Should Business Bankruptcy Be a One-Chapter Book?

BY MITCHELL BERLIN

What makes more economic sense? A bankruptcy system that auctions a firm's assets and distributes the proceeds among the creditors? Or one that allows a firm to seek to resume business after renegotiations between its stockholders and its creditors? Or is there room — or even a need — for both? Mitchell Berlin outlines current U.S. bankruptcy law and looks at recent research that has reopened the debate on the value of separate procedures for reorganizing the bankrupt firm.

Businesses sometimes go bankrupt. That's a fact of life. Bankruptcy may occur because of bad management, an economic downturn, or simply a change in consumers' preferences for the products they buy. As a society, we would like to establish laws to deal with bankrupt firms that allow the firms' managers, workers, and equipment to be deployed elsewhere as quickly and efficiently as possible if the firm is no longer viable. Alternatively, the best solution may not be to break up the firm but to have the firm draw up a new business plan and to reach a new understanding with its creditors.

In the United States, there are two different procedures for a firm's bankruptcy. One, called Chapter 7 (the chapter refers to its location in the U.S. bankruptcy code), auctions all of the firm's assets and distributes the proceeds to the firm's creditors. The second procedure, called Chapter 11, allows the firm to go back into business once it has renegotiated existing contracts with suppliers and creditors.

For many years, critics — both legal scholars and economists — have charged that Chapter 11 is inefficient and should be eliminated. They have argued that reorganization proceedings under Chapter 11 take too long, that they reward and entrench incumbent owners and managers, and that reorganized firms end up being liquidated anyway, often after multiple attempts at reorganization. In contrast, Chapter 7's auction procedure is simpler and more efficient, according to these same critics.

Nonetheless, the U.S. has yet to close the book on Chapter 11. And despite bankruptcy scholars' criticism of Chapter 11, other countries have reformed their own bankruptcy laws to look more like the U.S. law. For example, both England and Germany — with bankruptcy systems that were heavily biased toward the liquidation of enterprises, rather than their rehabilitation — have introduced new provisions facilitating the reorganization of firms. Do these reforms fly in the face of economic reason and experience, or have the critics of U.S. bankruptcy law been missing something important?

In fact, recent economic research has reopened the case against U.S. bankruptcy law. Researchers have shown that seemingly objectionable features of Chapter 11 — for example, the bias toward incumbent owners — may make economic sense. Further, while even proponents of using a single chapter (such as Chapter 7) have always recognized practical difficulties — for example, the possibility that distressed auctions would fetch fire-sale prices for the firm's assets — more recent research has raised new concerns about auctions as a means to sell firms' assets. Researchers have also examined ways in which auction procedures might be modified to address some of these concerns.

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U.S. BANKRUPTCY LAW

Under both Chapter 7 and Chapter 11, a bankruptcy filing triggers an *automatic stay*. Under an automatic stay, the firm's creditors — its bankers, bondholders, trade creditors, or pensioners, among others — must hold off any attempts to satisfy their claims by grabbing the firm's assets. In particular, a secured creditor, whose contract states that in the event of default, she has the right to take possession of one (or more) of the firm's assets (for example, a drill press), must wait until the courts decide who gets what.

The underlying idea of the automatic stay is to blunt the strong incentive that the firm's creditors, especially secured creditors with a legal claim on particular assets, have to run to the courthouse to be first in line. While the first creditors on the courthouse steps may get paid in full and would be satisfied, this disorganized dash would probably leave creditors, as a group, worse off. For example, the drill press may fetch a higher price when sold along with the factory than if sold separately, but the creditor with the secured claim will be concerned only with whether she can sell the drill press for more than the unpaid portion of her loan. A more organized disposal of the firm's assets could ensure a higher sale price for all the firm's assets and, thus, extra dollars to share among the firm's creditors.

