unless it appears likely that the secured party will actually receive that value from its collateral through a pending sale.”).

84 See, e.g., Am. Universal Ins. Co. v. Dunlap (In re Microwave Prods.), 118 B.R. 566, 574 (Bankr. W.D. Tenn. 1990) (using going concern value in the reorganization); Downey Sav. & Loan Ass’n v. Helionetics, Inc. (In re Helionetics, Inc.), 70 B.R. 433, 439 (Bankr. C.D. Cal. 1987) (determining that going concern value must be used in chapter 11 cases, absent unusual circumstances); In re Frost, 47 B.R. 961, 963-64 (D. Kan. 1985) (concerning going concern value in chapter 13); Bank Hapoalim B.M. v. E.I.I., Ltd. (In re Bank Hapoalim B.M.), 42 B.R. 376, 379 (N.D. Ill. 1984) (determining that liquidation values are for liquidation cases and going concern values are for reorganization cases); Gen. Elec. Credit Corp. v. QPL Components (In re QPL Components), 20 B.R. 342, 345 (Bankr. E.D.N.Y. 1982) (explaining that going concern value is the standard in reorganization cases); LYNN LOPUCKI, STRATEGIES FOR CREDITORS IN BANKRUPTCY PROCEEDINGS 494 (1985) (same); David Gray Carlson, Secured Creditors and the Eely Character of Bankruptcy Valuations, 41 AM. U. L. REV. 63 (1991) (same); Chaim Forgang & Thomas Moers Mayer, Valuations in Bankruptcy, 32 UCLA L. REV. 1061, 1087 (1985) (same); Isaac Pachulski, The Cram Down and Valuation Under Chapter 11 of the Bankruptcy Code, 58 N.C. L. REV. 925, 939 (1980) (“It is incongruous to value a business that is being reorganized on the basis of the price its assets could fetch on a piecemeal liquidation when the entire theory of the reorganization is that the debtor is being preserved as a going concern.”); see also In re Robinson Ranch, Inc., 75 B.R. 606, 608-09 (Bankr. D. Mont. 1987) (stating that chapter 12 requires use of “fair market value,” not liquidation value); In re Phoenix Steel Corp., 39 B.R. 218, 226-27 (D. Del. 1984) (explaining that because the court was unsure whether the debtor-in-possession would liquidate or remain a going concern, it averaged liqui-
The Bankruptcy Code supports this conclusion by providing: "Such value shall be determined in light of the . . . proposed disposition or use of such property . . . ." Indeed, in their article, Baird and Picker go so far as to offer the case of *In re Pullman Construction Industries* as the paradigm upon which they found their model. Yet, buried deep in this lengthy case is the following remark by Judge Schmetterer: "It is grossly inequitable and unfairly discriminatory to 'cram down' forced liquidation values in a case that does not involve a Chapter 11 liquidating plan." Ironically, the very paradigm Baird and Picker choose for their model of Firm refutes the idea of cram down at liquidation value. Their oversight provides a telling example of why legal scholars should read the cases that they cite.

Even if Baird and Picker were to amend Model Three by substituting cram down for the new value exception, they still base Model Three upon a controversial minority view of the law. Baird and Picker, at the very least, should have acknowledged this point.

As Judge Norton stated in a famous case: Having declared itself be a fish to be reorganized, it would be inconsistent for the court now to permit the Debtor to declare itself a fowl to be liquidated for purposes of "cramming down" a lower "appraised" value upon the secured Creditors. Therefore, a liquidation valuation, i.e., foreclosure value, is a procedure totally foreign to this matter and not a proper standard for valuation.

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107 B.R. at 939.

Although few bankruptcy judges would allow a secured creditor to be crammed down at liquidation values, Baird and Picker go further and suggest cram down at only 80% of liquidation value. In other words, Baird and Picker advocate that collateral should receive the lowest possible valuation, and even then, secured creditors should be clipped for another 20% of their collateral:

There are alternative ways in which to create a set of exit options that minimize the extent to which the forces that drive the bargaining process . . . determine the division of Firm between Creditor and Manager when Firm's capital structure must be changed. For example, a rule might allow Manager to buy Creditor out for 80 percent of the liquidation value of the assets. Baird & Picker, *supra* note 2, at 346. Here, Baird and Picker assert that bargaining is bad because it depends on morally contingent factors such as the ability of one side to wait the other out. *Id.* at 343-44. Hence, some sort of nonbargaining call on assets should be given to management, a call that is 20% below the lowest conceivable value of the collateral. This concession amounts to a major wealth
Another flaw in Baird and Picker's reasoning is their insistence that because of the new value exception (i.e., cram down), Manager may buy out Creditor for liquidation value and capture the going concern surplus. Creditor always receives liquidation value but never anything more.\textsuperscript{60} Even if the new value exception, however, \textit{did} introduce a cash-out option (which, in fact, comes from cram down), the new value exception does not allow Manager to capture the going concern value. In Baird and Picker's example, liquidation value is $3 million and Firm is worth $5 million. Since Manager always pays fair market value, Manager has to pay a minimum of $2 million for the common stock. Once paid in, this amount goes to the general creditors unless they waive their rights.\textsuperscript{61} Baird and Picker assume that general creditors do waive their rights. In support of this proposition, they cite the fact that Manager is the cause of the going concern surplus; if general creditors do not consent, Manager walks.\textsuperscript{62} However, because Creditor is one of the general creditors, in fact the dominant general creditor, Creditor must consent to waive cram down rights. Whereas before Creditor might waive the general creditor rights to take a premium on the secured claim, now Manager cashes out Creditor's secured claim at the minimum. Therefore, the conditions for Creditor consent evaporate. Creditor then becomes entitled to the $2 million that Man-

\textsuperscript{60} Baird & Picker, \textit{supra} note 2, at 344.


\textsuperscript{62} Baird and Picker, \textit{supra} note 2, at 315, 339.
ager must pay in, plus the $3 million in liquidation value that Manager must pay Creditor.

At this point, the power to block confirmation of a plan moves to the unsecured creditors, which means it moves to the Creditor in the guise of its unlimited unsecured claim. Yet, if surpluses are always split fifty-fifty, this observation leads to the conclusion that the general creditors get half and Manager gets half. That is, Model Three fails to prove that the new value exception (in other words, cram down) moves the going concern surplus from the secured creditors to the equity claimants, but nothing new or distinct has occurred between Model One and Model Three. Whatever bargaining power Creditor had to extract the rents in Model One still exists in Model Three. Model One and Model Three should have reached identical results. Interestingly, Model One and Model Two would have also reached identical results if Baird and Picker had applied the Supreme Court’s ruling in *Timbers*. Thus, in spite of a great deal of sound and fury, Baird and Picker’s analysis to this point signifies nothing. All models are the same.

Baird and Picker also failed to distinguish Model One and Model Three in that the automatic stay is absent from Model One. Creditor could simply foreclose under state law over Manager’s opposition. Hence, in Model One, Manager has to kick back value to Creditor when \( .5V_M > V_C \). These kickbacks, however, mysteriously disappear if \( V_C > .5V_M \). Model Three does not contain an automatic stay either, although Baird and Picker added the new value exception (cram down). Why can Creditor still not withdraw assets from the bankruptcy court and hold a state law foreclosure sale? If no automatic stay exists, nothing in the new value exception or cram down prevents Creditor from withdrawing assets from the reach of the bankruptcy court.

