chapter 24

Bankruptcy, Reorganization, and Liquidation

In June 1993, Continental Airlines performed, for the second time, a feat few companies accomplish even once—it emerged from bankruptcy. When Continental Airlines Holdings Inc., along with 53 subsidiaries, filed for bankruptcy court protection in December 1990, it owed $3.96 billion. When it emerged from bankruptcy in 1993, the firm had only four subsidiaries, it had shaved its debt to $1.8 billion, and it had $635 million in cash. In addition, Continental instituted a new strategy that focused on transoceanic service to Europe and Asia while cutting back on short-haul flights.

While under court protection—which means that the Bankruptcy Court prevented Continental's creditors from seizing the assets securing its debt or even from collecting interest due on those debts—the company was able to take actions unavailable to its nonbankrupt competitors. In particular, it was able to abrogate its labor contracts and lower its wages. This action, along with not having to pay interest on its debt, permitted it to offer very low fares and still generate positive cash flows.

However, the operating and financing advantages provided by the bankruptcy were costly to some participants. The company's reorganization plan called for paying creditors only a fraction of what they were owed. Creditors were also required to take some stock in the "new" Continental. In addition, 55% of the equity went to Air Canada and to Air Partners, a Fort Worth investor group, which, between them, poured $450 million of new cash into the airline. As often happens, all of the equity went to creditors and new investors—the firm's original stockholders were totally wiped out.

Continental is one of the success stories of bankruptcy—the corporation itself has survived, its customers are receiving good service, its employees kept their jobs, its creditors got more than they would have received in a liquidation, and its new equity investors have made money. As we discuss in the chapter, though, other firms facing bankruptcy have not fared so well. The decisions that firms' managers, creditors, and other stakeholders make before and during bankruptcy proceedings determine the final results.

As you go through the chapter, think about the decisions that Continental's managers and creditors had to make regarding bankruptcy and reorganization, and the effects the firm's bankruptcy has had on all of its stakeholders as well as on competing airlines. It will be interesting to see whether the airlines in bankruptcy during 2006, including United, Delta, and Northwest, are able to emulate Continental and emerge as competitive companies.

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The textbook's Web site contains an *Excel* file that will guide you through the chapter's calculations. The file for this chapter is ***FM12 Ch 24 Tool Kit.xls,*** and we encourage you to open the file and follow along as you read the chapter.

Thus far, we have dealt with issues faced by growing, successful enterprises. However, many firms encounter financial difficulties, and some, including such big names as Refco, Calpine Corporation, Delta Air Lines, and Dana Corporation, are forced into bankruptcy. When a firm encounters financial distress, its managers must try to ward off a total collapse and thereby minimize losses. The ability to hang on during rough times often means the difference between forced liquidation versus rehabilitation and eventual success. An understanding of bankruptcy is also critical to the executives of healthy firms, because they must know the best actions to take when their customers or suppliers face the threat of bankruptcy.

24.1 Financial Distress and Its Consequences

We begin with some background on financial distress and its consequences.[1]

Causes of Business Failure

A Dun & Bradstreet study examined business failure causes, as shown in Table 24-1. Economic factors include industry weakness and poor location. Financial factors include too much debt and insufficient capital. The importance of the different factors varies over time, depending on such things as the state of the economy and the level of interest rates. Also, most business failures occur because a number of factors combine to make the business unsustainable. Further, case studies show that financial difficulties are usually the result of a series of errors, misjudgments, and interrelated weaknesses that can be attributed directly or indirectly to management. As you might guess, signs of potential financial distress are generally evident in a ratio analysis long before the firm actually fails, and researchers use ratio analysis to predict the probability that a given firm will go bankrupt.

The Business Failure Record

Although bankruptcy is more frequent among smaller firms, it is clear from Table 24-2 that large firms are not immune. However, some firms might be too

Table 24-1
Causes of Business Failure

Cause of Failure	Percentage of Total
Economic factors	37.1%
Financial factors	47.3
Neglect, disaster, and fraud	14.0
Other factors	1.6
	100.0%

Source: Dun & Bradstreet Inc., *Business Failure Record*, 1994.