Chapter 7: The Creditor Comes First. When a firm enters Chapter 7, its owners and managers are immediately replaced by a court-appointed trustee, who acts as a representative of all claimants as a group. The trustee has two essential roles. The first role is to secure the highest possible value for the firm's assets at auction. Assets might be sold piecemeal; for example, the drill press might be sold separately from the firm's factory building (which might have higher value as a space for an indoor driving range). Alternatively, the factory building and all the machines inside might be most valuable as a single unit. In this case, the trustee would seek a bidder for all the firm's assets.

The trustee's second role is to distribute the money received for the firm's assets, that is, to evaluate and rule on competing claims.[1] In those cases where the firm's financial structure is simple, this is a straightforward job.[2] In other cases, determining the value of various claims may be more difficult, for example, when there are bonds with different levels of priority and debt secured by assets.

Even for relatively simple financial structures, the trustee must be guided by some general principles in deciding the value of competing claims. In the U.S. and most other countries, the overarching principle is the *absolute priority rule*. According to this rule, all investors are ranked in order of priority: Creditors with claims secured by particular assets — collateral — have priority over unsecured creditors. Among the unsecured creditors, those with seniority clauses in their contracts will be paid before those without such clauses. Finally, all creditors have priority over the firm's stockholders.[3] Under the absolute priority rule, all creditors with higher priority must be paid the full value of their claims before those with lower priority receive a single cent.

Chapter 11: The Last Shall Be First. Although a trustee is also appointed in a Chapter 11 proceeding, the firm's owners remain in control of the firm until a reorganization plan has been accepted. The trustee has many roles in Chapter 11, but its main responsibility is to protect creditors' interests. In this role, for example, the trustee will have to approve large corporate expenditures to ensure that owners are not seeking to enrich themselves at creditors' expense.

Unlike the auction and distribution procedure of Chapter 7, Chapter 11 takes the form of *structured bargaining* among investor groups: the firm's owners, secured creditors, unsecured creditors, and so forth. Bargaining is structured in that Chapter 11 prescribes a set of rules under which investor groups present reorganization plans, which are then voted on by committees representing the investors.[4] The firm's owners — often, but not always, represented by incumbent management — have the sole right to propose plans for reorganization for the first six months. In practice, though, the court trustee has substantial discretion to extend this initial period. After six months — or if the trustee determines that the owners can't come up with an acceptable plan — a committee of creditors may then propose its own reorganization plan.

A reorganization plan is a complicated proposal that has two main elements. The first is a blueprint for deploying the firm's assets; this blueprint often calls for the sale of some businesses and the hiring of a new management team to run the remaining business.[5] The second element is an outline of the firm's new financial structure, in particular, how much and what types of securities the various claimants would receive. So, for example, a plan might propose that the firm's banks — whose claims are secured — receive stock and cash worth 92 percent of the value of their outstanding claims, unsecured bondholders receive stock valued at 40 percent of the face value of their outstanding bonds, and the firm's shareholders retain 7 percent of the

[1] I've simplified the discussion by talking about money received for a firm's assets. In reality, bankruptcy claimants could receive securities rather than cash.

[2] Financial structure refers to a firm's mix of bonds, bank loans, and equity.

[3] This is simplified. Other types of claimants exist, for example, the IRS and customers with outstanding lawsuits. Throughout, I focus on the main investor groups. David Epstein's book provides a particularly clear account of the system of priorities.

[4] The trustee determines the precise structure of the committees.

[5] A new management team is put in place 70 percent of the time, according to Edith Hotchkiss's sample. Hotchkiss reviews the evidence concerning management turnover from other studies.

reorganized firm's stock.