Cram down, in fact, depends on the automatic stay. If Creditor need not stick around the bankruptcy court because the court did not impose an automatic stay, then Creditor need not be crammed down. As in Model One, Creditor is in a position to insist on \( .5V_M \) as the price of not foreclosing on Firm. Baird and Picker’s assumption that cram down exists in Model Three results from their confusion. In fact, Model One and Model Three are identical. So far, the new value exception is without effect on

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63 The Supreme Court specifically ruled that an undersecured creditor may vote the unsecured deficit in aid of the secured claim, even though secured and unsecured creditors have adverse interests in a chapter 11 proceeding. See Norwest Bank Worthington v. Ahlers, 485 U.S. 197, 200-03 (1988).

64 For a criticism of the disappearance of hold-up power, see appendix.
bankruptcy bargaining.

D. Model Four: Automatic Stay, New Value Exception

According to Baird and Picker, Model Four is the most important of the models because it supposedly replicates the current legal regime. In fact, it is the model that least resembles the current law.

In Model Four, Baird and Picker add the automatic stay back into the equation, along with the new value exception (cram down at liquidation value). As in Model Two, Baird and Picker assume that the automatic stay eliminates Creditor’s security interest. Creditor’s cram down rights are meaningless because Manager can simply refuse to proceed and can keep the bankruptcy going as long as is necessary to persuade Creditor to give in and consent to the plan. In Model Two, this means that Creditor always gets \( \frac{1}{2}V_M \).

Model Four differs from Model Two only in that cram down, after having died in Model Two, like Lazarus, is back. Manager may now cram down Creditor at less than \( \frac{1}{2}V_M \) whenever \( V_C < \frac{1}{2}V_M \). Otherwise, where \( V_C \) is too high, Manager simply gives \( \frac{1}{2}V_M \) to Creditor. In Model Three, this upward limit on Creditor of \( \frac{1}{2}V_M \) was unavailable to Manager because the automatic stay did not exist to prevent Creditor from foreclosing.

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61 Baird & Picker, supra note 2, at 345 (“[I]t represents the bargaining that would exist under current law if the new value exception does continue under the Bankruptcy Code.”) (footnote omitted).

62 See discussion infra notes 70-74 and accompanying text.

63 Baird & Picker, supra note 2, at 345.

64 See text accompanying note 49.

65 For those unfamiliar with biblical lore: Jesus said, “Take ye away the stone.” Martha, the sister of him that was dead, saith unto him, “Lord, by this time he stinketh: for he hath been dead four days.” Jesus saith unto her, Said I Not unto thee, that, if thou wouldest believe, thou shouldest see the glory of God?” Then they took away the stone from the place where the dead was laid . . . And when he thus had spoken, he cried with a loud voice, “Lazarus, come forth.”

And he that was dead came forth, bound hand and foot with graveclothes: and his face was bound about with a napkin.

John 11:39-44.
As demonstrated above, Baird and Picker confounded the new value exception with an eccentric view of cram down. According to Baird and Picker, a bankruptcy court, contrary to the great weight of authority, will force Creditor to take liquidation value. This assumption failed to rehabilitate Model Three because cram down requires the imposition of the automatic stay to keep the assets in front of the bankruptcy court. Now, with the automatic stay in place, cram down is slightly more apropos, but the other objections previously presented still apply. In other words, nothing about cram down proves that \( V_M - V_C \) moves to Manager rather than to the general creditors. Since Creditor is the largest general creditor, and since a cashed-out Creditor has no further reason to consent to give up its general creditor rights, cram down does not explain how Manager can acquire the going concern surplus.

IV. WHICH MODEL MOST ADEQUATELY REPRESENTS REALITY?

Of the four models presented by Baird and Picker, which most adequately represents the current legal regime? Baird and Picker believe that Model Four, which includes the permanent automatic stay and the new
value exception, is the most representative.\textsuperscript{70} In fact, only Model One bears even a faint resemblance to the current legal regime.

In Model One, Creditor could exit, guaranteeing it a minimum of $V_C$. But Creditor might obtain more — .5$V_M$ when .5$V_M > V_C$ — because Manager needs Creditor's consent to confirm a plan. This partly coheres with the case law, which shows that Creditor always receives a share of going concern value from Creditor's collateral in cram down. If Manager withholds all the going concern value, Creditor can obtain relief of the automatic stay. Now, \textit{Timbers} indicates that, for the first few months, courts should be lenient toward Manager in order to give Manager breathing space to devise a confirmable plan.\textsuperscript{71} But such a grace period is surely dependent on Manager's intent to honor Creditor's cram down rights. Manager's refusal to offer cram down rights constitutes per se grounds to have the stay lifted immediately.\textsuperscript{72} Indeed, as Model One is a perfect information model, the bankruptcy judge already knows about this outrage and will already have lifted the automatic stay sua sponte. As Creditor in turn already knows what the bankruptcy judge has done, Creditor can foreclose under state law immediately. Hence, the current legal regime is one in which there is no permanent automatic stay. Or, if Manager renounces cram down in advance under conditions of perfect information, the automatic stay is perfectly nonexistent.

Model Two does not represent reality because it assumes that the automatic stay lasts until Creditor waives its cram down rights. This is tantamount to stipulating that security interests do not exist. Yet, bankruptcy courts, practitioners, and scholars universally believe that to the extent that prepetition creditors get anything out of bankruptcy, they get it from their security interests, which entitle these creditors to cram down rights.\textsuperscript{73}

Model Three also does not represent reality because it represents Manager stealing $V_M - V_C$ by cramming down Creditor at $V_C$. Yet, with no automatic stay, the Bankruptcy Code provides no mechanism to cram down Creditor. The premise of Model Three is that Creditor can withdraw the assets at will from the bankruptcy proceeding. A forced cash-out and theft of the going concern value depends on the automatic stay. Fur-

\textsuperscript{70} Id. See supra note 65 and accompanying text.


thermore, the model confounds the new value exception with cram down. The new value exception is completely irrelevant to this analysis.

Finally, Baird and Picker falsely presume that Model Four closely resembles reality. In this model, Manager can cash out Creditor for a low liquidation value or give Creditor one-half of Firm, whichever is cheaper. Few courts, however, have been willing to award going concern value to Manager by limiting Creditor to liquidation value in cram down. Instead, courts overwhelmingly award going concern value to secured creditors.74

In short, the latter three models do not resemble the existing bankruptcy regime. Hence, Baird and Picker failed to show that the automatic stay destroys cram down or that the new value exception allows cram down at liquidation values.

