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Bankruptcy Contracting Revised: A Reply to Alan Schwartz's New Model

Lynn M. LoPucki
University of Florida Levin College of Law, lopucki@law.ufl.edu

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In *Bankruptcy Contracting Reviewed*,[1] Alan Schwartz purports to restate and defend the bankruptcy contracting model he presented in *A Contract Theory Approach to Business Bankruptcy*.[2] What he in fact does is abandon key assumptions of the original model and substitute new ones. The resulting new model is driven by reputational constraints neither present nor possible in the original model. Yet it works no better than the original.

The linchpin of Schwartz's response is his insistence that his original model contained an unstated assumption prohibiting debtor firms from lying. In the context of Schwartz's model, the effect of the new assumption is to bar the debtor from strategic behavior at the contracting stage—an implausibility in the context of bankruptcy. To fit this new assumption to his original model, Schwartz had to make new supporting assumptions that he ultimately could not reconcile with the original model.

In addition, as Schwartz has filled in more of the details of his model, other problems of inconsistency and incompleteness have come into sharper focus. As will be apparent, Schwartz has not yet demonstrated the feasibility of bankruptcy contracting in the real world or in his revised model.

I. CREDITORS LENDING AT DIFFERENT TIMES

Schwartz's original model assumed that only the debtor firm had the information necessary to determine the optimal bankruptcy contract.[3] Schwartz devoted stage one of that model to showing that when all

† Security Pacific Bank Professor of Law, UCLA Law School. I thank Hulya Eraslan, Frances Foster, Dan Keating, Ken Klee, Alan Schwartz, and Elizabeth Warren for comments on earlier drafts. Responsibility for the accuracy of the final result is solely my own.

1. Alan Schwartz, *Bankruptcy Contracting Reviewed*, 109 YALE L.J. 343 (1999).

2. Alan Schwartz, *A Contract Theory Approach to Business Bankruptcy*, 107 YALE L.J. 1807 (1998).

3. *See id.* at 1828 n.59.

creditors contracted with the debtor firm at the same time, the debtor firm would propose that optimal contract. Schwartz set forth clearly the reason it would do so: "The firm will offer creditors the contract that maximizes the creditors' expected insolvency return because this will maximize the amount the firm can borrow."[4] That is, the debtor firm offered the optimal contract in response to direct economic incentives, not in order to comply with an implicit assumption prohibiting lying.

At the second stage of his original model, Schwartz relaxed his assumptions to acknowledge that creditors contract with their debtor firms at different times and that the terms of the optimal bankruptcy contract would change over time.[5] His solution at the second stage was a "conversion term" in the debtor firm's contract with each creditor that would change the bankruptcy terms of the creditor's contract to the bankruptcy terms of any contract the debtor firm entered into with a later creditor.[6]

In my reply to Schwartz, I pointed out that his solution at the second stage destroyed the incentives that had caused the debtor firm to propose the optimal contract in the first stage. An opportunistic debtor firm could understate the amount of the necessary bribe to get a favorable loan from the initial creditor, knowing that it could correct the understatement in its contract with the second creditor. This strategy of understatement would enable the debtor firm to get below-market terms on the initial loan without receiving a lower bribe in the event of bankruptcy. Because the initial creditor would anticipate the strategy and have no way to prevent it, no loan transaction could occur.

Schwartz does not dispute the devastating effect of the understatement strategy on his model. Instead, he claims that the strategy "is ruled out by [an] assumption"[7] that parties cannot "commit fraud" or "lie to each other at the contracting stage."[8] Schwartz does not claim to have expressed this assumption in his original essay. Instead, he asserts that it was implied because "[c]ontract-theory models assume that parties will not engage in fraud."[9]

Schwartz cites no authority for that proposition. Nor is it generally true. To the contrary, the introduction to a recently published contract theory text cautions that "[a] *homo economicus* who possesses private information should be expected to try to manipulate it, since he has in effect a monopoly

4. *Id.* at 1827.
5. *See id.* at 1833-34.
6. *Id.* at 1834.
7. Schwartz, *supra* note 1, at 349.
8. *Id.* at 350.
9. *Id.* at 349. Schwartz cites two articles in support of such a practice, but both expressly assume that the parties must be truthful. He cites nothing to support an implicit assumption of no fraud.

over his own piece of private information. . . . The theory of contracts originates in these failures of general equilibrium theory."[10]

Schwartz cites two articles in which the authors expressly assumed that the contracting parties would be truthful,[11] but it is equally easy to cite articles in which the authors expressly assumed the contracting parties in their models could lie.[12] More to the point, the authors Schwartz cites do not make the no-lying assumption merely because it is a convention of contract theory; they make it because it is plausible given the other assumptions of their model.[13] By contrast, Schwartz's original model assumes that the private information (the private benefits) is "unverifiable," making an assumption of truthful disclosure implausible.[14]

