

PUBLIC POLICY FOR THE

Private sector

Note No. 194

September 1999

Innovations in Bankruptcy—Pricing the Priority of Insolvency Claims

Chad Leechor

Following the wave of recent financial turmoil, many developing countries have learned the value of an effective bankruptcy system in deterring excessive use of debt and providing an orderly way to resolve a debt crisis. As a result, they are now reforming their bankruptcy systems, generally modeling them on those of advanced countries. But there is dissatisfaction with bankruptcy frameworks in advanced countries too. Some alternatives have been proposed. One is an options-based approach that provides an objective way of pricing creditor claims according to priority. With allowances for local conditions, this approach offers developing countries a chance to leapfrog existing bankruptcy practices and their limitations.

Effective bankruptcy systems have implications for corporate governance and for securities markets. For corporate managers and controlling shareholders, the cost of bankruptcy includes the loss of corporate control and the risk of personal liability. This threat serves as a restraint on the use of debt. In the event of default an efficient and orderly transfer of corporate control to creditors reduces the likelihood of asset stripping and looting by insiders. For creditors, available legal recourse makes it possible to extend credit at a reasonable cost. And in a cyclical downturn or in the face of financial distress, creditors are less likely to panic and liquidate securities on a massive scale.

An effective framework for bankruptcy should do the following:

- It should facilitate the discovery of the best option for the firm, including preserving the value of assets and finding any value the firm may have as a going concern.
- It should preserve the absolute priority of claims. Senior creditors should be fully paid off before junior creditors are paid.

- It should be procedurally fair and efficient, leaving little scope for strategic behavior (holdouts and tactical delays).

Existing insolvency systems seldom meet these tests. Because many give control of the firm and the reorganization agenda to a particular party, often management or senior creditors, there is little scope for the best option to emerge. Existing owners or managers are likely to propose restructuring and keep the firm in business, while creditors who have a limited stake and do not share in the gains when a firm recovers would tend to liquidate too many firms.

Existing practices generally provide little incentive to find an efficient solution. In some cases creditors and shareholders have an opportunity to vote on competing reorganization plans. All claimants carry the same weight in the voting process, regardless of their seniority. Junior claimants, hoping for a concession from more senior creditors, have an incentive to delay the process. To save time and expenses, some senior claimants may allow junior claimants a greater





share of the proceeds than warranted by the rule of absolute priority. Where the necessary majority is not achieved, the process can become protracted. In some cases judges must intervene by applying the cram-down rule, often for the sake of expediency rather than efficiency.

Consider a simple example. An insolvent firm has two classes of creditors. Senior creditors—say banks—are owed US\$1,000, and junior creditors—say trade creditors—are owed US\$600. Suppose the expected value of the firm under the best proposed liquidation plan is US\$1,000. If the bank creditors set the agenda, they would call for a quick liquidation, an efficient outcome. But the trade creditors would opt for reorganization, which would give them a small chance of partial recovery. If the trade creditors have a vote on the firm's future, the bank creditors may be unable to implement the liquidation or may have to share the proceeds with the trade creditors. The outcome would be inefficient and would violate absolute priority.

Now assume that if the firm is restructured and kept as a going concern for a year, its expected value is US\$1,300. The efficient solution would be to keep the firm in business. The bank creditors would receive full payment plus interest, and the trade creditors partial payment. The bank creditors are unlikely to want to keep the firm in business, however, since they have no stake in the upside potential. The trade creditors would correctly argue for reorganization. But since the banks have more votes, based on their larger claims, the liquidation plan may prevail, although the banks might have to share the proceeds with the trade creditors. Once again, the outcome protects neither efficiency nor absolute priority.

A new approach

In recent years bankruptcy specialists have come up with new ideas to address the concerns. One approach is to use prepackaged bankruptcy procedures like those of the United States; this approach saves time and money for all partici-

pants, but does not resolve the underlying conflicts of interest.

Another promising new approach seeks to realign the interests of the claimants so that they have an incentive to choose the value-maximizing plan (Bebchuk 1988; Aghion, Hart, and Moore 1995). A key innovation of this approach is its procedure for pricing claims so that absolute priority is protected.

Some aspects of this approach resemble existing bankruptcy procedures. To begin with, the court would grant a stay of, say, three months on all outstanding claims. The court would also appoint an administrator responsible for drawing up a list of all claims against the firm and soliciting reorganization plans from participants and the general public. These steps are much like existing practices, though somewhat more open. The new features deal with how to decide on the future of the firm and how to preserve the priority of claims.