[1]Much of the current academic work in the area of financial distress and bankruptcy is based on writings by Edward I. Altman. For a summary of his work and that of others, see Edward I. Altman, *Bankruptcy and Distressed Restructuring: Analytical Issues and Investment Opportunities* (Frederick, MD: Beard Group, 1999).

Table 24-2
The Ten Largest Bankruptcies since 1980 (Billions of Dollars)

Company	Business	Assets	Date
Worldcom, Inc.	Telecommunications	$103.9	July 21, 2002
Enron Corp.	Energy trading	63.4	December 2, 2001
Conseco, Inc.	Insurance, finance	61.4	December 18, 2002
Texaco, Inc.	Energy	35.9	April 12, 1987
Refco, Inc.	Finance	33.3	October 17, 2005
Global Crossing Ltd.	Telecommunications	30.2	January 28, 2002
Pacific Gas and Electric Co.	Energy	29.8	April 6, 2001
Calpine Corporation	Energy	27.2	December 20, 2005
UAL Corp.	Airline	25.2	December 9, 2002
Delta Air Lines, Inc.	Airline	21.8	September 14, 2005

Source: BankruptcyData.com, a division of New Generation Research, September 2006.

big or too important to be allowed to fail, and mergers or governmental intervention are often used as an alternative to outright failure and liquidation. The decision to give federal aid to Chrysler (now a part of DaimlerChrysler AG) in the 1980s is an excellent illustration. Also, in recent years federal regulators have arranged the absorption of many "problem" financial institutions by financially sound institutions. In addition, several U.S. government agencies, principally the Defense Department, were able to bail out Lockheed when it otherwise would have failed, and the "shotgun marriage" of Douglas Aircraft and McDonnell was designed to prevent Douglas's failure. Another example of intervention is that of Merrill Lynch taking over the brokerage firm Goodbody & Company, which would otherwise have gone bankrupt and would have frozen the accounts of its 225,000 customers while a bankruptcy settlement was being worked out. Goodbody's failure would have panicked investors across the country, so New York Stock Exchange member firms put up $30 million as an inducement to get Merrill Lynch to keep Goodbody from folding. Similar instances in other industries could also be cited.

Why do government and industry seek to avoid failure among larger firms? In the case of banks, the main reason is to prevent an erosion of confidence and a consequent run on the banks. With Lockheed and Douglas, the Defense Department wanted not only to maintain viable suppliers but also to avoid disrupting local communities. With Chrysler, the government wanted to preserve jobs as well as a competitor in the U.S. auto industry. Even when the public interest is not at stake, the fact that bankruptcy is a very expensive process gives private industry strong incentives to avoid outright bankruptcy. The costs and complexities of a formal bankruptcy are discussed in subsequent sections of this chapter, after we examine some less formal and less expensive procedures.

SELF-TEST

What are the major causes of business failure?
Do business failures occur evenly over time?
Which size of firm, large or small, is most prone to business failure? Why?

24.2 Issues Facing a Firm in Financial Distress

Financial distress begins when a firm is unable to meet scheduled payments or when cash flow projections indicate that it will soon be unable to do so. As the situation develops, these central issues arise:

1. Is the firm's inability to meet scheduled debt payments a temporary cash flow problem, or is it a permanent problem caused by asset values having fallen below debt obligations?
2. If the problem is a temporary one, then an agreement with creditors that gives the firm time to recover and to satisfy everyone may be worked out. However, if basic long-run asset values have truly declined, then economic losses have occurred. In this event, who should bear the losses, and who should get whatever value remains?
3. Is the company "worth more dead than alive?" That is, would the business be more valuable if it were maintained and continued in operation or if it were liquidated and sold off in pieces?
4. Should the firm file for protection under Chapter 11 of the Bankruptcy Act, or should it try to use informal procedures? (Both reorganization and liquidation can be accomplished either informally or under the direction of a bankruptcy court.)
5. Who should control the firm while it is being liquidated or rehabilitated? Should the existing management be left in charge, or should a trustee be placed in charge of operations?