V. CONCLUSION

The game theory model of Baird and Picker is a rich congregation of absurdities that does not have a healthy influence on chapter 11 policy. Nevertheless, game theory is a progressive advance for the law and economics movement. When law professors declaim the efficiency of law, they imply for themselves a Faustian command of each and every cost and benefit a law engenders.75 The plausibility of such claims is that efficiency proclamations should be ignored.76

Game theory does not make these conceited claims. Instead, game theory modestly speaks about the maximizing strategies of individuals given the strategies of others without any implied normative claim of social good.77 This normative modesty serves as a welcome antidote to the

74 See supra note 54.
76 Ian Ayres concludes that game theory attacks the idea that markets maximize utility, and, therefore, such theory is at war with the laissez-faire policy prescriptions of the Chicago School of Law and Economics. Ian Ayres, Playing Games with the Law, 42 STAN. L. REV. 1291, 1315-17 (1990). In other words, game theory shows that competitors end up at Nash equilibrium, see infra note 81 and accompanying text, with no incentive to reach Pareto optimality. This result, in turn, indicts markets and justifies government intervention into markets to produce social welfare.
77 Unfortunately, Baird and Picker do not comprehend this modesty of game theory. They continue to make the usual artificial welfare claims for their thesis. One of their regrettable comments states:

If [lawyers' fees] can be reduced and the rights of all the relevant parties can still be protected, we should want to do so. We want to ensure that the renegotiations that take place either in Chapter 11 or the shadow of Chapter 11 cost as little as possible.

Baird & Picker, supra note 2, at 316. This statement fails to take account of second-best effects and also fails to relate bankruptcy costs to the marginal cost of production. Without this latter relation,
hypocrisies usually issued in the name of welfare economics.

**APPENDIX**

The purpose of this comment is to show that two fundamental errors, a legal mistake and a logical non sequitur, invalidate Baird and Picker’s finding that cram down does not exist and that the new value exception allows undersecured creditors to be cashed out at low liquidation values. This appendix presents a series of technical criticisms of the Baird and Picker model.

**A. Manager’s Talent**

Baird and Picker assume that Manager’s talent causes $V_M$. This assumption implies market imperfection. In a perfect market, if management skill produces $V_M$, then Firm’s competition can replicate this skill with other resources outside Firm. If so, $V_M = 0$ because going concern value always equals Manager’s opportunity cost. As a result, Manager does not need to bargain with Creditor to extract any amount over $V_C$.

It follows that Manager’s talent alone cannot account for $V_M > 0$. Two possible rehabilitative moves explain $V_M > 0$. First, strategic positioning of assets or goodwill with customers could induce positive $V_M$. If so, then Creditor and Manager jointly control $V_M$ and together must threaten the other general creditors into waiving the absolute priority rule.

Second, positive $V_M$ may exist because the market suffers from informational dysfunction. That is, the market for Manager’s labor does not know of Manager’s ability to garner a supercompetitive profit. Either one of these adjustments accounts for a positive $V_M$ for Creditor and Manager to split. Each also explains why one party has a veto over the other’s paying lawyers in lieu of creditors is simply a distributional concern. One cannot assume lightly that marginal changes in the cost of bankruptcy will affect the price of credit.

Similarly regrettable is the statement: “If there are social costs associated with default — and there almost surely are — giving a smaller share of Firm to Creditor in the event of a reorganization may cause welfare losses.” Id. at 317. This statement fails to specify whether bankruptcy distributions affect the price of credit and, therefore, the marginal cost of production, and it ignores the important welfare benefits that might accrue if interest rates rise — the reduction of costs that limited liability firms export to the public. See David Gray Carlson, *Postpetition Interest Under the Bankruptcy Code*, 43 U. Miami L. Rev. 577, 617 (1989). In short, Baird and Picker follow the old line that the only good transaction cost is a dead transaction cost, and low interest rates are always better than higher interest rates — propositions that no economist could agree with.


79 Id. at 347 (“[W]e have assumed that everyone has equal knowledge of such things as the going-concern value of the firm.”).
B. Equal Patience and the Split of $V_M$

Baird and Picker assume that unless the opportunity to exit exceeds \( .5V_M \), Creditor and Manager will always agree to a fifty-fifty split of \( V_M \).\(^{80}\) The parties will split \( V_M \) evenly because of their "equal patience" to play the bargaining game.\(^{82}\) More precisely, Baird and Picker assume that Manager and Creditor have equal rates of return with regard to foregone opportunities.\(^{83}\)

Given their desire to keep game theory rudimentary, Baird and Picker's assumption that Creditor and Manager will split a surplus evenly is reasonable. Economists traditionally presuppose such divisions in bilateral monopoly situations where a consumer surplus is to be split amongst

\[ \frac{1 - \delta_C}{1 - \delta_C \delta_M} \]

See Ariel Rubinstein, *Perfect Equilibrium in a Bargaining Model*, 50 Econometrica 50 (1982) [hereinafter Rubinstein]. In the above formulation, \( \delta \) is a discount factor, which is related to a discount rate as follows:

\[ \delta = \frac{1}{1 + r} \]

where \( r \) is the interest rate a player could earn by investing today. Rasmussen, * supra* note 1, at 89. If one year passes and the parties have an equal 10% discount rate, the Manager in Rubinstein's formula receives \( 1/(1 + \delta) \) of \( V_M \), or 52.38095%. This is not an equal split of \( V_M \).

On the other hand, as \( r \) approaches zero, \( \delta \) approaches 1. In Rubinstein's formula, \( \delta_C \) approaches 1 at twice the rate of \( \delta_C \delta_M \) where \( \delta_C = \delta_M \). Hence, in the limiting case, where \( \delta \approx 1 \) (i.e., \( r \approx 0 \)), \( 1/(1 + \delta) \) approaches .5. For example, if \( r = .00001 \), Manager's share is 50.00025%.

Hence, equal discount rates plus infinitely small amounts of time between offers are necessary for Manager's share merely to approach 50% of \( V_M \). See John Sutton, *Non-Cooperative Bargain Theory: An Introduction*, 53 Rev. Econ. Stud. 709, 711 (1986); Rubinstein, * supra*, at 108.

\(^{80}\) In a market with perfect information, Manager could recapture \( V_M \) simply by letting Creditor foreclose and by bidding \( V_C + n \), assuring the recapture of Firm. Since everyone knows about \( V_M \), it should be easy to get financing at \( V_C + rV_C < V_M \) (where \( r \) is the available interest rate). Hence, Manager never needs to share \( V_M \) with Creditor. Indeed, Baird and Picker write, "we have assumed that everyone has equal knowledge of such things as the going-concern value of the firm." * Id.* Obviously, Manager's ability to create \( V_M \) is not universally known.

\(^{81}\) * Id.* at 341.

\(^{82}\) * Id.* at 339.

\(^{83}\) * Id.* Actually, in an alternative bargaining game, equal discount rates produce a split of \( V_M \) that merely approaches fifty-fifty, and even then only when the time between Player I's first offer to Player II and Player II's counteroffer is infinitely small. Otherwise, equal discount rates do not produce an equal division of \( V_M \). The formula that Ariel Rubinstein derives to describe the division of \( V_M \), where Manager makes the first offer, is:
those who control it.\textsuperscript{84} Describing this equal split solely as a function of equal rates of return on any investment, no matter how large or small the investment, however, proves quite problematic.