Note that any reorganization plan requires an estimate of the firm's ongoing value, both to permit the trustee to evaluate whether the plan serves creditors' interests and to determine precisely what mix of new securities and cash each investor group will receive.[6]

Note also that the payments in the example, which are in line with actual U.S. experience, do not respect absolute priority, even though the bankruptcy code explicitly calls upon trustees to follow this rule. Most strikingly, the firm's existing owners systematically retain a share of the reorganized firm, even though unsecured creditors have received much less than the outstanding value of their claims. Many commentators note that this systematic bias away from absolute priority is the predictable effect of the rules of Chapter 11. Specifically, incumbent owners have lots of power, both because they retain control of the firm and because they get to offer the initial reorganization plan. This power enables them to retain a share of the reorganized firm, even though investors with higher priority have not had their claims satisfied.

BANKRUPTCY WITHOUT CHAPTER 11

Let's Get Rid of Chapter 11. In articles that have been influential among legal scholars and economists, lawyer Douglas Baird and economist Michael Jensen have argued that Chapter 7 can be used either to liquidate or to reorganize firms, and, thus, there is no need for a separate bankruptcy procedure for reorganizations.

One of the key functions of a bankruptcy mechanism is to create an orderly forum for answering two related questions: (1) Are the firm's assets worth more if the firm is simply broken up? (2) Should the firm be placed under new management? But why not settle these questions by auction, with current owners and management teams bidding along with others for the firm's assets? If these assets are more valuable together, the winning bidder will propose reorganization, rather than liquidation. And if current management is the most capable, the winning bidder would not necessarily replace them with new managers.

Of course, the case for Chapter 7 and against Chapter 11 is not really as clear cut as the preceding arguments would make it seem, as I'll discuss later. But underlying most economic arguments against Chapter 11 (and in favor of a single creditor's chapter like Chapter 7) is a simple but powerful economic idea about the features of a well-functioning bankruptcy mechanism. The mechanism should keep separate two issues: (1) how to get the most money for the firm's assets; and (2) how that money should be distributed.

The reason for keeping these issues separate is that while all the firm's creditors may agree on little else, they — indeed anyone with a potential claim on the firm — would agree that all will be made better off if there is a larger pie to divide. And a substantial body of economic knowledge supports using auctions as a means of getting the largest pie. However, bargaining among investor groups over competing reorganization plans invariably mixes the issues of getting the most for the firm's assets and distributing the claims on those assets. It is unlikely that such bargaining would ever arrive at a plan that gives creditors the most money to split up.[10] And since bargaining takes time, the

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A large economic literature supports the use of well-designed auctions as a mechanism for getting the largest possible value for the firm's assets and, in turn, yielding the highest payoff for a firm's creditors.[7]

In contrast, according to its many critics, the structured bargaining of Chapter 11 leads to systematically poor outcomes in economic terms. In addition to promoting the systematic violation of absolute priority,[8] Chapter11 serves as a venue for entrenching inefficient managers (who were, after all, running the firm when it went bankrupt), and the lengthy bargaining process itself leads to increased costs, for example, lawyers' and accountants' fees and other court costs.[9]

[6] Stuart Gilson, Edith Hotchkiss, and Richard Ruback's article presents compelling evidence that reorganization plans have systematic biases in their estimates of firms' value. For example, the firm's priority bondholders would prefer that the court place a low dollar value on the firm, so that subordinated bondholders and stockholders would receive only a small share of the claims on the reorganized firm.

[7] Paul Klemperer's article contains a good review of the existing theoretical literature on auctions.

[8] The merits of absolute priority are discussed below.

[9] The evidence for systematic violations of absolute priority in Chapter 11 is voluminous. See the articles by Edith Hotchkiss for evidence about how often inefficient managers remain entrenched. See the article by Julia Franks, Kjell Nyborg, and Walter Torous for a range of estimates of the administrative costs of Chapter 11.