Contrary to the claim he now makes, Schwartz's original essay assumed that debtor firms could lie. To find that assumption in the original essay, it is first necessary to understand the role that the no-lying assumption plays in Schwartz's new model. The lie Schwartz would prohibit is the debtor firm's "contractual promise to choose the optimal bankruptcy system."[15] Debtor firms did not, however, promise to choose the optimal bankruptcy system in Schwartz's original model; they merely "offer[ed] creditors a . . . contract that will *induce* the firm to choose the optimal bankruptcy system in the event of insolvency."[16] Schwartz implies

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10. BERNARD SALANIÉ, THE ECONOMICS OF CONTRACTS: A PRIMER 2 (1997).

11. *See* Schwartz, *supra* note 1, at 349 n.10.

12. *See, e.g.*, Mathias Dewatripont, *Renegotiation and Information Revelation over Time: The Case of Optimal Labor Contracts*, 1989 Q.J. ECON. 589, 594-95 ("When [the output price for the firm] is not observed by workers, the optimal contract . . . may not be feasible because the firm may have an incentive to lie about [the output price]."); Roger B. Myerson, *Incentive Compatibility and the Bargaining Problem*, 47 ECONOMETRICA 61, 61 (1979) ("Of course, he may ask his clients to tell him what he needs to know; but if he cannot compel truthful behavior then he must anticipate that some group members may lie to him in an attempt to manipulate his ultimate decision.").

13. *See, e.g.*, Sanford J. Grossman, *The Informational Role of Warranties and Private Disclosure About Product Quality*, 24 J.L. & ECON. 461, 465 (1981). For example, Grossman explains, in a passage not cited by Schwartz: "We consider only truthful disclosures for two reasons. First, we are interested in analyzing the benefits of a positive disclosure law which are above and beyond those provided by a law against lying. Second, if there are zero *ex post* verification costs, sellers would warranty their disclosures." *Id.*

14. Schwartz, *supra* note 2, at 1824.

15. Schwartz, *supra* note 1, at 349. In the context of the understatement strategy, the debtor firm fulfills the promise Schwartz implies: It chooses optimally between reorganization and liquidation. *See* Lynn M. LoPucki, *Contract Bankruptcy: A Reply to Alan Schwartz*, 109 YALE L.J. 317, 325 (1999) ("Having borrowed on overly favorable terms that would not change, the firm could then consolidate its gains by entering into a contract with the second creditor that fixed the bribe at the optimal percentage." (footnote omitted)). For purposes of argument, however, I assume that the debtor firm breaches the promise, as Schwartz asserts.

16. Schwartz, *supra* note 2, at 1827 (emphasis added). Schwartz might reply that the creditors would compel the debtor firm to reveal and warrant its hidden information, but if so, it is incumbent on him to explain how that would occur. *See infra* text accompanying note 69. One cannot simply assume that because the efficient result is in the interests of both parties, they can overcome information imbalances to reach it. *See, e.g.*, Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 127 (1989)

both the promise[17] and its fraudulent nature from the mere fact that the debtor firm contracts for a suboptimal bribe while it has the information necessary to fix an optimal bribe.[18] Because Schwartz implicitly assumes that every debtor firm has that information,[19] it follows that any debtor firm that proposes a suboptimal bankruptcy contract is "lying." The prohibition on lying is a prohibition on proposing suboptimal terms.

Schwartz's original model contemplated that debtors could propose suboptimal terms. After explaining the operation of his conversion term in his original essay, Schwartz notes that "[a] possible objection to these results is that, as regards the renegotiation-proof contract, the firm would strategically not lower the optimal bribe s^* in a contract with the later creditor, though circumstances made a lower bribe efficient."[20] Although that passage alone references a strategy of not contracting with the second creditor at all, Schwartz later expands it to the creditor who does contract with the second creditor:

> The firm would also probably not behave strategically because the behavior can be unprofitable. The gain to the firm from strategic behavior is a higher bankruptcy payoff. The loss stems from *the firm's having to offer an inefficient contract* to the second creditor, thus not maximizing this creditor's insolvency payoff.[21]

Though the debtor firm in this passage knew it was offering a suboptimal bribe[22]—and would have no opportunity to correct it later—Schwartz did not protest the strategy as fraudulent. Consistent with the principles of his original model,[23] he claimed that the conduct would be controlled by his model's pattern of incentives, finally concluding that "the expected costs to the firm of *offering later creditors inefficient contracts* apparently would often outweigh the gains."[24]

Schwartz's claim that he intended the no-lying assumption is also undermined by its omission from his extensive, detailed listing of

("[W]hen one party to a contract knows more than another, the knowledgeable party may strategically decide not to contract around even an inefficient default. Because . . . contracting around a default can reveal information, the knowledgeable party may purposefully withhold information to get a larger piece of the smaller contractual pie.").

