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ABSTRACT

There is a widespread dissatisfaction with bankruptcy procedure throughout the world. Bankruptcy reform is being actively considered in the U.K. and France and is in the air in the U.S. This paper discusses problems with existing procedures and possible improvements. Its main point is that existing reorganization procedures are flawed because they mix the decision of who should get what with the decision of what should happen to the bankrupt company. A procedure that does not suffer from this disadvantage is described.

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1. Introduction

There is a widespread dissatisfaction with bankruptcy procedures throughout the world. Bankruptcy reform is being actively considered in the U.K. and France and is in the air in the U.S. East European countries that must select a bankruptcy law for their new capitalistic economies have had a hard time making the choice and in some cases, dissatisfied with their original decisions, are already making changes.[1] Russia has recently implemented a bankruptcy law that seems to be complex and to suffer from many of the disadvantages of Western procedures.[2]

We believe the reason for this unsettled state of affairs is that bankruptcy law has developed in a fairly haphazard manner, as a series of attempts to solve perceived immediate problems. There has been relatively little effort to step back and ask what the goals of bankruptcy procedure should be, or to consider how one would set up an optimal bankruptcy procedure if one were starting from scratch. To put it another way, economic analysis—which has been applied with such great success to other aspects of law in the

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last thirty years—has, with a few notable exceptions, not been used to shed light on optimal bankruptcy procedure.[3]

This paper attempts to provide an economic perspective on bankruptcy procedure. In Sections 2 and 3, we discuss the rationale for, and goals of, bankruptcy procedure. Section 4 describes how existing procedures fall short of these goals. Our main point will be that reorganization procedures like Chapter 11 are flawed because they mix the decision of who should get what with the decision of what should happen to the bankrupt company. In Section 5, we turn to a procedure that we have proposed elsewhere, which we believe would improve on existing procedures.[4] In our scheme, debt claims are converted into equity, and the decision about whether to reorganize or liquidate is then put to a vote. The merit of the scheme is that all claimants, once they are shareholders, have a common interest in voting for the efficient outcome. In Section 6, we discuss some practical difficulties concerning our proposal and how they might be resolved. Section 7 contains concluding remarks.

2. Background

Companies take on debt for many reasons. To mention just a few, they may wish to reduce taxes; they may wish to commit themselves to reduce slack; they may wish to signal that future prospects are good. Whatever the reason, there will be circumstances, arising perhaps from an unexpected shock, where the company will be unable to pay its debts. Bankruptcy law is concerned with what should happen in such situations.

The analysis of optimal bankruptcy law is complicated by the following observation. In an ideal world, debtors and creditors would anticipate the possibility of default and specify as part of their initial contract what should happen in a default state: in particular, whether the company should be reorganized or liquidated and how its value should be divided up among the various creditors. In other words, the parties would provide their own bankruptcy procedure: there would be no need for a state-provided bankruptcy procedure.

In practice, transaction costs are likely to be too large for debtors and creditors to craft their own bankruptcy procedures, particularly in situations where debtors acquire new assets and new creditors as time passes. Instead, parties may prefer to rely on a "standard form" bankruptcy procedure provided by the state. It is a long way from this observation, however, to any conclusions about the <u>nature</u> of such a standard-form procedure. The problem is that the theory of optimal contracting in the presence of transactions costs (the "theory of incomplete contracts") is in its infancy; in particular, we are aware of no formal analysis that <u>both</u> explains why it is rational for parties to leave out of their contract what should happen in a default state <u>and</u> shows how a state-provided procedure can improve matters.[5]

Thus, in what follows we do not derive an optimal bankruptcy procedure from first principles. Instead our approach is to use economic theory to guide us as to the nature of a "good" bankruptcy procedure. In the next section we suggest some goals that an efficient bankruptcy procedure should satisfy. Later (in Section 5), we describe a procedure that we believe meets these goals. Although we do not claim that our procedure is optimal, we think that it is practical and avoids some of the pitfalls of existing procedures. Also the procedure is sufficiently simple and natural that future work may show it to be optimal, at least within a reasonable class of procedures.

It is also worth pointing out that, while we propose our procedure for use by the state, it could, in principle, also be adopted by companies of their own accord. In other words, to the extent that a company can opt out of existing bankruptcy procedures, it may wish to select our procedure—as a mechanism for resolving financial distress—as part of its initial contract with its creditors.

3. Goals of Bankruptcy Procedure

As noted, we do not proceed from first principles. However, we believe that economic theory suggests that the following are desiderata for a bankruptcy procedure.

1. A good bankruptcy procedure should try to achieve an ex-post efficient outcome (that is, an outcome that maximizes the total value of the proceeds—measured in money terms—received by existing claimants). The efficient outcome may be to close the company down and sell off the assets for cash; to sell the company as a going concern for cash; or to reorganize the company.[6]
2. A good bankruptcy procedure should be neither too soft on "bad" companies (that is, companies that should be closed down or sold off for cash) nor too hard on "good" companies (that is, companies that should be reorganized). In particular, a good bankruptcy procedure should encourage new uses of the company's assets; it should not favor incumbent management.
3. A good bankruptcy procedure should preserve absolute priority. That is, the most senior creditors should be paid off before anything is given to the next most senior creditors; and so on down the ladder (with ordinary shareholders at the bottom).