After all claims are registered, the administrator would determine relative seniority among them according to established norms. The administrator would also issue, say, 100 reorganization rights, which would entitle the holders to vote on the reorganization plan. Initially the administrator would give the claimants call options to buy a share of the rights proportional to their claims. These calls would have different strike prices, depending on the seniority of the claims. In addition, each claimant would have an obligation to give up his or her reorganization rights if the next class of claimants choose to exercise their options. Thus the options would have the characteristics of a call spread (box 1).

The strike prices would play a crucial part in protecting the priority of claims. The most senior creditors would have a strike price of zero, since they would have the first claim on the firm's assets. The next class of creditors would have a strike price set so that the proceeds would be sufficient to pay off more senior debt. In general, the strike price would rise as the seniority of claims declines. As residual claimants, the share-

BOX 1 CALL IT A SPREAD

Options are simple once you know a few basic rules. A *call option* gives you the right to buy the underlying security, say a common stock, at a stipulated price—the *strike price*, or *strike*. When the stock price rises, the value of your call goes up, and when it falls, the value goes down. Owning a call is therefore similar to owning a stock. If you have sold, or shorted, a call, you have an obligation to sell the stock. With a short call, you gain when the stock price falls and lose when it goes up. The strike price of the call determines what price you pay or receive for the stock.

Unlike stocks, options have an expiration date. If you own an American call, you can exercise your right to buy the underlying stock at any time before its expiration. If you have sold a call, you may be assigned (or compelled) to deliver the stock at any time. A European call, however, allows the holder to exercise his or her right only at its expiration.

Call options have different strike prices. Suppose Microsoft stock is trading at US\$100 a share. Active calls on Microsoft might

have strike prices of US\$95, US\$100, or US\$105. A Microsoft call with a strike of US\$95 is worth more than a call with a strike of US\$100 or US\$105.

You can buy a call option with one strike and sell a call on the same security with another strike. This position is a *call spread*.

Suppose you buy a Microsoft call at a US\$95 strike for, say, US\$6 and at the same time sell a Microsoft call with a US\$100 strike for, say, US\$3. You then own a call spread at a net price of US\$3. If the stock price is above US\$100 when the options expire, the call you own lets you buy a share of Microsoft at US\$95. But you also have to sell a share of Microsoft at US\$100 because of the call you sold. Your revenue is US\$5

and your profit US\$2. If the stock price is below US\$95 when the options expire, you lose your investment of US\$3.

Call spreads provide a low-cost and flexible position for securities trading and are very popular among professional options traders. They could also be a powerful tool for pricing creditors' claims in an insolvency proceeding.

On September 30, 1999, this call option might have a value of US\$10

Symbol: *MSQ = GT*

Underlying security: *Microsoft Corporation*

Strike price: *US\$95*

Expiration date: *12/17/1999*

Options exchange: *Chicago Board*

holders would receive options with the highest strike price.

Consider an example based on the previous one. The banks (owed US\$1,000) would have the right to get the reorganization rights for free, and an obligation to sell them to the trade creditors at US\$10 a piece. Selling 100 rights at US\$10 a piece would produce US\$1,000, enough to pay off the bank creditors in full. The trade creditors would have the right to buy the 100 reorganization rights at US\$10 a piece, and an obligation to sell them at US\$16 a piece to the next class of claimants, the shareholders. The proceeds from that sale (US\$1,600) would pay off all the debt.

Trading in the options on reorganization rights would be permitted before the stay period expires. The original claimants could sell options to any interested buyers, including those who have submitted a proposed reorganization plan. The value of these options would depend on the perceived value of the firm as well as the strike price of each option. For example, if the firm is perceived to be worth US\$500, the trade creditors' option, with a strike price of US\$10 to get 1 percent of the firm, would have little or no value. But if the expected value of the firm is US\$2,000,

even shareholders' options, with a strike price of US\$16, would have considerable value.

At the end of the trading period the 100 reorganization rights would go to those who exercise their options, and the party or coalition holding a majority of the rights (fifty-one) would control the firm's future. The reorganization plan selected by those holding reorganization rights might lead to a liquidation or a restructuring of the firm. The holders of the rights might become the new owners of the firm or might sell the rights to the party that submitted the winning proposal. As the reorganization plan is implemented, the creditors would be paid through the sale of their reorganization rights and the firm would emerge from bankruptcy.

Where to use the new approach?