17. This assumption may or may not be justified. *See supra* note 16.

18. *See* Schwartz, *supra* note 2, at 1827-28.

19. *See id.*

20. *Id.* at 1834-35.

21. *Id.* at 1836 (emphasis added).

22. *See id.* at 1828 n.59 ("To clarify further what is going on, the firm can predict the private benefits that it later may realize in bankruptcy and its expected monetary return. As a consequence, the firm can calculate the optimal bribe s^* to include in the contract.").

23. *See supra* text accompanying note 4.

24. Schwartz, *supra* note 2, at 1836 (emphasis added).

assumptions in the original essay[25] and his simultaneous inclusion of an express assumption against collusion.[26] Collusion is a form of fraud.[27] The exclusion of collusion from the model implies that other forms of fraud are permitted.

The fact that Schwartz did not make the no-lying assumption in his original model should not prevent him from making it in his new model. But in doing so, he removes the elegant mechanism by which his original model operated—incentives based on the monetary returns in his formulae—and substitutes a new, inelegant mechanism—voluntary full disclosure by the debtor in order to maintain the creditors' good will.

The original model, by contrast, contained no assumptions making it necessary for the debtor to maintain the good will of its creditors. To introduce them, Schwartz first correctly notes that the understatement strategy requires that the debtor firm first propose a suboptimal contract to the initial creditor and then propose an optimal contract to the last creditor.[28] Schwartz then argues that when the debtor firm proposed the optimal contract (at t'): (1) it would have to justify that change to the initial creditor;[29] (2) the attempted justification would cause a loss of good will with the initial creditor;[30] (3) that loss would disadvantage the debtor firm in a later workout or bankruptcy;[31] and (4) that disadvantage would be sufficient to deter the debtor firm from using the strategy.

These assumptions are, in effect, the assumptions of a revised model. They are both inconsistent with the original model and implausible. As to the first assumption of the argument, the debtor firm would not have to justify the change in contracts to the initial creditor because the initial creditor would not know the change had occurred until after bankruptcy. Recall that Schwartz's original model set forth no mechanism by which a change in the bribe negotiated with the second creditor would be communicated to the first.[32] The design of such a mechanism in a proposed real-world system of contract bankruptcy is not trivial. A large debtor firm might have to notify tens or even hundreds of thousands of creditors. Rasmussen proposed giving such notice through the debtor firms' corporate

25. Most of the assumptions are found in *id.* at 1822-26.
26. *See id.* at 1826.
27. Black's Law Dictionary defines "collusion" as follows:
> An agreement between two or more persons to defraud a person of his rights by the forms of law, or to obtain an object forbidden by law. It implies the existence of fraud of some kind, the employment of fraudulent means, or of lawful means for the accomplishment of an unlawful purpose. A secret combination, conspiracy, or concert of action between two or more persons for fraudulent or deceitful purpose.

BLACK'S LAW DICTIONARY 240 (5th ed. 1979).
28. *See* Schwartz, *supra* note 1, at 348.
29. *See id.* at 350-51.
30. *See id.* at 351-52.
31. *See id.* at 351.
32. *See* LoPucki, *supra* note 15, at 325.

charters. In his original essay, Schwartz criticized Rasmussen's solution on the ground that "corporate charters are inconvenient to amend"[33] and proposed in its place a system that required no notice. Schwartz now assumes that the initial creditor knows immediately of the change in contracts, but does not tell us how.

To defend his second new assumption—that the debtor firm's inability to justify its bribe change to the initial creditor would result in a loss of good will—Schwartz begins by correctly observing the ambiguity of the change: The debtor firm may be correcting for a deliberate understatement the debtor firm made in contracting with the first creditor, or it may be correcting for an intervening change in circumstances.[34] To resolve that ambiguity in a way that loss of good will might follow, Schwartz again alters the assumptions of his original model. His initial model, he concedes, "assumed for convenience that the initial creditor . . . might not be able to observe private benefits at all . . . ."[35] His new model instead assumes that "[the initial] creditor likely can observe some elements of these benefits, such as the salaries that the debtor's managers get."[36] In attempting to get the initial creditor from there to the conclusion that the debtor firm is correcting for a deliberate understatement, Schwartz draws two questionable inferences. First, he infers that the initial creditor would know the denominator of the bribe formula, $[y_{L,L} - y_{L,R}]$, forcing the debtor firm to explain the change as resulting from a change in the numerator, $[b_{l,R} - b_{L,L}]$.[37] But under the assumptions of Schwartz's original model, the initial creditor observes the expected monetary returns from bankruptcy [y] only after the debtor is in bankruptcy—too late for it to affect the debtor's reputation.[38] Schwartz's citations do not support his contrary assertion.[39] Before bankruptcy, the initial creditor would know none of the four values

33. Schwartz, *supra* note 2, at 1811.

34. *See* Schwartz, *supra* note 1, at 351.