4. A good bankruptcy procedure should leave as little discretion as possible in the hands of the judiciary or experts.

Let us briefly discuss the rationale for (1)-(4). (1) simply reflects the idea that, other things equal, more is preferred to less; in particular, if a procedure can be modified to deliver higher total ex-post value, then, given that absolute priority is preserved (i.e., (3)), everybody will be better off. Note that it is a property of most (but not all) contracting models that an optimal (ex-ante) contract is ex-post efficient.[7]

(2) reflects the idea that debt may have an important role in constraining or bonding managers to act in the interest of claimholders. Managers may have taken on debt at an earlier stage as a way of committing themselves to reduce slack.[8] A bankruptcy procedure that lets management off too lightly if they fail to pay their debts—for example, by favoring them in the reorganization process—will interfere with the ex-ante bonding role of debt. In particular, management's incentive to reduce slack will be diminished to the extent that they can put the company into bankruptcy and with high probability retain their jobs.

Absolute priority (i.e., (3)) is desirable for several reasons. First, it corresponds to what the parties contracted for outside bankruptcy; that is, if the company were sold outside bankruptcy and there was not enough cash to pay creditors off, senior creditors would be paid off, followed by junior creditors, etc. If contracts are not upheld within bankruptcy, creditors—particularly senior ones—may be less willing to lend to the company in the first place. In addition, Jackson (1986) has argued, any discrepancy between what a class of claimants gets inside bankruptcy and what it gets outside bankruptcy could lead to inefficient rent-seeking—with some people bribing management into deliberately precipitating bankruptcy, and other people attempting to forestall bankruptcy.

Second, the priority of a company's capital structure provides an important instrument for constraining management's ability to raise fresh capital. Under certain circumstances, for example, management may issue senior debt—which mops up earnings from assets in place—in order to constrain itself not to raise further capital in the future to fund unprofitable, but empire-enhancing projects. This ability to commit will be weakened to the extent that the seniority of initial claims is not respected, i.e., new claims issued at a later date are not treated as junior to existing claims in a bankruptcy procedure.[9]

(4) simply captures the idea that it is better to put decisions in the hands of claimants who suffer the consequences of these decisions than in the hands of outsiders (judges, insolvency practitioners) who do not.

Although we believe that (1)-(4) have great appeal, they are not beyond question. Bankruptcy scholars have raised doubts about goal (3) in particular. The argument made is that, if equity-holders get little or nothing in a bankruptcy proceeding, then management—acting on their behalf—will delay filing for bankruptcy for too long and "go for broke." In other words, absolute priority encourages management to engage in risky, but inefficient, behavior to stave off bankruptcy.

We are skeptical about this argument. It supposes that management automatically acts on behalf of shareholders, an assumption that may be plausible for small owner-managed companies, but which is questionable for large, public companies. The recent theoretical literature on agency costs and capital structure argues that it is more reasonable to suppose that management is self-interested.[10] Under these conditions, there is a case for making bankruptcy procedure not too harsh for managers—to prevent them from engaging in highly risky behavior to save their jobs—but this is already covered under (2).

Even in the case of small companies, it is far from clear that departures from absolute priority are the best way to soften the blow of bankruptcy. A better method might be to give managers and/or owners a golden parachute in the form of senior debt.

Given the above, we shall assume that (1)-(4) are desirable. It is worth noting, however, that the procedure we propose in Section 5 could easily be modified to allow for departures from absolute priority if this were felt to be a good idea.

A final point worth making is that some of goals (1)-(4) may be in conflict. For example, suppose incumbent management has special skills. Then ex-post efficiency—goal (1)—might call for the incumbent management of a bankrupt company to be retained with high probability. However, knowing this, management might have little incentive to avoid bankruptcy, i.e., goal (2) would not be served.[11]

Given this, it is unlikely that any bankruptcy procedure can achieve all of goals (1)-(4). The best we can probably hope for is a reasonable balance between these goals—particularly goals (1) and (2). The procedure discussed in Section 5 is constructed with this in mind. Although we feel that it does a satisfactory job in this respect, the procedure could quite easily be fine-tuned if the balance were felt to be wrong; we return to this point in the conclusions.

4. Existing Procedures

Although there are many different bankruptcy procedures used around the world, these procedures fall into two main categories: cash auctions and structured bargaining. We discuss these in turn, paying particular attention to their application in the U.S. and U.K.

(1) Cash Auctions (as in Chapter 7 in the U.S. or Liquidation in the U.K.)

In a cash auction, the company is put on the block and sold to the highest bidder. Often the company's assets are sold piecemeal, i.e., the company is liquidated. Sometimes, however, the company is sold as a going concern. Whichever occurs, the receipts from the sale are distributed among former claimants according to absolute priority.

In a world of perfect capital markets, a cash auction would (presumably) be the ideal bankruptcy procedure.[12] Anybody who could make the company profitable would be able to raise cash from some source (a commercial bank, an investment bank, the stock market) and make a bid for the company. Perfect competition among bidders would ensure that the company was sold for its true value.

In practice, there is widespread skepticism about the efficacy of cash auctions. The feeling is that a combination of transaction costs, asymmetric information, and moral hazard makes it difficult for bidders to raise cash to maintain a company as a going concern (i.e., capital markets are not perfect). As a consequence, there may be a lack of competition in the auction and few bids to keep the company whole. The result will be that some companies are liquidated piecemeal at a low price.

It is worth spelling out a transaction cost reason for imperfect capital markets. Suppose a large public company is put on the block. A person or group of people making a cash bid for the company is, in effect, taking the company private. Their intention may well be to take the company public again later. The problem is that in the interim period this group is bearing the risk of changes in the company's value. They will, of course, "charge" for this risk-bearing by offering a lower price in the original auction. The consequence of this is two-fold. First, their going-concern bid may lose to a collection of piecemeal bids for the company's assets, since the latter achieve risk-sharing by spreading risk over a large number of bidders. Second, whoever wins the auction, the amount of cash raised will tend to be lower.[13]

The above transaction cost arises because of the difficulty of assembling a suitable group of investors to be risk bearers for the new company. Note, however, that there is a natural group of risk bearers at hand: the former claimants (who were, after all, the previous risk bearers). Transaction costs would be reduced if bidders could reach this group directly by offering them securities in the post-bankruptcy company. This is not allowed for in a cash-only auction like Chapter 7 but is a key feature of the procedure we propose in Section 5 (and also of Chapter 11; see below).