In the remainder of the chapter, we discuss these issues.

SELF-TEST

What five major issues must be addressed when a firm faces financial distress?

24.3 Settlements without Going through Formal Bankruptcy

When a firm experiences financial distress, its managers and creditors must decide whether the problem is temporary and the firm is really financially viable, or whether a permanent problem exists that endangers the firm's life. Then, the parties must decide whether to try to solve the problem informally or under the direction of a bankruptcy court. Because of costs associated with formal bankruptcy—including the disruptions that occur when a firm's customers, suppliers, and employees learn that it has filed under the Bankruptcy Act—it is desirable, if possible, to reorganize (or liquidate) outside of formal bankruptcy. We first discuss informal settlement procedures, then procedures under a formal bankruptcy.

Informal Reorganization

In the case of an economically sound company whose financial difficulties appear to be temporary, creditors are generally willing to work with the company to help it recover and reestablish itself on a sound financial basis. Such voluntary plans, commonly called **workouts,** usually require a **restructuring** of the firm's debt, because current cash flows are insufficient to service the existing debt. Restructuring typically involves extension and/or composition. In an **extension,** creditors postpone the dates of required interest or principal payments, or both. In a **composition,** creditors voluntarily reduce their fixed claims on the debtor by accepting a lower principal amount, by reducing the interest rate on the debt, by taking equity in exchange for debt, or by some combination of these changes.

A debt restructuring begins with a meeting between the failing firm's managers and creditors. The creditors appoint a committee consisting of four or five of the largest creditors, plus one or two of the smaller ones. This meeting is often arranged and conducted by an **adjustment bureau** associated with and run by a local credit managers' association.[2] The first step is for management to draw up a list of creditors, with amounts of debt owed. There are typically different classes of debt, ranging from first-mortgage holders to unsecured creditors. Next, the company develops information showing the value of the firm under different scenarios. Typically, one scenario is going out of business, selling off the assets, and then distributing the proceeds to the various creditors in accordance with the priority of their claims, with any surplus going to the common stockholders. The company may hire an appraiser to get an appraisal of the value of the firm's property to use as a basis for this scenario. Other scenarios include continued operations, frequently with some improvements in capital equipment, marketing, and perhaps some management changes.

This information is then shared with the firm's bankers and other creditors. Frequently, it can be demonstrated that the firm's debts exceed its liquidating value, and it can also be shown that legal fees and other costs associated with a formal liquidation under federal bankruptcy procedures would materially lower the net proceeds available to creditors. Further, it generally takes at least a year, and often several years, to resolve matters in a formal proceeding, so the present value of the eventual proceeds will be lower still. This information, when presented in a credible manner, often convinces creditors that they would be better off accepting something less than the full amount of their claims rather than holding out for the full face amount. If management and the major creditors agree that the problems can probably be resolved, then a more formal plan is drafted and presented to all the creditors, along with the reasons creditors should be willing to compromise on their claims.

In developing the reorganization plan, creditors prefer an extension because it promises eventual payment in full. In some cases, creditors may agree not only to postpone the date of payment but also to subordinate existing claims to vendors who are willing to extend new credit during the workout period. Similarly, creditors may agree to accept a lower interest rate on loans during the extension, perhaps in exchange for a pledge of collateral. Because of the sacrifices involved, the creditors must have faith that the debtor firm will be able to solve its problems.