35. *Id.* at 351 n.16.

36. *Id.*

37. *See id.* at 351 n.15.

38. Specifically, Schwartz assumed that "[c]reditors can prove in court how much money the firm earned while in the bankruptcy system it chose (bankruptcy returns are 'verifiable'), and the parties can observe the circumstances that exist ex post." Schwartz, *supra* note 2, at 1823. The passage continues, "Thus parties know after insolvency which of the two bankruptcy systems would maximize monetary returns." *Id.*

39. Schwartz claims in his response that his original model "assumed that creditors could observe the expected monetary returns from the two systems" at the time of contracting. Schwartz, *supra* note 1, at 351. But in support of that claim he cites only formulas in his original essay for calculating the expected return available to creditors and formulas for calculating the "participation constraints" of creditors in an earlier article he wrote. *See id.* at 351 n.15. Neither source evidences an assumption that creditors could observe the expected bankruptcy returns at the time of contracting as opposed to the actual returns at the time of bankruptcy. To the contrary, in the earlier article Schwartz noted that "[p]roject returns are verifiable, and the parties can observe the realized state of the world, θ. Hence by [the time the firm chooses a bankruptcy procedure] the parties know which procedure will maximize monetary profits." Alan Schwartz, *Contracting About Bankruptcy*, 13 J.L. ECON. & ORG. 127, 131 (1997).

used in calculating the bribe percentage, and therefore have no basis for equating the change with a confession of lying. Second, Schwartz infers that observing management's salaries before or during bankruptcy would provide significant information regarding the appropriateness of the bribe amount fixed in the contract with the initial creditor.[40] But the understatement strategy does not require the debtor firm to set or change salaries differently. The sole target of that strategy was a super-optimal bribe for choosing liquidation. If liquidation followed, the bribe would be almost entirely in the form of a cash payment upon the debtor firm's filing for liquidation;[41] if the bribe even included salaries, they could be normal salaries. If reorganization followed, the firm would obtain private benefits that included salaries, but the observable salary component would be the same amount the debtor firm would have paid the managers in the absence of the strategy. Nor could the initial creditor learn anything of value by comparing the salaries observed with the bribe specified in the initial bankruptcy contract. The initial creditor has no way to know how much of the private benefits were expected to derive from salaries.[42] It follows that the initial creditor cannot detect the strategy by observing salary patterns. Thus, even with Schwartz's change of assumptions, the initial creditor would be unable to distinguish strategic changes in the bribe from circumstance-driven changes.

Schwartz's third assumption, that the debtor firm needs the initial creditor's good will in the event of a later workout or bankruptcy,[43] also conflicts with assumptions of the original model. That model contemplated no workouts, and the bankruptcy return was a function solely of the choice

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40. *See* Schwartz, *supra* note 1, at 351 n.16.

41. "The creditors then would pay the firm a sum to forgo the [Reorganization] system's greater private benefits and instead enter liquidation." *Id.* at 346. The creditors make these cash payments in return for the debtor firm's choosing Chapter 7 liquidation over reorganization, never the reverse. *See* Schwartz, *supra* note 2, at 1825 (assuming that "the firm will always choose system *R* unless it is constrained by ex ante contract or by ex post renegotiation"). Promptly after the filing of a Chapter 7 case, the United States trustee is required to appoint a disinterested trustee to replace the debtor. *See* 11 U.S.C. §§ 303(g), 701(a)(1) (1994). Hence there is little opportunity for the debtor firm to obtain private benefits in addition to the cash payment.

42. To illustrate, let z represent the amount of the salaries paid and observed in reorganization, and let x represent the "pleasure or status derived from running the firm, the excess consumption of leisure while employed and the opportunity to continue to be paid a salary." Schwartz, *supra* note 2, at 1824. The private benefits would be $b = z + x$ and the optimal bribe percentage

$$s^* = \frac{(z_{LR} + x_{LR}) - (z_{LL} + x_{LL})}{(y_{LL} + y_{LR})}.$$

The observed salaries, however, would be z_{RR}, an amount not even directly relevant in the fixing of the optimal bribe. Even assuming that the observed z_{RR} was indicative of z_{LR}, that would still leave the initial creditor with grossly insufficient information to assess the appropriateness of the bribe fixed in the initial bankruptcy contract.