Neither the above theoretical argument nor the empirical evidence described in endnote 13 provides much indication of the magnitude of the imperfections in capital markets. Given this, any bankruptcy procedure adopted should have the property that it works well both for the case where capital markets are perfect and for the case where they are not. The procedure described in Section 5 has this feature. As we shall see, it consists of an auction in which both cash and noncash bids for the company are allowed. If capital markets are perfect, the highest cash bid should always win and thus the outcome should be exactly the same as in a cash-only auction. On the other hand, if capital markets are imperfect, the procedure can deliver an outcome that is superior to that achievable by a cash auction.

(2) Structured Bargaining (as in U.S. Chapter 11 or U.K. Administration)

Because of the concern about the effectiveness of cash auctions, a number of countries have developed alternative procedures, based on the idea of structured bargaining. The basic idea behind these procedures is that the company's claimants are encouraged to bargain about the future of the company--in particular, whether it should be liquidated or reorganized and how its value should be divided up—according to predetermined rules. The leading example of a structured bargaining procedure in the West is Chapter 11 of the U.S. bankruptcy code; however, U.K. Administration is based on similar ideas as are procedures in France, Germany, and Japan.

The details of Chapter 11 are complicated, but the basic idea is that a stay is put on creditors' claims; claimholders are grouped into classes according to the type of claim they have; committees or trustees are appointed to represent each class; and a judge supervises a process of bargaining among the committees to determine a plan of action for the company, together with a division of value. During the process, incumbent management usually runs the company. An important part of the procedure is that a plan can be implemented if it receives approval by a suitable majority of each claimant class: unanimity is not required.

Remark. U.K. Administration was introduced in the 1986 Insolvency Act as "the British version of Chapter 11." An important difference between U.K.

Administration and Chapter 11 is that the administrator (who is an insolvency practitioner) runs the company during bankruptcy, rather than incumbent management. There are also a number of differences in the voting rules between the two procedures. To date, the costs of Administration are such that it has rarely been used.

Chapter 11 has been subject to a great deal of criticism in the last few years. Among other things, practitioners and commentators have claimed that it is time-consuming, that it involves significant legal and administrative costs, that it causes considerable loss in the bankrupt company's value, that it is (relatively) soft on management, and that the judges who run it sometimes abuse their powers.[14]

It would undoubtedly be possible to modify Chapter 11—and procedures like it—to improve matters, and a number of suggestions along these lines have been made. However, we believe there are two fundamental problems inherent in any structural bargaining procedure that no amount of tinkering can solve. These problems arise from the fact that a structured bargaining procedure like Chapter 11 attempts to make two decisions at once: what to do with the company, and who should get what in the event of a restructuring of claims.

<u>Problem 1</u>. Restructured companies do not have an objective value, and so it is hard to know what fraction of the pie each group of creditors is entitled to. As a result, there can be a great deal of haggling.

<u>Problem 2</u>. Perhaps even more serious, there is a danger that the wrong decision will be taken over the company's future. The voting mechanism is fixed in advance, which means that those people whose payoff ought not to be

affected by the outcome (either because they are fully protected anyway, or because they are not entitled to anything) may end up being pivotal.

Problem 1 is well understood, having been discussed at some length in the literature.[15] Problem 2 has also been noted but has been subject to less analysis. An example may help to illustrate it.

Example A. Suppose senior creditors are owed $100, and the liquidation value of the company is $90. Assume that if the company were maintained as a going concern for six months then it would be worth on average $110 (take the discount rate to be zero). However, there is uncertainty: if things go well, it will be worth $180; if things go badly, it will be worth only $40. (The average of $180 and $40 is $110.) Clearly, the value-maximizing choice is to keep the company going, since $110 exceeds the liquidation value of $90. However, it is not in the senior creditors' interest to do this. If things go well, and the company is worth $180, the senior creditors get only the $100 they are owed. But if things go badly, they get just $40. The average of these amounts if $70, which is less than the $90 the senior creditors receive from immediate liquidation.

In this example a reorganization plan—although efficient—could be voted down by senior creditors and the company liquidated. This is in spite of the fact that there is enough value in the efficient outcome for the senior creditors to be paid off in full: $110 exceeds the $100 senior debt. Had the senior creditors been paid off, and the vote left in the hands of the junior creditors and the shareholders (whose money is at stake), then the junior creditors would have taken the efficient decision about the company's future.

Things may go the other way, though. Consider a variant on Example A:

Example B. As in Example A, except that the upside value from continuation is lower—only \$120 rather than \$180. That is, the average value from continuation is \$80 (the average of \$120 and \$40).

In Example B, the junior creditors and shareholders are not entitled to anything, since the best that can happen to the company is that it is liquidated for \$90, which is less than the senior debt. So the junior creditors and shareholders ought not to be party to the decision over the company's future. And yet, the rules of Chapter 11 dictate that they do have votes, and, as a result, they may be in a position to press for continuation (since they can see the upside potential of \$120).[16] If the junior creditors and shareholders have enough votes to veto a liquidation plan, then at best the senior creditors may have to bribe them to accept it, and at worst the company may be inefficiently kept going. Notice that, had the vote been left in the hands of senior creditors, they would have taken the correct decisions about the company's future.[17]

At this point, it is worth standing back and asking why the various claimants cannot bargain around the inefficiencies described in Example A and B, i.e., why the Coase Theorem does not solve Problems 1 and 2. Probably the most important reason is that, in the case of large companies, there are often numerous claimants (bondholders, trade creditors, and shareholders), and this can make negotiation around a given (inefficient) procedure very difficult and lengthy (because of free rider and holdout problems, combined with asymmetries of information among claimants).