In a composition, creditors agree to reduce their claims. Typically, creditors receive cash and/or new securities that have a combined market value that is less than the amounts owed them. The cash and securities, which might have a value of only 10% of the original claim, are taken as full settlement of the original debt. Bargaining will take place between the debtor and the creditors over the savings

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[2]There is a nationwide group called the National Association of Credit Management that consists of bankers and industrial companies' credit managers. This group sponsors research on credit policy and problems, conducts seminars on credit management, and operates local chapters in cities throughout the nation. These local chapters frequently operate adjustment bureaus.

that result from avoiding the costs of legal bankruptcy: administrative costs, legal fees, investigative costs, and so on. In addition to escaping such costs, the debtor gains because the stigma of bankruptcy may be avoided. As a result, the debtor may be induced to part with most of the savings from avoiding formal bankruptcy.

Often, the bargaining process will result in a restructuring that involves both extension and composition. For example, the settlement may provide for a cash payment of 25% of the debt immediately, plus a new note promising six future installments of 10% each, for a total payment of 85%.

Voluntary settlements are both informal and simple, and also relatively inexpensive because legal and administrative expenses are held to a minimum. Thus, voluntary procedures generally result in the largest return to creditors. Although creditors do not obtain immediate payment and may even have to accept less than is owed them, they generally recover more money, and sooner, than if the firm were to file for bankruptcy.

In recent years, one factor that has motivated some creditors, especially banks and insurance companies, to agree to voluntary restructurings is the fact that restructurings can sometimes help creditors avoid showing a loss. Thus, a bank that is "in trouble" with its regulators over weak capital ratios may agree to extend further loans that are used to pay the interest on earlier loans in order to keep the bank from having to write down the value of its earlier loans. This particular type of restructuring depends on (1) the willingness of the regulators to go along with the process, and (2) whether the bank is likely to recover more in the end by restructuring the debt than by forcing the borrower into bankruptcy immediately.

We should point out that informal voluntary settlements are not reserved for small firms. International Harvester (now Navistar International) avoided formal bankruptcy proceedings by getting its creditors to agree to restructure more than $3.5 billion of debt. Likewise, Chrysler's creditors accepted both an extension and a composition to help it through its bad years in the late 1970s before it merged with Daimler-Benz. The biggest problem with informal reorganizations is getting all the parties to agree to the voluntary plan. This problem, called the **holdout problem,** is discussed in a later section.

Informal Liquidation

When it is obvious that a firm is more valuable dead than alive, informal procedures can also be used to **liquidate** the firm. **Assignment** is an informal procedure for liquidating a firm, and it usually yields creditors a larger amount than they would get in a formal bankruptcy liquidation. However, assignments are feasible only if the firm is small and its affairs are not too complex. An assignment calls for title to the debtor's assets to be transferred to a third party, known as an **assignee** or **trustee.** The assignee is instructed to liquidate the assets through a private sale or public auction and then to distribute the proceeds among the creditors on a pro rata basis. The assignment does not automatically discharge the debtor's obligations. However, the debtor may have the assignee write on the check to each creditor the requisite legal language to make endorsement of the check acknowledgment of full settlement of the claim.

Assignment has some advantages over liquidation in federal bankruptcy courts in terms of time, legal formality, and expense. The assignee has more flexibility in disposing of property than does a federal bankruptcy trustee, so action can be taken sooner, before inventory becomes obsolete or machinery rusts. Also, because the assignee is often familiar with the debtor's business, better results may be achieved. However, an assignment does not automatically result in a full and legal discharge of all the debtor's liabilities, nor does it protect the creditors against fraud. Both of these problems can be reduced by formal liquidation in bankruptcy, which we discuss in a later section.

SELF-TEST

Define the following terms: (1) restructuring, (2) extension, (3) composition, (4) assignment, and (5) assignee (trustee).

What are the advantages of liquidation by assignment versus a formal bankruptcy liquidation?