[10] Mixing the two types of issues also makes bargaining more complicated and creates stronger incentives for groups to use bankruptcy proceedings in a strategic way.

firm's assets may be declining in value while investor groups dicker.[11]

The Reasons for Respecting Absolute Priority. Chapter 11's systematic violation of absolute priority in favor of incumbent stockholders is essentially a distributional issue. If so, what is the significance of the particular distribution dictated by the absolute priority rule? Essentially, absolute priority ensures that claimants' payoffs are made in the same order of priority that would have existed had the distressed firm never entered bankruptcy at all. As argued by Thomas Jackson in his influential book, a well-designed bankruptcy mechanism avoids a race to the courthouse to prevent a disorderly — and value-destroying — assertion of creditors' rights, but it should not overturn contractual agreements that were freely negotiated by the firm and its investors. These contracts were negotiated with an eye toward keeping the firm's funding costs as low as possible and with the intention of raising the firm's value as much as possible.

Deviations from absolute priority will increase the firm's borrowing costs, since creditors who expect to lose out in bankruptcy demand compensation through a higher rate of interest.[12] Even worse, deviations that are hard to predict with certainty raise the firm's financing costs higher still because investors require compensation for the added uncertainty.

SOME PROBLEMS WITH CHAPTER 7

Scholarly debate following Baird's and Jensen's criticisms of Chapter 11 has taken issue with the view that an efficient bankruptcy mechanism would necessarily look like Chapter 7: an auction that gets the largest possible price for the firm's assets, followed by a distribution of the money received in line with the absolute priority rule.[13]

Auctions May Not Obtain the Highest Price for a Firm's Assets. A key feature that distinguishes an auction in bankruptcy from many other auctions is that the potential bidders include individuals with existing claims on the object to be auctioned. In addition to the firm's current owners, the firm's creditors or other investors might also choose to make competing bids. For example, vulture investors — those who buy up a distressed firm's debt at discounted prices in order to play a significant role in bankruptcy proceedings — are experts at managing and breaking up bankrupt firms.[14]

In a textbook auction, no bidder would ever choose to bid more for an asset than it was worth because the bidder has no prior claim on the auctioned item. However, this is not true if the bidder has a prior claim on the asset. Existing claimants systematically *overbid*, that is, they bid more than they think the assets are worth. An existing claimant overbids because if he loses, he gets a share of the money paid by the winning bidder. Thus, unlike in a textbook auction, the claimant gains if a competing bidder ultimately pays too much for the asset.[15] But this means that any potential bidder must take into account not only the possibility of high bids from someone who places a higher value on the firm's assets but also the possibility of high bids from someone whose valuation is actually lower than her own. This is a problem because some outside bidders — ones not connected with the firm — who may have superior

[11] Legally, the trustee may petition the court to shift the bankruptcy proceedings from Chapter 11 to Chapter 7 if he or she feels that creditor interests would be served. However, the trustee could not unilaterally choose to make this decision. Instead, the court would decide after a hearing, with all groups of claimants represented.

[12] This argument is not immune to criticism. Some economists have argued that freely negotiated contracts won't lead to the lowest possible financing costs, so long as the firm negotiates contracts in sequence with different investors. For example, the firm may offer collateral to a new creditor, thus reducing the value of all existing unsecured claims. Fearing this, prior investors would demand a higher interest rate or contractual protections that the prior investors — or their lawyers — must monitor closely. This line of thinking has raised questions about the desirability of absolute priority. See, for example, Lucien Bebchuck and Jesse Fried's article discussing these and related issues.

[13] In this article, I focus on recent theoretical work on the use of auctions in bankruptcy. I don't emphasize some important issues, for example, whether the difficulty of obtaining funding might act as a barrier for some bidders or the possibility that a distressed firm will be forced to sell assets at fire-sale prices. Both of these problems further reduce the relative attractiveness of auctions compared with structured bargaining. Oliver Hart's article discusses and evaluates some of these issues.

[14] Edith Hotchkiss and Robert Mooradian's article describes the activities of vulture investors.