Consider Example A where senior creditors might vote down an efficient reorganization plan. Such an outcome could be avoided if junior creditors and shareholders could buy out the senior creditors at a price slightly above \$100 (the senior creditors would clearly accept such an offer). However, the more numerous and heterogeneous the junior creditors and shareholders are, the more difficult it is—and the longer it will take—to coordinate such an offer (each junior claimant will want the other junior claimants to buy out the senior creditors). As a result, either an agreement may fail to be reached or it may take a long time (there may be a war of attrition).[18]

Similar problems arise in Example B, where senior creditors must collectively decide to make concessions to junior claimants to compensate them for not pursuing reorganization. It may be easier to achieve agreement in Example B, however, to the extent that the number of senior creditors is (relatively) small and they find it easier to coordinate their actions.

A structured procedure like Chapter 11 reduces the severity of the above bargaining problems by making the majority's will binding on the minority (this eliminates the possibility of free-riding and holdout behavior). However, even in this case, asymmetries of information can prevent an efficient outcome from being reached. If, in example A, junior claimants are unsure whether the company's liquidation value is really \$90 or \$80, they may, quite rationally, offer the senior creditors \$80 to compensate them for not liquidating, in which case the senior creditors with positive probability will turn them down.

5. An Alternative Procedure

We can summarize the previous discussion as follows. We believe existing bankruptcy procedures are flawed for two reasons: either they assume perfect capital markets (as in Chapter 7); or they mix the decision of what should happen to the company with the decision of who gets what (as in Chapter 11). We now describe a procedure which does not suffer from these defects.

The key lies in transforming a group of people with different claims (and therefore different objectives) into a homogeneous class of shareholders, and then putting the company's future to a simple vote. Our proposal also avoids bargaining over the division of the pie, since it uses a mechanical procedure for distributing shares that preserves absolute priority.

The philosophy underlying the procedure—and the procedure itself—can be most easily understood in the case where a company has a single class of creditors, owed D say. Suppose the company defaults on its debt or for some other reason enters bankruptcy. The presumption is that the firm is worth less than D, since otherwise it should have been able to avoid bankruptcy by borrowing or issuing new equity to pay off existing creditors. Given this, the following bankruptcy procedure seems natural: cancel the company's debts, give all the equity to the former creditors, and let these creditors—as the new owners—decide what to do with the firm; that is, whether it should be sold off for cash or reorganized as a going concern. To this end, let the judge supervising the procedure solicit bids for the company, but permit noncash bids as well as cash bids. In a noncash bid, someone offers securities in the post-bankruptcy company instead of cash; thus a noncash bid embraces the possibility of reorganization and/or recapitalization of the company as a going concern.

Here are some examples of a noncash bid:

- The old management team propose to keep their jobs, and offer claimants a share in the post-bankruptcy company.
- The same financial arrangement might be offered by a new management team.

- The management team of another company might propose to buy the bankrupt company, offering shares in <u>their</u> company as payment
- Management (old or new) might induce some debt in the company's capital structure. One way to do this would be to arrange for a bank to lend money to the post-bankruptcy company (the loan is conditional on the bid succeeding), and offer claimants a combination of cash and equity in the (levered) company. Another way would be to offer claimants a combination of shares and bonds in the post-bankruptcy company.

Three months, say, are allowed for bids to be made. Finally, after the bids are in, let the creditors decide by a simple majority vote which bid to select. The company then exits from bankruptcy. (At this point, it may be helpful to consult the time-line in Figure 1; some aspects of this time-line will be explained later.)

<u>Remark</u>: For the bidding process to work well, it is important that potential bidders have reasonably accurate information about the company's prospects. Part of the bankruptcy judge's job will therefore be to ensure that bidders have access to the company's books during the three-month bid solicitation period. Another part of the judge's job might be to evaluate, and make recommendations about, the bids, possibly with the help of appointed outside experts (e.g., an investment bank). These evaluations and recommendations would not be binding, however, i.e., the creditors would be free to ignore them.

The above is the bare bones description of the Aghion-Hart-Moore (AHM) procedure. Let us now discuss two elaborations.

(1) It is possible that the company really is worth more than D. This could be the case if, say, the company was being run inefficiently by incumbent management prior to bankruptcy, but will be run efficiently post-bankruptcy. Under these conditions, the above scheme overpays creditors—they get equity worth more than D—and initial shareholders are short-changed. In order to deal with this possibility, the AHM procedure incorporates an idea due to Lucien Bebchuk (1988). Each shareholder is given the option to buy out the creditors for the pro-rata value of their debts (that is, a shareholder who held 1% of the equity is given the right to buy back up to one percent of the equity for a price of D per 100%; note that creditors who are bought out must relinquish their equity—they cannot hold on). These options are exercised once the bids are in—so that an assessment of the firm's value can be made—but <u>before</u> the vote. An extra month is allowed for this purpose; see again the time-line below. In addition, options can be bought and sold (at month 4, unexercised options expire and are thus worthless).

The point of these options is simple. Any shareholder who thinks former creditors are being overpaid can do something about it; he (or she) can, on a pro-rata basis, pay them what they are owed and get their equity in return.