24.4 Federal Bankruptcy Law

U.S. bankruptcy laws were first enacted in 1898. They were modified substantially in 1938, then they were changed substantially again in 1978, and some fine-tuning was done in 1986. In 2005, Congress further modified the bankruptcy code, speeding up bankruptcy proceedings for companies and making it more difficult for consumers to take advantage of provisions that can wipe out certain debts. The primary purpose of the bankruptcy law is to avoid having firms that are worth more as ongoing concerns be put out of business by individual creditors who could force liquidation without regard to the effects on other parties.

Currently, our bankruptcy law consists of eight odd-numbered chapters, plus one even-numbered chapter. (The old even-numbered chapters were deleted when the act was revised in 1978.) Chapters 1, 3, and 5 contain general provisions applicable to the other chapters. **Chapter 11,** which deals with business reorganization, is the most important section from a financial management viewpoint. **Chapter 7** details the procedures to be followed when liquidating a firm; generally, Chapter 7 does not come into play unless it has been determined that reorganization under Chapter 11 is not feasible. Chapter 9 deals with financially distressed municipalities; Chapter 12 covers special procedures for family-owned farms; Chapter 13 covers the adjustment of debts for "individuals with regular income;" and Chapter 15 sets up a system of trustees who help administer proceedings under the act.

A firm is officially bankrupt when it files for bankruptcy with a federal court. When you read that a company such as Southland (the owner of the 7-Eleven convenience store chain) has "filed for court protection under Chapter 11," this means that the company is attempting to reorganize under the supervision of a bankruptcy court. Formal bankruptcy proceedings are designed to protect both the firm and its creditors. On the one hand, if the problem is temporary insolvency, then the firm may use bankruptcy proceedings to gain time to solve its cash flow problems without asset seizure by its creditors. On the other hand, if the firm is truly bankrupt in the sense that liabilities exceed assets, the creditors can use bankruptcy procedures to stop the firm's managers from continuing to operate, lose more money, and thus deplete assets which should go to creditors.

Bankruptcy law is flexible in that it provides scope for negotiations between a company, its creditors, its labor force, and its stockholders. A case is opened by filing a petition with one of the 291 bankruptcy courts serving 90 judicial districts. The petition may be either **voluntary** or **involuntary;** that is, it may be filed either by the firm's management or by its creditors. After a filing, a committee of unsecured creditors is then appointed by the Office of the U.S. Trustee to negotiate with management for a reorganization, which may include the restructuring of debt. Under Chapter 11, a trustee will be appointed to take over the company if the court deems current management incompetent or if fraud is suspected. Normally, though, the existing management retains control. If no fair and feasible reorganization can be worked out, the bankruptcy judge will order that the firm be liquidated under procedures spelled out in Chapter 7 of the Bankruptcy Act, in which case a trustee will always be appointed.[3]

SELF-TEST

Define the following terms: (1) bankruptcy law, (2) Chapter 11, (3) Chapter 7, (4) trustee, (5) voluntary bankruptcy, and (6) involuntary bankruptcy.

How does a firm formally declare bankruptcy?

24.5 Reorganization in Bankruptcy

It might appear that most reorganizations should be handled informally because informal reorganizations are faster and less costly than formal bankruptcy. However, two problems often arise to stymie informal reorganizations and thus force debtors into Chapter 11 bankruptcy—the common pool problem and the holdout problem.[4]

To illustrate these problems, consider a firm that is having financial difficulties. It is worth \$9 million as a going concern (this is the present value of its expected future operating cash flows) but only \$7 million if it is liquidated. The firm's debt totals \$10 million at face value—ten creditors with equal priority each have a \$1 million claim. Now suppose the firm's liquidity deteriorates to the point where it defaults on one of its loans. The holder of that loan has the contractual right to *accelerate* the claim, which means the creditor can *foreclose* on the loan and demand payment of the entire balance. Further, since most debt agreements have *cross-default provisions*, defaulting on one loan effectively places all loans in default.