43. The debtor firm would not lose good will if its prospects were good, because the debtor firm would have no need to change the bribe.

between reorganization and liquidation.[44] This third assumption is also implausible. In Schwartz's model, distributions in reorganization cases are made strictly in accordance with Schwartz's version of absolute priority, and the debtor firm is not even a participant in liquidation cases.[45] The debtor firm would have no need for the creditor's good will.

Schwartz's fourth assumption—that the consequences of a loss of good will would be sufficient to deter strategic behavior of the type I propose—is similarly implausible. Although the debtor firm had to execute the understatement strategy at the time it borrowed from the initial creditor, the debtor firm could commence an almost equally effective version of the strategy after it is in financial distress. To do so, the debtor firm would fix the bribe excessively in its contract with the last lender. (I will refer to this as the "overstatement strategy.") Schwartz placed no constraint on the time of this last borrowing except that it had to occur prior to bankruptcy.[46] Nor did he require the extension of any minimum amount of credit. Presumably, the debtor firm and the last lender could fix the bribe for all creditors in the making of a $100 loan.[47] Because a debtor firm using the overstatement strategy proposes a higher bribe in the contract with the second creditor, the debtor firm will receive the second loan on less favorable terms. But the second creditor will adjust its credit terms for only its own pro rata share of the higher bribe the creditors will pay at bankruptcy. The initial creditor, who already lent on terms more favorable to the debtor firm, has no means of recouping its pro rata share of the higher bribe.

Once one understands that the debtor firm can defeat Schwartz's conversion term by raising the bribe in contemplation of bankruptcy, it should also be apparent that debtor firms will not often be deterred by reputational considerations. Scholars generally regard financial failure as an end game in which reputational constraints of the type Schwartz now seeks to rely upon are of little effect.[48] Because reputational concerns would not

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44. If the amounts of the monetary return or the private benefits were a function of the initial creditor's good will, the debtor firm could not know them when it entered into the bankruptcy contract. But if it did not, the debtor firm could not "calculate the optimal bribe s' to include in the contract," Schwartz, *supra* note 2, at 1828 n.59, which is a function of them.

45. *See supra* note 41 and accompanying text.

46. If Schwartz were to attempt to add a prohibition on changes made shortly before bankruptcy, debtor firms could be expected to anticipate the prohibition and make changes in the bribe before it took effect. Furthermore, during the prohibition period the amount of the optimal bribe might change, rendering the bankruptcy contract inefficient.

47. If Schwartz were to attempt to add an exception for small debts, he would be excluding a class of creditors from the bankruptcy contract and find himself on a slippery slope. Debtor firms would respond strategically by borrowing amounts just in excess of the limit. Another alternative would be to borrow a substantial amount from a creditor who would lend on the eve of bankruptcy because the debtor firm provided it with collateral. For bankruptcy contracting purposes, Schwartz does not distinguish secured from unsecured creditors because he believes their interests do not conflict in that regard. *See* Schwartz, *supra* note 1, at 352.

48. *See, e.g.*, Robert E. Scott, *A Relational Theory of Secured Financing*, 86 COLUM. L. REV. 901, 924 (1986) ("Once business failure looms, market and reputational constraints recede as

be sufficient to deter debtor firms from opportunistically proposing suboptimal bankruptcy contracts, Schwartz's new assumption that they cannot propose suboptimal contracts is implausible and his new model fails.

II. JUNIOR/SENIOR CONFLICT

In his original essay, Schwartz put forth the striking proposition that in a bankruptcy regime that respected absolute priority, the interests of senior and junior creditors would not conflict ex ante with respect to the choice between reorganization and liquidation.[49] As a result, both would prefer the same bankruptcy contract,[50] and it would not matter which of them had the power to fix it.