The main advantage of this proposed approach is the opportunity it creates to discover and implement the best possible plan for the insolvent firm. The new owners choose the plan, not parties with narrow or conflicting goals. Equally important, the approach preserves absolute priority. No claimants receive a payment until those with more seniority are paid in full.



In addition, the approach provides no incentive for holdouts, a particularly difficult problem under existing insolvency practices. Junior claimants, such as shareholders or unsecured creditors, have no say in the firm's future unless they are willing to pay off more senior creditors. At the same time the firm is not held hostage to senior creditors with a limited stake. These senior creditors must give up their control if a party with a better idea pays them off by exercising the call options. Arbitrary decisions, like a cram-down or forced continuation of a nonviable business, become unnecessary.

But the approach is not universally applicable. Its design presupposes a well-functioning capital market and a well-established legal system, features lacking in most developing countries. Changes in the design are generally needed to suit local conditions.

Without a well-functioning capital market, the prospective buyer of the insolvent firm may lack access to the liquidity needed to achieve control. The financing method, a part of the proposed reorganization plan, typically includes cash needed to pay off creditors. If some of the final holders of reorganization rights are willing to hold the securities issued under the winning reorganization plan, the need for external financing may be mitigated.

Another possible constraint is lack of familiarity with options. Options markets tend to develop well after securities markets do. But a full-fledged options market is not essential. What is needed is an adequate understanding of the basic rules among the participants. An important variant of this approach proposes using auctions in place of options in pricing and allocating reorganization rights (Hart and others 1997). Auctions have the appeal of being widely understood. But they can replace only the trading in options. The basic pricing rules and the obligation to give up the reorganization rights at the stipulated prices remain necessary.

Even where these constraints do not exist, the options-based approach may have little rele-

vance in many cases. Where there is a consensus that the firm's value is significantly less than its outstanding debt, the procedure should move immediately to liquidation. There is no need to allocate and trade options. Where the value of secured debt is large relative to total claims, the approach also might not apply. Secured creditors have a contractual right to seize the collateral and may be uninterested in the options. But if the value of the collateral is less than the debt, the secured creditors may want options to cover the shortfall.

Look before you leap

The options-based approach to bankruptcy has strong intellectual appeal. But while well known to specialists, these new ideas have not yet been implemented. The U.K. Treasury has received a proposal for bankruptcy reform based on this approach and has commissioned a detailed review. The Mexican government has received a similar proposal but has not yet made a decision on it. By adopting this approach, adapted to local circumstances, a developing country that lacks a viable bankruptcy framework may be able to leapfrog existing bankruptcy practices and their well-documented shortcomings.

References

- Aghion, P., O. Hart, and J. Moore. 1995. "Insolvency Reform in the UK: A Revised Proposal." *Insolvency Law and Practice* 11:67-74.
- Bebchuk, L.A. 1988. "A New Approach to Corporate Reorganization." *Harvard Law Review* 101:775-804.
- G-22 Working Party. 1998. "Recommendations on Managing Financial Crises." International Monetary Fund, Washington, D.C.
- Hart, O., R.L.P. Drago, F. Lopez-de-Silanes, and J. Moore. 1997. *A New Bankruptcy Procedure That Uses Multiple Auctions*. NBER Working Paper 6278. Cambridge, Mass.: National Bureau of Economic Research.
- Hotchkiss, E.S. 1995. "Post-Bankruptcy Performance and Management Turnover." *Journal of Finance* 50:3-21.
- Weiss, L.A. 1990. "Bankruptcy Resolution: Direct Costs and Violation of Absolute Priority." *Journal of Financial Economics* 27:285-314.
- Weiss, L.A., and K.H. Wruck. 1998. "Information Problems, Conflicts of Interest and Asset Stripping: Chapter 11's Failure in the Case of Eastern Airlines." *Journal of Financial Economics* 48:55-97.

*Chad Leechor (cleechor@worldbank.org),
Private Sector Development Department,
Business Environment Unit*

Viewpoint is an open forum intended to encourage dissemination of and debate on ideas, innovations, and best practices for expanding the private sector. The views published are those of the authors and should not be attributed to the World Bank or any of its affiliated organizations. Nor do any of the conclusions represent official policy of the World Bank or of its Executive Directors or the countries they represent.

To order additional copies please call 202 458 1111 or contact Suzanne Smith, editor, Room F11K 208, The World Bank, 1818 H Street, NW, Washington, D.C. 20433, or Internet address ssmith7@worldbank.org. The series is also available on line (www.worldbank.org/html/fpd/notes/).

♻️ Printed on recycled paper.