The firm's market value is less than the \$10 million face value of debt, regardless of whether it remains in business or liquidates. Therefore, it would be impossible to pay off all of the creditors in full. However, the creditors in total would be better off if the firm is not shut down, because they could ultimately recover \$9 million if the firm remains in business but only \$7 million if it is liquidated. The problem here, which is called the **common pool problem,** is that, in the absence of protection under the Bankruptcy Act, individual creditors would have an incentive to foreclose on the firm even though it is worth more as an ongoing concern.

An individual creditor would have the incentive to foreclose because it could then force the firm to liquidate a portion of its assets to pay off that particular creditor's \$1 million claim in full. The payment to that creditor would probably require the liquidation of vital assets, which might cause a shutdown of the firm and thus lead to a liquidation. Therefore, the value of the remaining creditors' claims would decline. Of course, all the creditors would recognize the gains to be had from this strategy, so they would storm the debtor with foreclosure notices. Even those creditors who understand the merits of keeping the firm alive would be forced to foreclose, because the foreclosures of the other creditors would reduce

[3]For a discussion of European bankruptcy laws, see Kevin M. J. Kaiser, "European Bankruptcy Laws: Implications for Corporations Facing Financial Distress," *Financial Management*, Autumn 1996, pp. 67–85.

[4]The issues discussed in this section are covered in more detail in Thomas H. Jackson, *The Logic and Limits of Bankruptcy Law* (Frederick, MD: Beard Group, 2001). Also, see Stuart C. Gilson, "Managing Default: Some Evidence on How Firms Choose between Workouts and Chapter 11," *Journal of Applied Corporate Finance*, Summer 1991, pp. 62–70; David T. Brown, "Claimholder Incentive Conflicts in Reorganization: The Role of Bankruptcy Law," *Review of Financial Studies*, 1989, pp. 109–123; and Yehning Chen, J. Fred Weston, and Edward I. Altman, "Financial Distress and Restructuring Models," *Financial Management*, Summer 1995, pp. 57–75.

the payoff to those who do not. In our hypothetical example, if seven creditors foreclosed and forced liquidation, they would be paid in full, and the remaining three creditors would receive nothing.

With many creditors, as soon as a firm defaults on one loan, there is the potential for a disruptive flood of foreclosures that would make the creditors collectively worse off. In our example, the creditors would lose $9 − $7 = $2 million in value if a flood of foreclosures were to force the firm to liquidate. If the firm had only one creditor, say, a single bank loan, the common pool problem would not exist. If a bank had loaned the company $10 million, it would not force liquidation to get $7 million when it could keep the firm alive and eventually realize $9 million.

Chapter 11 of the Bankruptcy Act provides a solution to the common pool problem through its **automatic stay** provision. *An automatic stay, which is forced on all creditors in a bankruptcy, limits the ability of creditors to foreclose to collect their individual claims*. However, the creditors can collectively foreclose on the debtor and force liquidation.

While bankruptcy gives the firm a chance to work out its problems without the threat of creditor foreclosure, management does not have a completely free reign over the firm's assets. First, bankruptcy law requires the debtor firm to request permission from the court to take many actions, and the law also gives creditors the right to petition the bankruptcy court to block almost any action the firm might take while in bankruptcy. Second, **fraudulent conveyance** statutes, which are part of debtor-creditor law, protect creditors from unjustified transfers of property by a firm in financial distress.

To illustrate fraudulent conveyance, suppose a holding company is contemplating bankruptcy protection for one of its subsidiaries. The holding company might be tempted to sell some or all of the subsidiary's assets to itself (the parent company) for less than the true market value. This transaction would reduce the value of the subsidiary by the difference between the true market value of its assets and the amount paid, and the loss would be borne primarily by the subsidiary's creditors. Such a transaction would be voided by the courts as a fraudulent conveyance. Note also that transactions that favor one creditor at the expense of another can be voided under the same law. For example, a transaction in which an asset is sold and the proceeds are used to pay one creditor in full at the expense of other creditors could be voided. Thus, fraudulent conveyance laws also protect creditors from each other.[5]