In *Bankruptcy Contracting Reviewed*, Schwartz specifies for the first time how he reached that conclusion. In Schwartz's illustration, he assumes that the average expected return from reorganization and the average expected return from liquidation each appear to the contracting parties in the form of single dollar amounts. This assumption is unrealistic because contracting may take place years before bankruptcy when those amounts necessarily would be uncertain. If we assume, more realistically, that the average expected returns appear to the parties not as single amounts, but as ranges of possible amounts, Schwartz's own illustration shows the possibility of junior/senior conflict. That is, it will be in the interests of the junior creditors to contract for suboptimal reorganization whenever the average expected liquidation return exceeds the average expected reorganization return (so that liquidation appears optimal), both expectations are less than the seniors' claims (so that the juniors would expect to recover nothing in either procedure), but the top of the range of possible expected reorganization returns exceeds the expected liquidation return (so that the juniors have some chance of recovery in reorganization).[51]

The generalization can be illustrated as follows.[52] At the time of bankruptcy contracting [t^0], the firm borrows $100 from senior creditors and $200 from junior creditors. At that time [t^0], the parties believe that, if the debtor firm is faced with a choice between reorganization and

important factors restraining debtor misbehavior."); George G. Triantis, *A Theory of the Regulation of Debtor-in-Possession Financing*, 46 VAND. L. REV. 901, 912 (1993) (stating that when a firm is in financial distress, "the discipline imposed by contractual constraints and market reputational norms becomes weaker as management and shareholders perceive their situation to be increasingly an end game").

49. *See* Schwartz, *supra* note 2, at 1837-38.

50. *See id.*

51. These are not the only conditions in which the juniors would favor a suboptimal bankruptcy contract, but the conflict generated in these conditions is the easiest to understand.

52. This illustration is based on the one Schwartz provides. *See* Schwartz, *supra* note 1, at 353. I have made minor adjustments to it.

liquidation at t', there will be a 100% chance that the average expected monetary return from liquidation will be $100, a 90% chance that the average expected monetary returns from reorganization will be $90, and a 10% chance that the average expected monetary returns from reorganization will be $110. The possible value of $110 will result from the existence at the time of bankruptcy [t'] of a 50% chance that the outcome in reorganization will be $220 and a 50% chance that it will be zero.[53] In these circumstances, a contract that favors liquidation would be optimal because the parties expect that at bankruptcy [t'] the average expected value of the liquidation option ($100) will be higher than the average expected value of the reorganization option ($92).[54]

Realizing, however, that they would recover nothing under the optimal bankruptcy contract, the junior creditors would favor a contract that offered a lower than optimal bribe. In a suboptimal reorganization, the unsecured creditors would have a 10% chance of having a 50% chance of receiving a distribution of $20 (.1 × .5 × $20 = $1). Because the junior creditors have claims of $200 and the seniors claims of only $100, the juniors can outvote the seniors and impose the suboptimal contract.[55] The suboptimality of the junior creditors' choice might or might not be apparent to the court at bankruptcy, but in a world where bankruptcy contracting was permitted, that would not matter. The entire point of bankruptcy contracting is to substitute the contract choice of procedure for the court's choice of procedure. Considering only the reorganization option, the court would respect absolute priority by giving the senior creditors debt in the face amount of $200 with a 50% probability of payment ($200 × .5 = $100). The junior creditors would receive stock with a value of $10 (a 50% probability of $20 = $10). Because at the time of contracting [t^0] there is only a 10% chance that the reorganization option will eventually have these values, the possibility is worth only $1 to the unsecured creditors. But that is enough to cause the junior creditors to prefer a bankruptcy contract that provides for a suboptimal bribe.

III. TRADE/FINANCIAL CONFLICT

Schwartz's original model assumes that financial creditors share the debtor firm's preference for an optimal bankruptcy choice, but that trade

53. The uncertainty whether the average expected return from bankruptcy will be $90 or $110 exists only at contracting. The parties expect that it will be resolved by the time of bankruptcy such that it will be either $90 or $110. The uncertainty whether, if the expectancy is $110, the reorganization will actually yield $220 or zero will remain at the time of bankruptcy, but be resolved after bankruptcy.

54. (.9 × $90) + (.1 × $110) = $92.

55. *See* Schwartz, *supra* note 1, at 359 n.25.

creditors might not because they "could earn more in new transactions with the firm during the pendency of a wasteful reorganization."[56] He realized that if the bankruptcy contract required the agreement of all creditors, that agreement might not be forthcoming. As his solution, he proposed to bind the minority "to the bankruptcy bargain that the ex ante majority prefer[s]."[57]

A. *Inconsistency Between Conversion and Majority Rule*

My reply argued that permitting the majority of creditors to choose the terms of the bankruptcy contract was inconsistent with permitting the debtor firm to fix the terms in its contract with the last creditor.[58] Schwartz responds cryptically:

> It is unclear why he thinks an inconsistency would exist. Suppose, for example, that a majority (in amount) of creditors sign the firm's renegotiation-proof contract. If the law were to provide that the preferences of a majority would control as regards bankruptcy, the contractual terms in the firm's contracts with these creditors would become required terms in the firm's contracts with the remaining creditors. Hence, the firm's credit contracts would be consistent.[59]

Schwartz's statement is correct as far as it goes. But he apparently fails to realize the implications of majority rule for his scheme of contract updating. From the moment that the preferences of a majority fix the bankruptcy contract's terms for all creditors, the debtor firm's contracts with individual creditors can no longer update the bankruptcy contract. Because the optimal bankruptcy contract varies over time,[60] Schwartz's model needs a new updating mechanism. Recontracting periodically with the majority might be prohibitively expensive,[61] but Schwartz offers no alternative mechanism.