[15] Mike Burkart's article explains overbidding in the context of a model of competing bids to take over a firm, although he notes that the same ideas apply to bankruptcy proceedings.

plans for running the firm (or selling its assets) will be driven away from the auction.[16]

Separating Asset Deployment Issues and Distribution Issues May Be Impossible. One reason auctions of a firm's assets have appeared attractive to economists who think about bankruptcy is that a large literature on auctions has established that many types of auction procedures will yield the same expected revenues to the seller.[17] We might conclude that while existing claimants will disagree about how revenues should be distributed, they should all agree upon an auction procedure that generates the highest expected price.

But the article by Sugato Bhattacharyya and Rajdeep Singh shows that senior and junior creditors would *disagree* about the choice of auction procedures, even when the auctions yield the same expected revenues. The reason is that while we can predict the *expected revenues* for an auction, the *actual price* that will be paid by the winning bidder is uncertain. The riskiness of the bids will be important to the firm's creditors, and different types of creditors will have different risk preferences. Specifically, junior creditors will prefer auction procedures with a higher probability of both very low and very high bids because they get paid only if the senior creditors have already been paid in full.[18] And auction procedures that generate a wide dispersion of returns increase the probability that junior creditors will get paid. By the same reasoning, senior creditors prefer auctions with a narrower range of bidding.[19]

One conclusion we can draw from Bhattacharyya and Singh's article is that there is *no* bankruptcy procedure — and that includes auctions — in which asset deployment and distributional issues can be completely separated, at least as long as investors hold different types of claims that yield different preferences about risk. (See *The Options Approach*, for an ingenious auction procedure that helps overcome this problem.)

TWO CHAPTERS ARE BETTER THAN ONE

Much of the literature on bankruptcy has assumed that absolute priority is a necessary component of an efficient bankruptcy law. However, a recent article by Elazar Berkovitch and Ronen Israel explains why systematic deviations from absolute priority may make economic sense.[20] Their model indicates that an efficient bankruptcy system includes a number of features that resemble the different bankruptcy laws we observe around the world. In fact, their model demonstrates that some types of economies are best served by a bankruptcy mechanism with two chapters: *a creditor's* chapter with similarities to Chapter 7 and a *debtor's* chapter with similarities to Chapter 11. Thus, their model suggests that a bankruptcy mechanism like that in the U.S. does have certain desirable features. However, Berkovitch and Israel's research also suggests that other types of economies are best served by a single chapter: the *creditor's* chapter. This system resembles the traditional British bankruptcy system.

The two types of chapters differ according to who initiates the bankruptcy and whether the chapter violates absolute priority by giving incumbent stockholders a share of the reorganized firm. The debtor's chapter is initiated by the firm's stockholders and violates absolute priority. The value of violating absolute priority is that stockholders are given an incentive to voluntarily seek bankruptcy if they have information that the firm is likely to fail.

Stockholders will never voluntarily seek the protection of the bankruptcy court unless there is something to gain by doing so. Inducing stockholders to voluntarily enter bankruptcy can be valuable because the firm's owners are often the first to become aware of serious financial troubles. Postponing bankruptcy too long hurts all creditors because a troubled firm's assets typically continue to decline in value until the firm is reorganized or dissolved. Thus, even creditors would agree to give up a piece of a larger pie to shareholders if it's necessary to induce stockholders to enter bankruptcy voluntarily.

The creditor's chapter, which, as its name suggests, is initiated by creditors, respects the absolute priority rule. This chapter permits creditors that are well informed about the firm's affairs

[16] Per Stromberg's article presents some empirical evidence that overbidding actually occurs in Swedish bankruptcy auctions.

[17] Some of the more familiar forms of auctions include the ascending-bid auction and the sealed-bid auction.