The second problem that the bankruptcy law mitigates is the holdout problem. To illustrate this problem, consider again our example with ten creditors owed $1 million each but with assets worth only $9 million. The goal of the firm is to avoid liquidation by remedying the default. In an informal workout, this would require a reorganization plan that is agreed to by each of the ten creditors. Suppose the firm offers each creditor new debt with a face value of $850,000 in exchange for the old $1,000,000 face value debt. If each of the creditors accepted the offer, the firm could be successfully reorganized. The reorganization would leave the equity holders with some value—the market value of the equity would be $9,000,000 − 10($850,000) = $500,000. Further, the creditors would have claims worth $8.5 million, much more than the $7 million value of their claims in liquidation.

Although such an exchange offer seems to benefit all parties, it might well not be accepted by the creditors. Here's why: Suppose seven of the ten creditors tender their bonds; thus, seven creditors each now have claims with a face value of

[5]The bankruptcy code requires that all transactions undertaken by the firm in the 6 months prior to a bankruptcy filing be reviewed by the court for fraudulent conveyance, and the review can go back as far as 3 years.

$850,000 each, or $5,950,000 in total, while the three creditors that did not tender their bonds each still have a claim with a face value of $1 million. The total face value of the debt at this point is $8,950,000, which is less than the $9 million value of the firm. In this situation, the three holdout creditors would receive the full face value of their debt. However, this probably would not happen, because (1) all of the creditors would be sophisticated enough to realize this could happen, and (2) each creditor would want to be one of the three holdouts that gets paid in full. Thus, it is likely that none of the creditors would accept the offer. The holdout problem makes it difficult to restructure the firm's debts. Again, if the firm had a single creditor, there would be no holdout problem.

The holdout problem is mitigated in bankruptcy proceedings by the bankruptcy court's ability to lump creditors into classes. Each class is considered to have accepted a reorganization plan if 2/3 of the amount of debt and 1/2 the number of claimants vote for the plan, and the plan will be approved by the court if it is deemed to be "fair and equitable" to the dissenting parties. This procedure, in which the court mandates a reorganization plan in spite of dissent, is called a **cramdown,** because the court crams the plan down the throats of the dissenters. The ability of the court to force acceptance of a reorganization plan greatly reduces the incentive for creditors to hold out. Thus, in our example, if the reorganization plan offered each creditor a new claim worth $850,000 in face value, along with information that each creditor would probably receive only $700,000 under the liquidation alternative, it would have a good chance of success.

It is easier for a firm with few creditors to informally reorganize than it is for a firm with many creditors. A 1990 study examined 169 publicly traded firms that experienced severe financial distress from 1978 to 1987.[6] About half of the firms reorganized without filing for bankruptcy, while the other half were forced to reorganize in bankruptcy. The firms that reorganized without filing for bankruptcy owed most of their debt to a few banks, and they had fewer creditors. Generally, bank debt can be reorganized outside of bankruptcy, but a publicly traded bond issue held by thousands of individual bondholders makes reorganization difficult.

Filing for bankruptcy under Chapter 11 has several other features that help the bankrupt firm:

1. Interest and principal payments, including interest on delayed payments, may be delayed without penalty until a reorganization plan is approved, and the plan itself may call for even further delays. This permits cash generated from operations to be used to sustain operations rather than be paid to creditors.
2. The firm is permitted to issue **debtor-in-possession (DIP) financing.** DIP financing enhances the ability of the firm to borrow funds for short-term liquidity purposes, because such loans are, under the law, senior to all previous unsecured debt.
3. The debtor firm's managers are given the exclusive right for 120 days after filing for bankruptcy protection to submit a reorganization plan, plus another 60 days to obtain agreement on the plan from the affected parties. The court may also extend these dates up to 18 months. After management's first right to submit a plan has expired, any party to the proceedings may propose its own reorganization plan.