(2) Companies often have several classes of creditors. The AHM procedure can be extended to this case quite easily, again using Bebchuk options. Suppose, for instance, there are two classes of creditors: senior creditors owed D_1 and junior creditors owed D_2. Then, initially, all the equity is given to senior creditors. However, junior creditors are given options to buy equity back from the senior creditors for a price of D_1 per 100%, while shareholders are given options to buy equity back from senior and junior creditors for a price

of $D_1 + D_2$ per 100%. (The scheme generalizes in a natural way to the case of n classes of creditors.)

Again these options are exercised after the bids are announced, but before the vote.

To see how this works, suppose first that the best bid is perceived to value the company at less than D_1. Then no one will want to exercise their options (the junior creditors will not want to spend D_1 to get something worth less; and, a fortiori, the former shareholders will not want to spend $D_1 + D_2$), and the creditors will end up with all the equity. Suppose next the best bid is perceived to be worth more than D_1, but less than $D_1 + D_2$. Then the junior creditors will choose to buy out the senior creditors, but the former shareholders will not want to exercise their options. Finally, if the best bid is perceived to be worth more than $D_1 + D_2$, then the shareholders will buy out both classes of creditors.

It should be clear that these options preserve the absolute priority of claims even though there is no objective valuation of the company.

The other important point is that at the time of the vote all claimholders' interests are aligned. Whether those voting are former creditors or former shareholders (who have bought out the creditors), they are now all shareholders and so have an incentive to vote for the highest value bid.

Let us take a look at how our scheme operates in Examples A and B. In Example A, suppose that there were two bids: a cash bid of $90, and a noncash bid (from incumbent management) to continue running the company. The noncash bid is perceived to be worth $110 on average, and so dominates the cash bid. The big difference between our scheme and Chapter 11 is that if the former creditors as shareholders get to vote, they will choose the noncash bid, since they enjoy all of the potential upside gains from continuation. Of course, in this instance the former shareholders will be eager to exercise their options, since by spending $1 they obtain a share worth $1.10 (we are ignoring junior creditors). That is, the former creditors will get paid their $100 in full by the former shareholders; and the former shareholders, as residual claimants, will vote to maintain the company as a going concern. A good company has been saved.

In Example B, suppose again that there were two bids: a cash bid of $90, and a noncash bid (from incumbent management) to continue running the firm. The noncash bid is perceived to be worth only $80 on average and so is dominated by the cash bid. Here, the former shareholders will not exercise their options, and the former creditors will vote to liquidate and receive $90. A bad company has been shut down.

Notice that Problems 1 and 2 have been resolved, but at the same time the scheme allows for the possibility of reorganization. In Example A, incumbent management are able to bid for their jobs even though they may not have the cash in hand; and any incentive on the part of the creditors to liquidate the company prematurely is avoided. In Example B, management are rightly unable to keep their jobs. In neither example is there scope for haggling. And in both examples, the people who end up voting over the future of the company are the residual claimants (i.e., those who bear the consequences of their actions); and as a result, the final outcome is the value-maximizing choice.

Of course, there may be a divergence of opinion about the value of the best bid (or indeed about which bid will win). No matter, because the scheme is decentralized, everyone can act as they wish. The more bullish people will buy out the creditors above them, and the others will not. For larger companies, markets may develop (during the fourth month) in which shares and options could be traded.

6. Further Considerations

In this section, we briefly raise some additional issues and discuss a number of practical problems that might arise under our scheme.

1. Treatment of Junior Creditors and Former Shareholders

In our scheme, junior creditors are required to buy out senior creditors before they receive anything. A concern may be that they do not have the cash on hand to exercise their options and that putting the onus on junior creditors to raise cash will unduly disadvantage them.

We have a modification of our scheme which ameliorates this problem. Once the bids are in, the bankruptcy judge will be able to place a lower bound on the value of the compoany, equal to the size of the best cash bid, V^c say (an objective amount). Given this, he could proceed as if the firm were worth V^c, and distribute shares accordingly. If V^c exceeds the amount owed to senior creditors, the junior creditors will receive a fraction of the shares in the initial distribution. For example, if the senior creditors are owed $100, and the best cash bid that comes in is for $150, then the senior creditors would be issued two thirds of the shares, and the junior creditors would be issued one third. Of course, there may be a noncash bid which the junior creditors perceive to be worth more than $150, in which case the senior creditors would still be getting too much; but in such a case the junior creditors could exercise their options to buy them out.

Of course, even with this modification, junior creditors might still be shortchanged. The worst case would be that there is no cash bid; here $V^c = 0$, and all the equity is initially allocated to senior creditors. How bad are things for the junior creditors in such a case? We think not too bad, for at least three reasons:

— First, one should not fall into the trap of thinking that junior creditors have collectively to raise the cash to buy out the senior creditors. Each junior creditor can act as an individual. The pro rata cash injection may be quite small (indeed, an individual need not exercise his options in full; he may choose to exercise only a fraction).

— Second, a market for options may well develop during bankruptcy process—especially for large firms. (Indeed, the bankruptcy judge might be obliged to establish such a market.) In this case, junior creditors need not come up with cash: they could simply sell their options.

— Third, even if some junior creditors are unable to raise the cash, and so are left empty-handed, it is not as if they do particularly well under current arrangements.

2. Claims Disputes

We have so far paid little attention to the question of how the amounts and seniorities of creditors' claims are established. The adjudication process is complex and forms an important part of any bankruptcy procedure, including our own. It may be argued that our time scale of three months is too short for the purpose of allocating shares and options.