[18] Actually, junior creditors (like all creditors) would prefer auctions that yield only high bids most of all. To focus on different investors' preferences for different degrees of risk, Bhattacharyya and Singh compared auction procedures that have the same expected return and different amounts of dispersion

[19] The precise result shown by Bhattacharyya and Singh is that a senior creditor strictly prefers a sealed-bid first-price auction to a sealed-bid ascending-bid auction, while a junior creditor prefers the opposite. In an ascending-bid auction, bids rise until all but one bidder has dropped out. Thus, the winner need only pay (slightly more than) the price bid by the second-highest bidder. When the ascending-bid auction is a sealed-bid auction, none of the bidders sees when the others drop out. In a sealed-bid first-price auction the winner pays his or her own bid price, rather than the price bid by the second-highest bidder. Since the bids are sealed, bidders do not see one another's bids..

[20] This is the most ambitious of a series of articles by Berkovitch and Israel (along with Jamie Zender) that explain why violations of absolute priority may be desirable. The common theme of these articles is that managers, with superior information, must be provided incentives to act on investors' behalf. In general, this requires that the manager receive a share of the firm's value in bankruptcy.

to petition for bankruptcy without giving anything to incumbent owners. Unless the creditors are relying on the firm's owners to enter bankruptcy voluntarily, creditors would never give the owners a portion of the money received for the bankrupt firm's assets. Owners will typically work harder to make the firm profitable and avoid bankruptcy if they know they're not getting a share of the assets when the firm goes bankrupt.

Either System May Be Superior. In an undeveloped financial market, especially one characterized by strong relationships between a borrower and its lender, Berkovitch and Israel predict that an efficient bankruptcy law will have only a creditor's chapter.[21]

In a relationship-driven financial market, adding a debtor's chapter would be both not very helpful and too costly. Not very helpful, because the lender's information about the borrower is likely to be good when relationships are close; thus, the creditor's chapter will enforce efficient liquidation most of the time even without using the firm's information.[22] Too costly, because a firm with bad news about its prospects will have a powerful incentive to use the debtor's chapter to preempt its lender from initiating proceedings, so as to capture a share of the payoffs in bankruptcy.

In an economy without close lending relationships, but with many different individuals, analysts, and investors producing information about firms, a two-chapter system may be both feasible and desirable. In such a system, a firm can't predict with certainty what creditors know about its financial condition, since the information available to a firm's owners and the information available to market participants are different. In this case, should a firm's owners become aware of serious problems, they will not always seek court protection to pre-empt creditors from forcing the firm into bankruptcy. After all, it may turn out that the firm's creditors won't receive information that would lead them to do so. Nonetheless, the firm's owners will sometimes enter bankruptcy voluntarily, thus improving the decisions made about liquidating and reorganizing firms. In such an economy — for example, the United States — two chapters can coexist and improve on a single-creditor chapter.

Interestingly, Berkovitch and Israel's model predicts that in an economy in which firms reduce their reliance on banks and shift more of their financing toward capital markets, an efficient bankruptcy system would shift from a single-chapter system (with only the creditor's chapter) to a two-chapter system. This shift toward capital markets is a trend in many developed countries. And, as predicted, many nations have introduced bankruptcy reform (and reform proposals) along the lines of the two-chapter model in the United States.

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CONCLUSION

Recent economic scholarship on the efficiency of existing bankruptcy mechanisms has been a productive source of insights. Substantial empirical evidence holds that Chapter 11 reorganization proceedings are drawn out, costly affairs, with a significant bias toward incumbent owners that is reflected in systematic deviations from absolute priority. Some critics have suggested replacing the two-chapter bankruptcy system of the U.S., in which auctions are used to liquidate firms in Chapter 7 and bargaining among claimants is used to reorganize firms in Chapter 11. Specifically, the critics argue that all bankruptcies, whether liquidations or reorganizations, can be handled through auctions.

These proposals have generated further debate. While the outcome of the debate is not conclusive, a number of provisional conclusions have arisen. Although critics have complained that Chapter 11 proceedings don't separate the valuation of the firm's assets from the distribution of this value to claimants, it now seems clear that auctions suffer from the same problem. Furthermore, theorists have provided explanations not only for systematic deviations from absolute priority but also for bankruptcy mechanisms with significant similarities to the two-chapter bankruptcy mechanism in the United States.