B. *Inefficiency in Majority Rule*

Schwartz seems to acknowledge that if trade creditors who "could earn more in . . . a wasteful reorganization"[62] were in the majority, the majority might prefer bankruptcy contracts that would result in a wasteful reorganization. He nevertheless concludes that "majority rule contracts

56. Schwartz, *supra* note 2, at 1838.
57. *Id.*
58. *See* LoPucki, *supra* note 15, at 330.
59. Schwartz, *supra* note 1, at 360 n.28.
60. *See* Schwartz, *supra* note 2, at 1833.
61. *See supra* text accompanying notes 32-33.
62. Schwartz, *supra* note 2, at 1838.

would be efficient either automatically or because of the firm's actions."[63] He explains that when the trade creditors were in the minority, "[t]he firm would contract out of this inefficiency . . . by refusing to offer any creditor a renegotiation-proof contract."[64] When the trade creditors were in the majority, "the firm could obtain sufficiently good terms from the financial creditors by offering the optimal bankruptcy contract to permit the firm to induce the trade creditors to sign also."[65] Thus, the majority's preference never determines the choice between reorganization and liquidation; the parties always contract out of the majority's preference to the optimal choice. Why, then, provide for majority rule in the first place? Schwartz does not say.[66]

The *deus ex machina* in this happy drama is Schwartz's assumptions that (1) the debtor firm knows what bankruptcy contract is optimal and (2) the debtor firm must offer that contract. The only task then remaining is to determine the appropriate amounts of the bribes necessary to cause the creditors to accept the contract. Schwartz assumes with regard to the trade/financial conflict, as he did with regard to the junior/senior conflict,[67] that the debtor firm can fix the bribes optimally even though the creditors with conflicts do not have a direct contract with one another.[68]

The mere fact that it is in the interests of the parties to reach agreement does not, however, mean that they can or will reach agreement. Were consistent interests sufficient to imply a contract, contract theory would be unnecessary. To illustrate, it was in the aggregate interests of the parties in Schwartz's original model that the debtor firm make the optimal choice between reorganization and liquidation. Schwartz did not simply conclude that the debtor firm would therefore impose the optimal contract and arrange the appropriate bribes. He wrote his essay because he realized that it was necessary to describe the incentive mechanisms by which the parties would overcome information- and transaction-cost problems to reach the Coasean bargain. As one commentator has put it:

> The basic insight of mechanism theory is that *incentive constraints* should be considered equally with *resource constraints* in the formulation of the economic problem. In situations where

63. Schwartz, *supra* note 1, at 361.

64. *Id.*

65. *Id.*

66. Majority rule might confer leverage on the majority that would enable it to extract bribes, thus effecting a transfer of wealth to it. But the transfer of wealth would be smaller and the transaction costs less if the last contract were to govern instead. Under the latter rule, the debtor firm would have to bribe only one creditor to accept the optimal contract. Alternatively, Schwartz may expect that majority rule will reduce transaction costs.

67. *See* Schwartz, *supra* note 1, at 359.

68. *See id.* at 361. Schwartz carefully avoids proposing direct contracts between creditors in both circumstances, probably because he realizes that the transaction costs would be massive.

> individuals' private information and actions are difficult to monitor, the need to give people the incentive to share information and exert efforts may impose constraints on economic systems just as much as the limited availability of raw materials.[69]

In Schwartz's new model, the debtor firm must propose not only the bribe it will receive in the event of bankruptcy; it also must propose the bribes that the majority trade creditors will receive for entering into the bankruptcy contract. The problem is that the debtor firm does not have the information it needs to fix the latter bribes. Each trade creditor presumably could "earn more in a wasteful reorganization," but how much more would depend on the individual creditor's circumstances. To complete his model, Schwartz needs to specify the contract mechanism by which the debtor firm would acquire that information.