There is a way of dealing with awkward claims disputes without jeopardizing our scheme. Take the claims that can be established rather easily, allocate shares and options on the basis of these claims alone, carry out the vote and emerge from bankruptcy with the contentious claims still outstanding. Once these claims have been decided, there could be an appropriate ex-post settling up—with the claimants being given securities in the post bankruptcy company. (There are several ways of doing this; one is to give new claimants the same securities that equivalent creditors elected to hold as a result of the bankruptcy process.) Notice that the people with contentious claims do not participate in the vote; but this is not too serious, since one may presume that they too would have voted for the value-maximizing bid.

3. Urgent Cases

For some kinds of businesses, the worry may be that three/four months is too long a period, not too short. This is particularly true of companies where, unless the uncertainty is resolved quickly, customers and suppliers will shift elsewhere.

There may be a case for granting the bankruptcy judge discretion to speed up the process; that is, to hold the vote sooner. The drawback is that there may be less information available at the time of the vote, and a number of claims may still be outstanding. But as we have explained above in point 2, this need not be fatal to the efficacy of our procedure.

To safeguard against abuse, it would probably be desirable to limit the bankruptcy judge's discretionary powers to cases where he had clear evidence that the normal timetable would severely jeopardize creditors' claims or the future of the business.

4. Treatment of Secured Creditors

We propose that a secured creditor's collateral be appraised. If the appraisal value more than covers the debt, then he should simply be treated as if all his debt was senior—i.e., he should be allocated shares, not options. If his debt is less than fully secured, then he is given an appropriate mix of shares and options. We do not believe that secured creditors should have the right to seize collateralized property (unless it can be shown to be unnecessary to the company's reorganization), since this could lead to an inefficient dismantlement of the company's assets through a "me-first" grab. Note that this is also the position taken by current U.S. bankruptcy law.[19]

5. Who Runs the Company during Bankruptcy?

In Chapter 11, it is usual for incumbent management to run the company during bankruptcy. An alternative is for a trustee to run the company, as in old Chapter X of the U.S. bankruptcy code. Clearly this is an important issue for any bankruptcy procedure. Notice that our procedure can be applied, regardless of how this issue is resolved.

6. Debtor-in-Possession Financing

The viability of certain kinds of bankrupt companies (such as retail stores) can crucially depend on management being granted debtor-in-possession financing, whereby suppliers' credit is placed ahead of existing (unsecured) senior debt. (This is often mentioned as an important role played by Chapter 11.) There is no reason why a comparable arrangement could not be used during the "four months" of our proposed bankruptcy process, with the judge's approval.

7. Partial Bids

We have implicitly assumed that the bids received are for the entire company. In fact, bids may be for parts of the company. The problem then arises as to how to deal with overlapping/inconsistent bids. Before a vote can be taken, a menu of coherent options has to be assembled.

We think that there is no alternative but to leave the matter of assembling "whole" bids in the hands of the judge and his or her appointed agents. It may well be necessary to solicit supplementary bids for parts of the company, in order to package a whole bid. Although this seems-messy, it should be noted that a similar difficulty is faced in a Chapter 7 proceeding: how to bundle/unbundle the assets of the company so as to maximize cash receipts.

8. Voting Procedures

Another issue concerns the voting procedure per se. If there are only two bids, it seems natural to have a simple vote between them. However, with more than two bids, there are many possibilities. Shareholders could cast their votes for their most preferred plan, with the plan with the most votes being the winner; or shareholders could rank the plans, with the plan with the highest total ranking being the winner; or there could be two rounds, where shareholders rank the plans in the first round and there is a runoff between the two highest-ranked plans in the second round. One point to note is that thorny issues in voting theory (such as the Condorcet Paradox) are less likely to arise in the present context, given that shareholders have a common objective: value maximization.

9. Small Companies

Our scheme is likely to be most valuable in the case of medium to large companies with multiple creditors, where bankruptcy raises the thorniest problems. However, most bankruptcies relate to small companies, where typically a bank is the single main creditor. Under our scheme, the bank would get all the equity (presuming that it is not bought out), and could "vote" on whether to liquidate or reorganize the company. In addition, our scheme allows junior creditors—e.g., trade creditors—to buy out the bank; trade creditors might have an incentive to vote to keep the company going because they anticipate profitable trade with the company in the future. In short, our scheme may also have a role to play in the case of small companies.

10. Workouts

Many of the problems of bankruptcy plague company workouts. There is no reason why companies could not, of their own accord, choose our scheme as a vehicle for facilitating such workouts.

7. Concluding Remarks

In conclusion, it may help to say a few more words about the philosophy underlying our procedure.

Our view is that a bankrupt company is not fundamentally different from a solvent company that is performing badly. In the case of a solvent company, shareholders elect a board of directors who are entrusted with deciding, on a day-to-day basis, whether to keep the company going, sell it, or close down. We believe that the same menu of options should be available to the claimants of a bankrupt company. In other words, we do not see why bankruptcy should automatically trigger the termination of a company via a cash sale (either as a going concern or in pieces). We see bankruptcy as an indication that something is wrong with management rather than with the company itself. The appropriate response is to allow new management teams the opportunity to replace existing management. Our scheme does this through the device of a noncash bid. Noncash bids allow for Chapter 11-type reorganization plans. However, in contrast to Chapter 11, in our scheme the company's future is decided by a simple vote—a procedure that is standard for solvent companies—

rather than by a complex bargaining procedure that is never seen outside bankruptcy.

An interesting insight into how our scheme might work is provided by the current takeover battle for Paramount. At the time of writing (January 1994), it appears that there will be two bids on the table (one by Viacom, one by QVC), and Paramount shareholders will choose between them—and the option of keeping Paramount independent—by what is in effect a vote. Each bid has a cash component and a noncash component. Thus the choice Paramount shareholders are being asked to make is analogous to the choice claimants would make in our scheme in the presence of noncash bids.