To illustrate the problem, let us examine a different model of how $V_M$ might be split between two parties ($C$ and $M$). In this model, each party either agrees to split $V_M$ now or waits until the other “sweetens the offer.” Whether these bilateral monopolists will settle now or later is a function of three variables: what each party could receive now ($x$), what each party expects to earn later ($y$), and each party’s rate of return necessary to reduce future expectations to present value ($z$).

Variable $x$, what each party could receive now, might originate from one of two sources. First, $x$ might originate from a legal rule that sets a minimum that each party must receive. For example, if Creditor can foreclose on Firm and receive liquidation value ($V_C$), then $x_C = V_C$. Alternatively, variable $x$ might originate from a previous offer made by the other party. In Baird and Picker’s model, when a permanent automatic stay prohibits $V_C$, $x_C = 0.5V_M$. The Manager always offers $0.5V_M$.

Whether the parties divide $V_M$ now or wait for a better offer later involves a discount of the future expectation (the $y$ variable) to present value. Each side can easily compare the present values and decide whether now is better than later.

For example, suppose $C$ and $M$ must split $1$ million. No legal rule defines their entitlements to the $1$ million. $C$ and $M$ must work it out for themselves. Each has a rate of return of 10% on any investment. They are “equally patient” in Baird and Picker’s assumption.

In the initial negotiation, $C$ offers $M$ $400,000$ ($x$), and $M$ offers $C$ $400,000$ ($x$). Each party proposes to keep the balance not offered to the other. The $x$ offers are givens; no economic theory explains their derivation. The $y$ values are also noneconomic givens. Suppose, for example, that $C$ believes that if $C$ waits one year, $M$ will offer $550,000$. Given that the present value of $550,000$ is more than $C$ could earn by taking $M$'s present offer of $400,000$ and investing it for one year, $C$ will wait. Likewise, suppose $M$ thinks that in one year $C$ will give up entirely and offer

\textsuperscript{84} See George Stigler, \textit{The Theory of Price} 216 (4th ed. 1987) (describing the split as “determined by factors outside the traditional theory: skill in negotiation; public opinion; coin flipping; a wise marriage”); John F. Nash, Jr., \textit{The Bargaining Problem}, 18 \textit{Econometrica} 155 (1950) (“In general terms, we idealize the bargaining problem by assuming that the two individuals are highly rational, that each can accurately compare his desires for various things, that they are equal in bargaining skill, and that each has full knowledge of the tastes and preferences of the other.”) [hereinafter Nash I].
$600,000. Since M can earn more by waiting than by investing today's offer, M will also wait. Indeed, the waiting would continue indefinitely until either the expectations or rates of return changed. Only if C or M expects the cost of waiting to exceed the benefits of waiting will the parties strike a bargain. These three variables, today's offer (x), tomorrow's expectation (y), and the applicable rate of return (z), represent the knowledge necessary to model bargaining over a surplus.

Baird and Picker, however, view bargaining as a function of only one variable, the rate of return. They claim that when Creditor's rate of return ($\delta_C$) and Manager's rate of return ($\delta_M$) are equal, they must divide $V_M$ equally. However, as previously shown, equal rates of return are neither necessary nor sufficient for an equal split of $0.5V_M$. The parties could reach an equal split even if $\delta_C /= \delta_M$, provided that they manipulate their initial offers or later expectations. On the contrary, the parties could reach an unequal split if their discount rates are identical, provided their expectations diverge.

Baird and Picker are able to obtain support for their assumption of equal patience from Ariel Rubinstein's alternating offers game. According to this game, Creditor and Manager have an indeterminate share of a surplus, which they must agree to divide. They also have perfect information about each other, including what each other is thinking.

According to this model, suppose Creditor and Manager disagree on how much each side should receive. Nevertheless, they agree that if a deal is made, Manager's share could be described as the indeterminate variable x, while Creditor's share will be $(1 - x)$. Each side also knows that each has an equal discount rate r, and hence an equal discount factor $\delta$, which is:

$$\frac{1}{1 + r}$$

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86 Game theorists call this a Nash equilibrium. BRIAN SKYRMS, THE DYNAMICS OF RATIONAL DELIBERATION 13 (1990) ("A simultaneous choice of acts by all players is called a Nash equilibrium if no player can improve his or her payoff by a unilateral defection to a different act."); RASMUSEN, supra note 1, at 33.

87 In Baird and Picker's model, $\delta$ stands for a rate of return. Baird & Picker, supra note 2, at 334. In game theory, $\delta$ often stands for $1/(1 + r)$, where r is the rate of return. See RASMUSEN, supra note 1, at 89. Baird and Picker give one example, however, where the "discount rate" appears to be a "discount factor" instead. Baird & Picker, supra note 2, at 343.

88 See Rubinstein, supra note 75.
Suppose that Manager offers Credit \((1 - x)\) and proposes to keep \(x\), and Creditor accepts this offer. It is possible for Creditor to anticipate this action by offering Manager the discounted value of \(x\) one round earlier. Hence, Creditor can bring the deal forward in time by offering \(\delta x\) one round earlier and keeping the balance of \((1 - \delta x)\). Manager, however, can also bring the deal forward one round earlier. Since Creditor can obtain \((1 - \delta x)\), and Creditor is indifferent between that amount and \(\delta(1 - \delta x)\) one round earlier, Manager can get an earlier deal by offering Creditor \(\delta(1 - \delta x)\) and retaining the balance of \(1 - \delta(1 - \delta x)\). This hypothetical establishes the beginning of an endless chain of indifference. It is enough, however, to observe that Manager is indifferent between \(x\) in the last round and \(1 - \delta(1 - \delta x)\) two rounds earlier. Hence:

\[
\begin{align*}
x &= 1 - \delta(1 - \delta x) \\
x + \delta(1 - \delta x) &= 1 \\
x + \delta - \delta^2 x &= 1 \\
x(1 - \delta^2) + \delta &= 1 \\
x(1 - \delta^2) &= 1 - \delta \\
x &= \frac{1 - \delta}{1 - \delta^2} \\
\frac{x}{1 - \delta^2} &= \frac{1 - \delta (1 + \delta)}{(1 - \delta^2)(1 + \delta)} \\
\frac{x}{1 - \delta^2} &= \frac{1 - \delta^2}{(1 - \delta^2)(1 + \delta)} \\
\frac{x}{1 + \delta} &= \frac{1}{1 + \delta}
\end{align*}
\]

Since \(\delta = 1/(1+r)\):

\[
x = \frac{1 + r}{2 + r}
\]

This last expression clearly illustrates that, as \(r \to 0\), \(\delta \to 1\) and \(x \to 0.5\). That is, under conditions of perfect knowledge, and when alternating offers are infinitely close together (so that \(r \to 0\), Manager's
share approaches half, and Creditor’s share approaches half. What this example implies, surprisingly, is that, under the conditions specified, any preconceived notion of an entitlement to a surplus is irrational. Equality of discount rates turns back upon preconceived entitlements and destroys them by showing them to be irrational.

Therefore, in a very rarified way, Baird and Picker can say that an equal split of a surplus is a function of equal patience, defined as equal interest rates. But they also could have simply stipulated that all surpluses are to be split fifty-fifty.