If Schwartz were to devise such a mechanism for his model, he would still need an additional step to translate his solution to the real world. The trade creditor/financial creditor conflict present in his model is representative of a much wider variety of creditor conflicts existing in the real world. Trade creditors are not alone in having extrinsic interests that would prevent them from supporting the optimal contract; virtually every other kind of creditor has them as well. Bondholders, who typically are contractually bound to a fixed rate of interest for ten years or more, might favor an ill-advised liquidation so they could recover the face amount of their bonds and reinvest them at current rates. A bank lender might favor an ill-advised reorganization for the same reason that trade creditors would: Reorganization would preserve a profitable relationship in which the bank had already made a firm-specific investment. So might employee-creditors. Financial creditors might want to stay in or get out because they had too much or too little liquidity to satisfy themselves or their regulators. Even within a category of creditors, individual interests would be diverse: One creditor might be too liquid while another might be insufficiently so. A sound solution cannot count on any creditor's interest to be identical to the interests of the group as a whole and hence cannot count on any creditor support for the optimal bankruptcy contract. To complete his model, Schwartz needs a contract mechanism that would enable the debtor firm to fix, years before bankruptcy, and to adjust periodically, the appropriate amounts of transfer payments to and from each individual creditor to cause the creditors to favor the optimal bankruptcy contract.

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69. Roger B. Myerson, *Mechanism Design*, *in* THE NEW PALGRAVE: ALLOCATION INFORMATION AND MARKETS 191, 191 (John Eatwell et al. eds., 1989).

IV. CONCLUSION

In his original essay, Alan Schwartz claimed to have proven bankruptcy contracts feasible even though there are multiple creditors who lend at different times and have potentially conflicting interests. In my reply to that essay, I showed that the understatement strategy could defeat the conversion term Schwartz used to update the bankruptcy contract when creditors lend at different times. In *Bankruptcy Contracting Reviewed*, Schwartz introduced a new assumption that debtor firms cannot lie. In context, that meant that they could propose only optimal contracts. That new assumption would block the debtor firm from using the understatement strategy, and thereby, he hoped, rehabilitate his model.

Schwartz attempted to justify this new assumption with the argument that reputational concerns would deter debtor firms from proposing suboptimal contracts. But as he spun out the "justifications" for the new assumption, he was, in effect, adding them to his model as assumptions. Treating them as such, it becomes apparent that the new assumptions conflict with assumptions and mechanisms of his original model. The resulting new model is internally inconsistent and, as a result, fails to provide incentives that would cause the debtor firm to propose the optimal contract.

Nor does Schwartz's new model provide creditors with incentives to accept the optimal contract. To deal with the conflict between senior and junior creditors, Schwartz erroneously concluded that strict enforcement of absolute priority would eliminate it. To deal with the conflict between trade and financial creditors, Schwartz initially proposed a regime of majority rule. In my initial reply, I pointed out that majority rule was inconsistent with the non-majoritarian "conversion" process that Schwartz's model used as an updating mechanism. In his response, Schwartz kept majority rule but did not provide an updating mechanism for the majority-rule regime.

Having kept majority rule and admitted that the trade creditors would sometimes be in the majority and prefer a suboptimal contract, Schwartz proposed to avoid the obvious conclusion—the majority would vote for a suboptimal bankruptcy contract—by proposing a Pareto-optimal deal in which the debtor would bribe the trade creditor majority to vote for the optimal contract instead. The proposed deal suffers from two analytical shortcomings. First, because the parties always contract out of majority rule when it matters, majority rule ceases to serve any apparent function in the model. Second, Schwartz failed to specify the mechanism by which the parties would fix the amounts of these newly contemplated bribes.

Schwartz's original model made the unrealistic assumption that the debtor firm knew, years before bankruptcy, the returns that the debtor firm

would earn in bankruptcy and the value of the private benefits management would enjoy. His new model added the assumption that debtors would not lie. The two assumptions combined make it impossible for the debtor to propose suboptimal bankruptcy contracts to creditors, even when they have economic incentives to do so. Even if Schwartz's new model had worked, the implausibility of these assumptions would have prevented it from constituting a solution to the problem of bankruptcy contracting. As it is, Schwartz fails to demonstrate the feasibility of bankruptcy contracting in his model or in the real world.

Schwartz's failure to prove bankruptcy contracting feasible does not prove it infeasible. Given the strong preference of law and economics scholars for a contract solution to the bankruptcy problem, it is inevitable that others will attempt to do what he could not. Schwartz may have found an effective first step when he chose to attempt to prove that bankruptcy contracting could work a single improvement—an optimal choice between reorganization and liquidation—at nominal expense, without causing any detriment. If scholars could prove that a bankruptcy contract would best the state-supplied system in a single respect and adopt the state-supplied system in every other respect, they would prove the contract regime better on the whole. Schwartz's efforts have, however, proven that the task will not be as easy as it may have appeared at first.