We noted in Section 3 that a good bankruptcy procedure should balance two goals: one is to achieve an ex-post efficient outcome, the other is to be neither too hard nor too soft on incumbent management (so as to encourage the appropriate behavior prior to bankruptcy). We believe that our procedure does a reasonable job of balancing these objectives. Note, however, that the procedure can be modified to be softer or harder on incumbent management (at some probable cost in terms of ex-post inefficiency), if that is thought to be desirable. For example, incumbent management could be favored by handicapping other bidders in the auction, e.g., the auction rules could state that an outside bidder has to win more than 2/3 of the votes, say. (Another way to soften the blow of bankruptcy is to give managers a golden parachute in the form of senior debt in their company.) Equally, management could be disfavored by insisting that to retain their jobs they must win more than 2/3 of the votes.

Finally, it is worth repeating a point we made in Section 4. A good bankruptcy procedure should work well both when capital markets are imperfect and when they are perfect. Our procedure has this feature. If capital markets are perfect, rational claimants will ignore noncash bids and the highest cash bid will always win the auction. Thus the outcome will be the same as in Chapter 7. For this reason, while believers in perfect-capital markets may not see the merit of our scheme relative to Chapter 7, they should not be strongly opposed to it. In contrast, those with doubts about the adequacy of capital markets should, we feel, find value in the scheme.

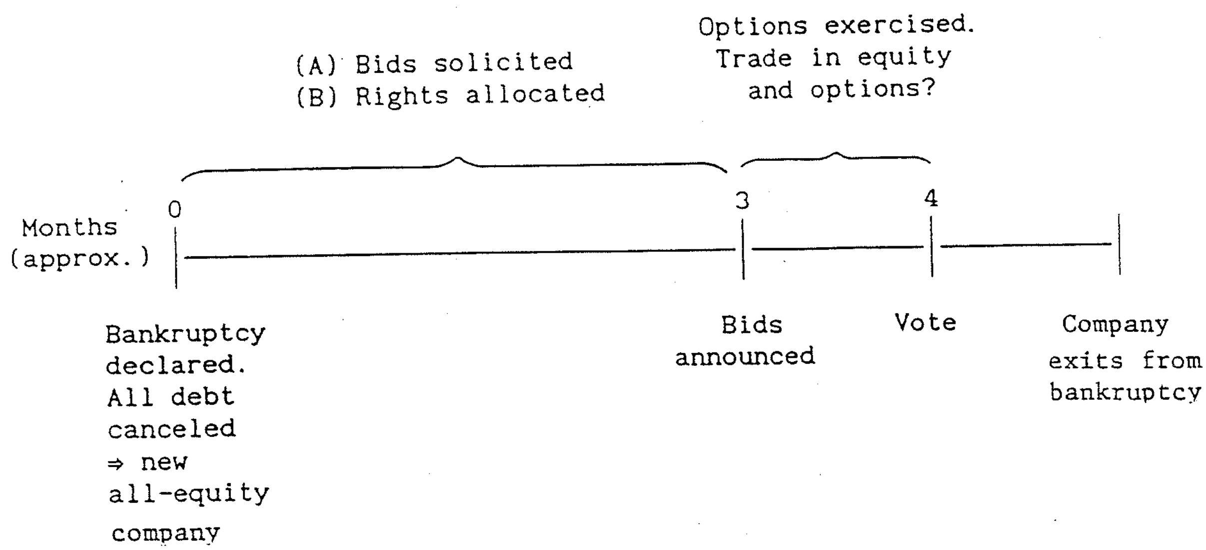

Figure 1. Time line of proposed new bankruptcy procedure.

ENDNOTES

1. An example is the case of Hungary. In the original Hungarian bankruptcy law, the debtor was obliged to announce reorganization or bankruptcy procedure after 90 days of failure to pay any of its debt. This triggered a huge wave of bankruptcies, and in mid-1993 an amendment to the bankruptcy law abolished the mandatory announcement of bankruptcy. See "Enterprise Bankruptcy in Russia: Critical Recommendations for Microeconomic Restructuring," Institute for East West Studies, New York, 1993, endnote 2.

2. See "Enterprise Bankruptcy in Russia: Critical Recommendations for Microeconomic Restructuring."

3. The notable exceptions include D. Baird, 1986, "The Uneasy Case for Corporate Reorganizations," 15 Journal of Legal Studies 127-47; L. Bebchuk, 1988, "A New Approach to Corporate Reorganizations," 101 Harvard Law Review 775-804; T. Jackson, 1986, The Logic and Limits to Bankruptcy. Boston: Little, Brown; and M. Roe, 1983, "Bankruptcy and Debt: A New Model for Corporate Reorganizations," 83 Columbia Law Review 527-602.

4. See P. Aghion, O. Hart, and J. Moore, 1992, "The Economics of Bankruptcy Reform," 8 Journal of Law, Economics & Organization 523-46. This procedure is currently under consideration in the U.K. It appears as Appendix E in "The Insolvency Act 1986: Company Voluntary Arrangements and Administrative Orders, A Consultative Document," The Insolvency Service, London, England, 1993.

5. The fundamental importance of transaction costs has been stressed by R. Coase, 1937, "The Nature of the Firm," 4 Economica 386-405; and O. E. Williamson, 1985, The Economic Institutions of Capitalism: Firms, Markets, Relational Coantracting. New York: Free Press. For a recent discussion of the difficulties of analyzing the state's role in filling in the gaps of contracts, see O. Hart, 1990, "Is 'Bounded Rationality' an Important Element of a Theory of Institutions?" 146 Journal of Institutional and Theoretical Economics, 696-702.