C. No Equal Patience When $V_C > .5V_M$

In Model One, Manager and Creditor split $V_M$ fifty-fifty, but this division evaporates when $V_C > .5V_M$. For example, suppose $V_M = $1 million and $V_C = $200,000. Here, Creditor takes $.5V_M$. Now suppose $V_C$ is $600,000. In this case, Creditor takes $V_C$. Yet a joint surplus remains of $V_M - V_C = $400,000. According to Baird and Picker, however, Creditor cannot extract any part of $V_M - V_C$.

This result is particularly surprising because Baird and Picker explicitly recognize early in their article that Creditor must capture these benefits:

A view of bankruptcy law that advocates tracking nonbankruptcy rules seems incomplete if it equates Creditor’s “nonbankruptcy entitlements” with the liquidation value of the assets and does not take into account the benefits Creditor can capture by reaching a bargain with Manager. The liquidation value of the assets and the value of Manager’s alternative wage merely set the stage for the negotiation between the parties. To the extent that one adopts the view that bankruptcy should mimic the outcomes that would exist if no bankruptcy law existed, one would have to worry about the negotiations that would take place if bankruptcy were not in the picture, not simply about the amount that Creditor would realize if it exercised its right to seize the collateral or that Manager would earn if she worked elsewhere.

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88 See generally Rasmusen, supra note 1, at 234-35.
89 There is something deeply spiritual about this model. It seems to imply that the concept of property or of difference disappears when people have precisely the same preference for present versus future consumption—surely a valuable speculative insight.
90 Baird & Picker, supra note 2, at 338 (“A central feature of this model is that the exit options do not themselves affect the size of the bargained-for share.”).
91 Id. at 319-20 (footnotes omitted).
If Baird and Picker followed their own advice, they would have to give Creditor $V_C + .5(V_M - V_C)$ anytime $V_C > .5V_M$ and no automatic stay existed to restrain foreclosure.

Baird and Picker even cite the great Nash as advocating this approach:

[W]e should note that the strategic approach we adopt in our article is substantially different from another well-known in bargaining: the axiomatic approach. As originated by John Nash, the axiomatic approach identifies certain minimal conditions that a solution should satisfy and then characterizes the outcomes that satisfy the conditions . . . Nash was able to find . . . that the parties each get what they would get if no agreement were reached, plus half of the extra value available . . . .

In other words, Nash would have Creditor receive $V_C + .5(V_M - V_C)$ when $V_C > .5V_M$ and no automatic stay exists.

Baird and Picker reject the "axiomatic approach" of Nash:

[T]he disagreement point — the payoffs to the parties in the event no agreement is reached — is simply taken as a given. Moreover, under the axiomatic approach, no account is taken of the ability of one party to call off bargaining unilaterally and exercise an exit option. Hence, the axiomatic approach offers no easy way to understand bankruptcy rules, such as the automatic stay, whose principal effect is to deny one party the ability to leave the bargaining.

Baird and Picker's objections to Nash's approach are not persuasive. First, the disagreement points of Nash may be "givens," but what are the exit options in the Baird and Picker model except givens? Second, nothing in the axiomatic approach of Nash prevents modelling for the exercise of an

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92 Id. at 332 (footnote omitted).
93 Baird and Picker fail in their attempt to cite an article by John F. Nash, Jr. as support for the proposition quoted in the text. The article by Nash, however, simply demonstrates how to graph a unique solution to a bargaining output, with the utilities of each of the players mapped on the abscissa and ordinate. The article does suggest that when the two players are of equal bargaining power and utilities, the solution to bargaining lies on a line that is a 45° angle from the origin. See Nash I, supra note 84, at 160. See also John F. Nash, Jr., Two-Person Cooperative Games, 21 Econometrica 128 (1953) [hereinafter Nash II]. This latter article contrasts two approaches toward finding unique solutions to bargaining games. It deals with "threats" if the parties fail to reach a bargain, but it does not mention the situation in which both parties have a preexisting claim to part of the surplus to be divided. Id. Therefore, the latter article also provides scant support for the statement by Baird and Picker quoted in the text.
94 Baird & Picker, supra note 2, at 332.
exit option. Nash himself simply characterizes the “axiomatic approach” as an alternative way to reach the same result as a noncooperative bargaining analysis.

Another justification for limiting Creditor to $V_C$ when $V_C > 0.5V_M$ is that, after this point, lengthy bargaining is relatively unattractive for Creditor, and it can do no better than demand the value of its exit option, the liquidation value of the collateral. Such a case arises when, for example, the liquidation value of the assets is $3$ million, the Manager’s alternative wage is $1$ million, and Firm is worth $5$ million as a going concern with Manager in place. In this case, Creditor receives $3$ million, and Manager captures all the going-concern surplus. Manager has less to lose by bargaining than Creditor. The exit option does not strengthen Creditor’s hand in bargaining beyond the floor it sets on what Creditor must receive. When liquidation value exceeds the

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**For example,** Nash writes:
The threat concept is really basic in the basic theory developed here . . . . If one considers the process of making a threat, one sees that its elements are as follows: A threatens B by convincing B that if B does not act in compliance with A’s demands, then A will follow a certain policy $T$.

Nash II, supra note 93, at 130. Nash supplies no reason why he does not include the option of quitting the bargaining table and exercising a right against $V_M$ within the definition of $T$. One trio of analysts think that Nash was vague in defining the disagreement point and suggest that it is no more than the status quo, absent an agreement. Ken Binmore et al., The Nash Bargaining Solution in Economic Modelling, 17 RAND. J. ECON. 176, 176-78 (1986).

Baird and Picker assure us that “[i]t is important to note that what we have defined as exit options are not the same as disagreement points in the Nash demand game.” Baird & Picker, supra note 2, at 332 n.48. For this proposition they cite MARTIN J. OSBORNE & ARIEL RUBINSTEIN, BARGAINING & MARKETS 88 (1982), which neglects to elucidate this distinction. To the contrary, it would appear that the exit options are nothing other than status quo absent agreement.

**Nash describes two different approaches to solving a cooperative bargaining game, in which the parties are allowed to confer with each other in reaching the optimal solution: the “negotiation” approach and the “axiomatic” approach:**

In the first, the cooperative game is reduced to a non-cooperative game. To do this, one makes the players’ steps of negotiation in the cooperative game become moves in the non-cooperative model. Of course, one cannot represent all possible bargaining devices as moves in the non-cooperative game. The negotiation process must be formalized and restricted, but in such a way that each participant is still able to utilize all the essential strengths of his position.

The second approach is by the axiomatic method. One states as axioms several properties that it would seem natural for the solution to have and then one discovers that the axioms actually determine the solution uniquely. The two approaches to the problem . . . . are complementary; each helps to justify and clarify the other.