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[21] The combination of undeveloped financial markets and strong relationships is probably a fair description of Japan until the 1980s.

[22] If creditors have conflicting interests — for example, if some claims are collateralized — it is possible that creditor-initiated proceedings could lead to premature liquidation. However, the automatic stay greatly reduces the possibility that any creditor could gain by pushing the firm into bankruptcy prematurely.

THE OPTIONS APPROACH

As long as existing claimants on the bankrupt firm have different types of claims, decisions about how the firm's assets should be handled can't be separated from decisions about how the value of these assets should be distributed. Thus, claimants would not unanimously support efficient plans for selling the firm's assets or reorganizing under new management.

Lucien Bebchuck proposed the following approach to satisfying claimants in bankruptcy.[a] The basic idea is that if all creditors have the same type of claim, their interests are harmonized, and getting the most value for the firm's assets becomes everyone's objective. Bebchuck's idea is to give senior creditors all of the firm's equity. They would receive pro rata shares, according to the size of their claim on the firm. Junior creditors would receive options to buy senior creditors' shares for cash. The firm's stockholders would similarly receive options to buy out the claims of both classes of creditors.[b]

To get an idea how this would work, consider a highly simplified example with only *two* types of claimants. At bankruptcy, the firm has 100 bondholders, each with $1 debt outstanding, and five shareholders, each with 20 shares of the firm's total 100 shares of stock issued. Under this scheme, the 100 shares of stock would be distributed equally among the 100 bondholders, with each receiving one share. Each stockholder would receive an option to buy up to 20 shares of stock at $1 per share. The exercise price of the option ($1) is set so that the firm's former bondholders are obliged to sell their current shares as long as they are offered at least as much as the face value of the their original bond.[c]

Before individuals make decisions about whether to exercise their options, a trustee would solicit plans for selling the firm's assets or reorganizing the firm. Participants' ability to buy and sell their options would ensure that those individuals who place the highest value on the firm could amass a majority of the firm's equity. Under this procedure, there is no need for everyone to agree that a particular plan for the firm is best; those who don't agree would sell their option to the individual who places the highest value on the firm.

If the firm's former stockholders believe that the firm is worth less than $100 — even under the best plan — they would not exercise their options to buy the firm's shares because the cost of exercising the option exceeds the value of the firm. However, if they believe that under some plan the firm is worth, say, $120, the firm's former stockholders *would* choose to exercise their options to buy the firm's shares for $100. And since options can be sold, if other investors believe that they have a plan worth more than $100, the former shareholders would gladly sell their options even if they disagree about the value of the plan.

Of course, no procedure is perfect. This approach does not overcome the problem that existing claimants have an incentive to overbid. Thus, we can't assume that bidders with the highest valued plan for the firm's reorganization or liquidation will participate. Also, as in any auction, the procedure will work well only if those who place a high value on the firm can also finance their purchase of equity or options. Furthermore, for firms with both secured debt and unsecured senior debt, the procedure may not be as straightforward as in the example. In this case, the procedure must take account not only of the value of the plan as a whole but also of the value of those assets pledged as collateral.

[a] Although the basic idea is Bebchuck's, Philippe Aghion, Oliver Hart, and John Moore extended Bebchuck's procedure to include a separate stage in which potential suitors propose different reorganization plans, as developed here.

[b] The scheme does not require that investors purchase *all* of the claims of a senior class. However, an investor (or group of investors) may need to purchase a majority of the shares of the firm to gain control of the firm to ensure that a particular reorganization plan is carried out.

[c] For a firm with a more complicated financial structure — with claims of many different priorities — a junior group receives options to buy out all claimants who are senior to that group. The version of Bebchuck's scheme developed here maintains absolute priority by requiring the senior claimant to sell at the exercise price. However, the scheme can be modified to permit deviations from absolute priority if so desired.

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