6. Note that we exclude "external" considerations from our definition of efficiency: that is, we assume that the important benefits and costs have been priced into the valuation of the firm. For example, we do not include such items as the external benefit from maintaining employment in the local area. Our view is that if there are external considerations, government action may indeed be warranted, but bankruptcy law is the wrong instrument for dealing with such considerations. It would be better to have a general employment

subsidy to save jobs rather than distort bankruptcy procedures in order to save bad firms.

7. See, for example, O. Hart and B. Holmstrom, 1987, "The Theory of Contracts," in T. F. Bewley (ed.), Advances in Economic Theory. Cambridge University Press.

8. The use of debt as a bonding device presumably arises because other devices to keep management in check—incentive schemes, proxy fights, and takovers—cannot always be relied upon. The stimulus for the increase in debt might have been a hostile takeover bid that management was trying to resist; or management might have been trying to raise funds from the capital market and found it necessary to issue debt in order to convince the market that management would use the funds wisely. For more on this, see Aghion et al (1992).

9. For further details, see O. Hart and J. Moore, 1993, "Debt and Seniority: An Analysis of the Role of Hard Claims in Constraining Management," LSE Financial Markets Group Discussion Paper No. 168.

10. For a recent survey of this literature, see O. Hart, 1993, "Theories of Optimal Capital Structure: A Managerial Discretion Perspective," in M. M. Blair (ed.), The Deal Decade What Takeovers and Leveraged Buyouts Mean for Corporate Governance. Washington DC: The Brookings Institution.

11. The conflict between goals (1) and (2) is analyzed in E. Berkovitch, R. Israel, and J. F. Zender, 1993, "The Design of Bankruptcy Law: A Case for Management Bias in Bankruptcy Reorganizations," mimeo, University of Michigan, School of Business and Finance.

12. We put in the qualification "presumably" because we are aware of no formal derivation of this result.

13. There is some empirical support for the idea that cash auctions are imperfect. One piece of evidence comes from the work on IPOs. This work finds significant costs of going public, some of which may be attributable to the premium charged by investment banks for bearing the risk that the offer will not be fully subscribed (see J. Ritter, 1987, "The Costs of Going Public," 19 Journal of Financial Economics 269–81). A second, more casual piece of evidence concerns workouts. When a company is financially distressed, it often tries to persuade its creditors to renegotiate their claims by lengthening the maturity of their debt or by swapping their debt for equity. The question is, why do creditors often go along with this, rather

than pushing for bankruptcy and liquidation? It would seem that the latter strategy would be rational if a cash auction could be relied on to generate maximum value. (Part of the desire for renegotiation can possibly be traced to the fact that most bankruptcies in the U.S are filed under Chapter 11, rather than Chapter 7, and creditors do not like Chapter 11. However, this does not explain workouts in other countries where Chapter 11 does not exist.)

A third—also casual—piece of evidence comes from another area of corporate finance: takeovers. Companies taking over other companies sometimes offer shareholders a mixture of cash and securities for their existing shares. (A prominent, current example of this is the contest between Viacom and QVC for the purchase of Paramount.) Noncash bids are harder to evaluate than cash bids, and so one might expect that—particularly in a contested situation—bidding companies would prefer to offer straight cash. The fact that they don't suggests that it is difficult for them to raise cash.

14. For some of the literature on these issues, see D. Cutler and L. Summers, 1988, "The Costs of Conflict Resolution and Financial Distress: Evidence from the Texaco-Pennzoil Litigation," 19 Rand Journal of Economics 157-72; S. Gilson, 1989, "Management Turnover and Financial Distress," 25 Journal of Financial Economics 241-62; S. Gilson, 1990, "Bankruptcy, Boards, Banks, and Blockholders," 27 Journal of Financial Economics 355-87; L. LoPucki and W. Whitford, 1992, "Corporate Governance in the Bankruptcy Reorganization of Large, Publicly-Held Companies," mimeo, University of Wisconsin; L. Weiss, 1990, "Bankruptcy Resolution: Direct Costs and Violation of Priority of Claims," 27 Journal of Financial Economics 285-314; and L. Weiss, 1991, "Restructuring Complications in Bankruptcy: The Eastern Airlines Bankruptcy Case," mimeo, Tulane University.

15. See, for example, Roe (1983) and Bebchuk (1988).

16. This is unless the cram-down procedure is adopted (see D. Baird and T. Jackson, 1985, Cases Problems, and Materials on Bankruptcy. Boston: Little, Brown, page 676). Under cram-down, junior claimants' voting rights are removed on the grounds that they would receive nothing in liquidation. The cram-down procedure cannot be relied upon, however; among other things, it requires an accurate judicial evaluation of the company's liquidation value.

17. The empirical work on departures from absolute priority suggests that junior claimants do indeed have enough power to force concessions from senior creditors, i.e., the problem described in Example B may well be important in practice. See J. R. Franks and W. N. Torous, 1989, "An Empirical Investigation of U.S. Firms in Reorganization," 44 The Journal of Finance 747-69. There is less formal empirical evidence on the problem described in Example A. However, practitioners frequently mention (and write about) this problem, and so it would seem to be a mistake not to take it seriously.

18. For a discussion of the bargaining problems faced by companies in financial distress, see R. Aggarwal, 1993, "The Capital Structure Holdout Problem: Why Firms in Financial Distress Remain Overleveraged," mimeo, Harvard University.

19. See Section 8C of D. Baird, 1992, The Elements of Bankruptcy. New York: Foundation.