Nash II, supra note 93, at 129.
value of its bargained-for share, Creditor cannot receive more than the liq-
uidation value.\textsuperscript{97}

In this instance, Creditor is equally patient with Manager, or as Baird and Picker define it, $\delta_C = \delta_M$, but the opportunity costs for waiting differ ($3 million versus $1 million). It does not necessarily follow, however, that Creditor has no bargaining power by which to get something beyond $V_C$ because Creditor retains a powerful threat, liquidation of the company, as there is no automatic stay at this point to prevent such action. Under state law, Manager can redeem Firm only by paying the full amount of Creditor’s claim or by offering some compromise with Creditor whereby Creditor obtains $V_C$ plus a portion of $V_M - V_C$. Because Creditor can deprive Manager of economic rents ($V_M - V_C$), Manager might pay Creditor to commence liquidation, pending a better offer than the meager $V_C$ that Manager previously offered.\textsuperscript{98}

Indeed, Baird and Picker imply that when Creditor’s exit option is “weak,”\textsuperscript{99} Creditor gets more than $V_C$. But when Creditor possesses a “strong” exit option, Creditor receives no bonus. Hence, in weakness there is strength, according to Baird and Picker.

Another justification for the evaporation of Creditor’s bargaining power when $V_C > 0.5V_M$ is the requirement of “subgame perfectness.”\textsuperscript{100} Game theory sometimes employs this assumption to reduce the multiple Nash equilibrium a game would otherwise imply.\textsuperscript{101} One effect of sub-
game perfection is that Creditor cannot threaten a move that will hurt both Creditor and Manager in the hope that Manager will increase the offer later to avoid a loss.\textsuperscript{102} Relying on this assumption, Manager knows that Creditor will never foreclose if Manager offers Creditor $V_C$. When a

\textsuperscript{97} Baird & Picker, \textit{supra} note 2, at 341.
\textsuperscript{98} Late in their article, Baird & Picker give an example that undermines the assumption that Creditor only gets $V_C$ when $V_C > 0.5V_M$. In this example, the players have identical capital stakes but different discount factors. This causes a different split of $V_M$. Baird & Picker, \textit{supra} note 2, at 343. If a comparatively impatient player obtains part of $V_M$ when $\delta_C = \delta_M$, then it should also guarantee Creditor part of $V_M$ when $\delta_C > \delta_M$. However, Creditor is more impatient because $V_C > 0.5V_M$. In both cases, unequal impatience should have the same result as that of a split that is something other than fifty-fifty.
\textsuperscript{99} “We call an exit option ‘weak’ if it gives a party less than that party’s bargained-for share.” Baird & Picker, \textit{supra} note 2, at 338.
\textsuperscript{100} Id. at 330.
\textsuperscript{101} See RASMUSEN, \textit{supra} note 1, at 85. Rasmussen defines the concept as follows: “A strategy combination is a subgame perfect Nash equilibrium if (a) it is a Nash equilibrium for the entire game; and (b) its relevant action rules are a Nash equilibrium for every subgame.” \textit{Id}.
\textsuperscript{102} Baird & Picker, \textit{supra} note 2, at 330.
creditor is undersecured and the debtor is insolvent, payment now must always exceed payment later. Any threat in this regard can be ignored because Creditor must only compare the optimal move in the subgame at hand, where Creditor decides whether it prefers $V_C$ now or $V_C$ later.

Subgame perfectness is, of course, just an assumption. This assumption appears, however, to be ill-suited for the Baird and Picker model. For one thing, subgame perfectness is a strategy one can adopt if one’s game produces too many unattractive Nash equilibrium. Yet in the Baird and Picker model, where Creditor and Manager face each other with strongly dominant strategies, there is only one Nash equilibrium and hence no reason for subgame perfectness. Second, subgame perfectness allows for easy manipulation by Manager’s simply asserting that Creditor makes the first move. Suppose Creditor says: “Unless you give me $V_C + x$, I will repossess the assets.” If $V_M - V_C > x$, Manager must accept Creditor’s offer. In short, subgame perfectness simply assures that whoever makes the first move has the advantage over the opponent. The Baird and Picker adoption of subgame perfectness is not so much a justification of Creditor’s loss of bargaining power as an ipse dixit.

Even if subgame perfectness explains why Creditor does not hold out for anything above $V_C$, it also implies that Creditor gets $V_C$ all the time, even when $V_C < 0.5V_M$, because Manager’s optimal strategy is always to offer $V_C$ and no more. However, Baird and Picker fail to explain why Manager need ever offer more than $V_C$. Indeed, subgame perfectness only serves to emphasize how artificial it is to assume that Creditor has power to extract rents when $V_C < 0.5V_M$, but not when $V_C > 0.5V_M$.

In truth, there seems to be no good reason why Creditor should lose all ability to extract $V_M - V_C$ if $V_C > 0.5V_M$, except perhaps that Model One, as Baird and Picker have drawn it, is the mirror image of Model Four. If Model One were drawn to guarantee Creditor $V_C + 0.5[V_M - V_C]$, Baird and Picker would have sacrificed symmetry. Elegance, therefore, demands this peculiar assumption. Yet is there a poorer reason to infuse assumptions into a model than the production of elegance?

D. Manager’s Opportunity Cost

The above discussion suggests that each side needs a here-and-now against which to compare the benefits of waiting. This here-and-now

103 RASMUSEN, supra note 1, at 100 n.42.
104 That is, Manager always offers and never exits. Creditor always accepts and never rejects.
106 RASMUSEN, supra note 1, at 87-88.
might come from a minimum share that the law requires, for example, Creditor's $V_C$, where Creditor has a right to foreclose on Firm, or from an offer to split $V_M$.

Manager's opportunity cost is the extra wages that it could earn in another market. In Baird and Picker's model, Manager is already earning a wage from Firm. $V_M$ is the surplus after Manager receives this wage. Yet, quite unnecessarily, Manager pays itself a below-market wage. As a result, Manager must always extract $W_M$ from $V_M$. $W_M$ is the difference between Manager's actual and potential wage. Baird and Picker should simplify their model if Manager receives precisely the market wage before $V_M$ is split. In this model, $W_M = 0$. Manager then has no minimum with regard to the split and no incentive to walk away from Firm.

Indeed, if $W_M > 0$, Manager effectively contributes $W_M$ to increase the size of $V_M$. Since, in three of the four models, Creditor gets $0.5V_M$ at least part of the time, this contribution is purely altruistic on the part of Manager. Hence, $W_M > 0$ attributes economic irrationality to Manager, a feature game theory cannot abide.

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106 Baird & Picker, supra note 2, at 320 n.23.
107 Id.
108 Id. at 323-24.
109 $W_M = 0$ would also have saved Baird and Picker from an analytical error when they alleged that Manager's submarket wage from Firm pressured Manager to make a quick deal with Creditor. Id. at 320 ("By contrast . . . Manager loses the benefit of a higher wage") (footnote omitted). In fact, Manager is in charge of Manager's own salary and can easily avoid this pernicious pressure by awarding itself a raise.

Can Manager also simply pay itself $V_M$ and deem this payment wages? Baird and Picker imply so, in which case bargaining with Creditor over $V_M$ is always unnecessary — an embarrassment that negates most of their modelling. See supra note 33.

110 Baird and Picker explain Manager's subcompetitive wage differently from pure altruism. They write:

Manager is still paid a cash wage from Firm after the filing of the bankruptcy petition, but this wage is not as large as what she could make elsewhere. The cash wage is low because of her (now nearly worthless) equity stake and the psychic benefits from running her own shop.

Baird & Picker, supra note 2, at 320 n.23. Neither of these reasons is convincing. First, the equity stake is not worthless. Rather, it is worth $0.5V_M$ or perhaps $V_M - V_C$, depending on the circumstances. Unless $V_C \geq V_M$, Manager's equity stake is quite valuable. Furthermore, psychic benefits cannot explain the low wage because Manager has no constraint in naming its own salary. Because Manager is its own boss, Manager enjoys both the psychic benefits and the competitive wage, if so desired.

Establishing $W_M$ is, in fact, part of the game itself, since it is a voluntary move by Manager. If Baird and Picker were to acknowledge this fact, then $W_M > 0$ also makes the subgame imperfect, in violation of Baird and Picker's assumptions. Baird & Picker, supra note 2, at 330. That is, the first subgame is: "Manager increases $V_M$ by taking fewer wages, thereby enriching Creditor," or "Manager decreases $V_M$ by taking more wages, thereby enriching Manager." Subgame perfectness surely requires the latter move, and yet Baird and Picker have Manager making the former move.
Baird and Picker define the equal patience of Creditor and Manager as a function only of rate of return.\textsuperscript{111} Hence, Baird and Picker advocate that Manager, with no real opportunity cost, is equally as patient as Creditor who, in some of the models, feels entitled to the liquidation value of the assets.

Yet, if Manager and Creditor are equally patient, and if they have equal rates of return, then they must have equal capital stakes, for example, opportunities foregone, as well. That is, the parties are equally patient only when the cost of waiting is equal, but equal costs means equal lost income — a function of both interest rates and opportunity costs.\textsuperscript{112}

Given that Creditor’s opportunity cost is precisely what Creditor expects to extract from $V_M$, then equal patience ($o_C = o_M$) demands that Manager have an equal opportunity cost. In other words, $V_C = W_M$. Yet $W_M = 0$, unless Manager is altruistic. Therefore, whenever Manager is self-interested, liquidation value falls to zero. When Manager altruistically takes a pay cut to enrich Creditor, liquidation value of the assets rises. This proposition is ridiculous. The distress market for liquidated assets does not rise and fall as Manager veers between impulses of selfishness and generosity. This market is strictly indifferent to the psychological characteristics of the ex-Manager.

These hidden assumptions also commit Baird and Picker to the view

\textsuperscript{111} Id. at 339.

\textsuperscript{112} In one instance, Baird and Picker present a model in which the parties have equal capital stakes. Baird & Picker, supra note 2, at 343 (“Assume Firm is worth $5 million. Manager has an alternative wage of $1 million, and Creditor can liquidate the assets for $1 million.”). But in another part of their article, Baird and Picker present a model where the capital stakes are maximally diverse:

We should note that our model makes what might seem a counter-intuitive prediction.

Let the going concern value of Firm be $5 million, and consider the limiting case of a net alternative wage of $1 and a liquidation value of $2,499,999. If Creditor and Manager have the same discount rate, they will split Firm evenly in the full exit model. To understand this prediction, one must recognize that in this case Creditor’s threat to leave the bargaining is no more credible than Manager’s. Both exit options are weak and hence do not affect the outcome of the bargaining.

Id. at 341. This prediction is based on non sequitur. The split is supposed to be based on equal patience, yet no waiting occurs in this last example. The parties either exit or split $V_M$ fifty-fifty. If the parties neither exit nor agree to a fifty-fifty split, they do not have identical costs of waiting for a better bargain later. Creditor has an opportunity cost of $2,499,999. If interest rates are 10%, Creditor loses $249,999 per year through delay. Manager, however, loses only one thin dime. It may be true that each side does not have a credible exit threat, in other words, that each side gets more from an instantaneous fifty-fifty split, but the two sides do not have equal patience.

Baird and Picker do not see that patience is a function of interest rates and capital at stake. In the above example, interest rates are the same, but opportunity costs radically diverge. Hence, the parties are not equally patient to reach a bargain. See Baird & Picker, supra note 2, at 343 (showing that parties with equal capital stakes and different interest rates are not equally patient).
that Firm cannot reorganize unless going concern value is more than twice the amount of liquidation value. As Baird and Picker recognize, where \( V_M < W_M + V_C \), the parties are better off liquidating the firm.\(^{118}\) Therefore, whenever \( V_C > 0.5V_M \), reorganization is impossible, even though the parties sacrifice economic rents by their inability to reorganize.

If Baird and Picker follow this assumption through, the parties would always either liquidate Firm or divide it in half. \( V_M - V_C \) would \textit{never} constitute Manager's share of Firm, unless \( 0.5V_M = V_C \), by some perverse coincidence. Yet in Baird and Picker's Model One, \( V_M - V_C \) is precisely Manager's share when \( V_C > 0.5V_M \).\(^{114}\)

\(^{118}\) Id. at 339.

\(^{114}\) Id. at 340, 344. To further complicate matters, Baird and Picker reverse field and imply that Manager can always take \( V_M \) as a wage. Yet, \( V_M \) is the surplus after the payment of the wage. According to this view, \( W_M = 0 \) because \( V_M = 0 \), in contrast to many other assertions in Baird and Picker's article.

According to Baird and Picker:
Manager can [buy all the stock for new cash.] This limitation may prevent Manager from enjoying the entire going-concern surplus because, given the contribution she must make, she can enjoy the surplus only in the form of a wage that is higher than her alternative wage elsewhere. There may be constraints (such as the wage ordinarily paid a manager of such a firm) that limit how much money may be extracted from Firm in this form. Apart from these constraints, however, the new value exception enables Manager to force Creditor to take a share of Firm equal to the liquidation value of Firm's assets.

\textit{Id.} at 325; \textit{see also id.} at 345 n.65 ("The need to inject cash restricts the ability of Manager to capture the going-concern surplus because the surplus can be extracted only through the differential between the wage she receives at Firm and the wage she could earn elsewhere."). The mysterious passage quoted above seems to indicate that Manager cannot enjoy \( V_M \) because Manager will pay itself \( V_M \) as a wage, in which case \( V_M = 0 \). Baird and Picker illustrate the meaning of this statement as follows:

[Suppose] Creditor has a security interest in all the assets of Firm [worth $100]. . . . Assume that a reasonably capitalized firm would have a debt-equity ratio of 3-1. Under the new value exception . . . Manager would retain all the equity of Firm in return for contributing $25 in new cash to Firm. Creditor would receive a note secured by all the assets of Firm worth $75. It would also receive as a cash distribution the $25 that Manager gave to Firm in return for the equity interest . . . .

Actual cases are more complicated. The assets might be worth . . . $200 if Manager stayed in place and worked for her alternative wage. If we continue to assume that a debt-equity ratio of 3-1 is required, it might seem that Manager would need to put up $50 in new cash, so that Creditor could receive $50 in cash and a note worth $150. [But] Creditor can insist only on receiving $100, the liquidation value of the collateral. Moreover, we can put a value on Firm only after Manager's wage is taken into account and nothing requires that Manager works for only her alternative wage. Assume, for example, that Manager can be paid $100 more than she would make elsewhere. Manager may be able to have the court confirm a plan in which she retains the equity in return for a cash contribution of $25. Creditor may be forced to settle for a note worth $75 and $25 in cash. The total package is worth $100, the liquidation value of the assets. The equity is worth only $25, the amount Manager contributes in cash, because Firm is worth only $100 after the wages
E. Accumulating Income

Another problem with the "equal patience" assumption is that Baird and Picker assume that $V_M$ stays fixed over time.\textsuperscript{115} But $V_M$ represents going concern value. Going concern value is only the present value of Firm's expected future income, so undistributed income must be accumulating in Firm. As a result, the value of Firm is growing. This income may belong to Creditor directly if it represents proceeds of Creditor's collateral.\textsuperscript{116} As such, the income is part of $V_C$. If it is not part of $V_C$, the income belongs to the bankrupt estate. Because Creditor is the largest unsecured creditor by virtue of her infinitely large deficit claim, even unencumbered income belongs to Creditor, not to Manager. As a result, and contrary to what Baird and Picker maintain,\textsuperscript{117} Creditor benefits from delay and gains bargaining leverage. The absolute priority rule excludes Manager from this income.

Baird and Picker think the opposite is true. They opine that the pressure is on Creditor to reach an early bargain with Manager because "Creditor enjoys no return on the assets . . . for the length of the negotiations."\textsuperscript{118} In fact, cash accumulates and $V_M$ grows, providing Creditor (and not Manager) with a return for delay. It appears that Baird and Picker forgot that Creditor has an unsecured deficit claim Creditor can use to its advantage in the bargaining process.

If Creditor's claim is infinitely large, Creditor is not only the dominant secured creditor but also the dominant unsecured creditor. As such, Creditor will benefit from delay and Manager will not.\textsuperscript{119} Although Baird

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\textsuperscript{115} Id. at 327-28. What Baird and Picker seem to be saying is that the Manager must extract $V_M$ in the guise of wages. Otherwise, the unsecured deficit of Creditor takes priority over $V_M$ and over Manager, who is only a shareholder. But this assertion merely states that $V_M$ exists by virtue of Manager's choice. If Manager can always expropriate $V_M$ by awarding itself wages worth $V_M$, then why does Manager ever give $.5V_M$ to Creditor?

The above analysis by Baird and Picker vitiates nearly every part of their article because Manager never needs to bargain with Creditor to confiscate $V_M$. The only issue is whether Creditor has the right to $V_C$ or not, in order to block this expropriation.

\textsuperscript{116} Id. at 334.

\textsuperscript{117} "The central premise of the bargaining model . . . is that each party prefers agreement sooner rather than later and that this moves the parties toward agreement." Baird & Picker, supra note 2, at 334-35 (footnote omitted).

\textsuperscript{118} Id. at 320.

\textsuperscript{119} Manager continues to receive a salary during delay, but Baird and Picker assume that this salary is below market value, so that receipt of the salary is, in fact, realization of a loss. Id. at 320 n.23.
and Picker wish, for simplicity purposes, to make Creditor and Manager equally patient in holding out for any bargain, equal patience is logically possible only if unencumbered cash does not accumulate in Firm pending the bargain between Creditor and Manager. Yet cash flow is precisely the basis upon which $V_M$ is founded. If no expectation of income exists, then $V_M = 0$ and there is no surplus to split.

F. Is It a Game?

According to Eric Rasmusen, "[g]ame theory is concerned with the actions of individuals who are conscious that their actions affect each other. . . . Game theory is not useful when decisions are made that ignore the reactions of others or treat them as impersonal market forces."\(^{120}\) It is not entirely clear whether Baird and Picker presented a true game theory in their article. If they did, the game is so obvious that they should have dispensed with game theory altogether. If they had, they simply could have asserted that cram down does not exist and that the new value exception allows for a cash-out at liquidation values. Such propositions would merit unalloyed scorn if left unmystified by game theory.

Baird and Picker describe their model as one in which Manager either (1) exits and takes $W_M$, or (2) extends an offer to share $V_M$ with Creditor.\(^{121}\) $W_M$ constitutes wages voluntarily foregone, thereby increasing $V_M$. As previously shown, a rational Manager would never voluntarily take a pay cut to swell the size of $V_M$ because Manager generally splits $V_M$ with Creditor. A rational Manager therefore makes sure that $W_M \geq 0$.

If $W_M = 0$, then Manager never chooses between exit and offer because exit promises no gain. Instead, Manager always offers Creditor a share of $V_M$ and stipulates the amount of the offer in advance. For example, in Model One, Manager offers $0.5V_M$ when $V_C < 0.5V_M$ and offers $V_C$ when $V_C \geq 0.5V_M$. In Model Two, Manager always offers $0.5V_M$, and so on.

According to Baird and Picker, Creditor has three moves in response to the inevitable offer by Manager. Creditor can (1) accept the offer, (2) counteroffer, or (3) if legally permitted, exit by repossessing Firm's assets.\(^{122}\) Because Manager's offer always covers the exit option, when it exists, Creditor is always indifferent between accepting and exiting.

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120 RASMUSEN, supra note 1, at 21.
121 Baird & Picker, supra note 2, at 330.
122 Id. at 333.
Therefore, it is possible to eliminate the option of exiting from the discussion altogether.

This elimination limits Creditor's strategy set to acceptance or rejection-counteroffer. Rejection never occurs in the model. Instead, Creditor always accepts. Why? According to Baird and Picker:

In a world of complete information, the parties reach an agreement in the first period. Manager . . . makes a proposal just attractive enough so that Creditor is better off taking the proposal than making a counteroffer that, while giving it a larger share, takes longer to put in place and hence is worth less to it.118

Baird and Picker do not expressly articulate why Creditor cannot make a successful counteroffer that compensates Creditor for lost time. The most plausible reason that Creditor does not counteroffer is that Creditor, who has complete knowledge, knows that Manager will not accept the counteroffer and will repeatedly return with its original offer. Given Creditor's knowledge of the futility of a counteroffer, Creditor chooses to accept now because, once discounted to present value, the future offer is worth less than today's offer.

If these notions are the key to making the "game" work, Creditor's only real option is to accept whatever offer Manager makes. This offer must equal \( V_C \) when Creditor has the right to foreclose. When no such right exists, or when Manager offers more than \( V_C \), Manager's offer always determines Creditor's share of \( V_M \). No theory explains the origin of Manager's offer, yet Creditor must accept it. The Baird and Picker model, if in fact it is a game theory, presents us with a very simple game indeed — one suitable for age two to kindergarten.124 It is one in which each party has a dominant strategy against the other. Accordingly, only one very obvious Nash equilibrium exists.125

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118 Id. at 335.
114 Baird and Picker acknowledge, to some extent, that their "game" is nothing but a "dead dog." They write: "Perhaps the most striking — and in some ways the most disappointing — feature of the perfect information model is that immediate agreement is reached if any agreement is reached at all. The essential stationariness of the model generates this result." Id. They also suggest that this problem equates their model with a pre-packaged chapter 11 plan, as if that trendy device is not the subject of spirited bargaining. Id.
124 Since there is only one Nash equilibrium, Baird and Picker should have dispensed with the requirement of subgame perfection. This assumption is useful to narrow down the solution to games where there are multiple Nash equilibria. See supra text accompanying notes 100-102.