[6]See Stuart Gilson, Kose John, and Larry Lang, "Troubled Debt Restructurings: An Empirical Study of Private Reorganization of Firms in Default," *Journal of Financial Economics*, October 1990, pp. 315–354.

Under the early bankruptcy laws, most formal reorganization plans were guided by the **absolute priority doctrine.**[7] This doctrine holds that creditors should be compensated for their claims in a rigid hierarchical order, and that senior claims must be paid in full before junior claims can receive even a dime. If there were any chance that a delay would lead to losses by senior creditors, then the firm would be shut down and liquidated. However, an alternative position, the **relative priority doctrine,** holds that more flexibility should be allowed in a reorganization, and that a balanced consideration should be given to all claimants. The current law represents a movement away from absolute priority toward relative priority.

The primary role of the bankruptcy court in a reorganization is to determine the **fairness** and the **feasibility** of the proposed plan of reorganization. The basic doctrine of fairness states that claims must be recognized in the order of their legal and contractual priority. Feasibility means that there is a reasonable chance that the reorganized company will be viable. Carrying out the concepts of fairness and feasibility in a reorganization involves the following steps:

1. Future sales must be estimated.
2. Operating conditions must be analyzed so that future earnings and cash flows can be predicted.
3. The appropriate capitalization rate must be determined.
4. This capitalization rate must then be applied to the estimated cash flows to obtain an estimate of the company's value.[8]
5. An appropriate capital structure for the company after it emerges from Chapter 11 must be determined.
6. The reorganized firm's securities must be allocated to the various claimants in a fair and equitable manner.

The primary test of feasibility in a reorganization is whether the fixed charges after reorganization will be adequately covered by earnings. Adequate coverage generally requires an improvement in earnings, a reduction of fixed charges, or both. Among the actions that must generally be taken are the following:

1. Debt maturities are usually lengthened, interest rates may be lowered, and some debt is usually converted into equity.
2. When the quality of management has been substandard, a new team must be given control of the company.
3. If inventories have become obsolete or depleted, they must be replaced.
4. Sometimes the plant and equipment must be modernized before the firm can operate and compete successfully.
5. Reorganization may also require an improvement in production, marketing, advertising, and/or other functions.

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[7]For more on absolute priority, see Lawrence A. Weiss, "The Bankruptcy Code and Violations of Absolute Priority," *Journal of Applied Corporate Finance*, Summer 1991, pp. 71–78; William Beranek, Robert Boehmer, and Brooke Smith, "Much Ado about Nothing: Absolute Priority Deviations in Chapter 11," *Financial Management*, Autumn 1996, pp. 102–109; and Allan C. Eberhart, William T. Moore, and Rodney Roenfeldt, "Security Pricing and Deviations from the Absolute Priority Rule in Bankruptcy Proceedings," *Journal of Finance*, December 1990, pp. 1457–1469.

[8]Several different approaches can be used to estimate a company's value. Market-determined multiples such as the price/earnings ratio, which are obtained from an analysis of comparable firms, can be applied to some measure of the company's earnings or cash flow. Alternatively, discounted cash flow techniques may be used. The key point here is that fairness requires that the value of a company facing reorganization be estimated so that potential offers can be evaluated rationally by the bankruptcy court.

6. It is sometimes necessary to develop new products or markets to enable the firm to move from areas where economic trends are poor into areas with more potential for growth.
7. Labor unions must agree to accept lower wages and less restrictive work rules. This was a major issue for United Airlines in 2003 as it attempted to emerge from Chapter 11 bankruptcy protection. By threatening liquidation, UAL was able to squeeze a $6.6 billion reduction in payroll costs from its pilots over 6 years, and another $2.6 billion from its ground crew workers. This wasn't enough, though, and 3 years later UAL is still operating under bankruptcy protection.

These actions usually require at least some new money, so most reorganization plans include new investors who are willing to put up new capital.

It might appear that stockholders have very little to say in a bankruptcy situation in which the firm's assets are worth less than the face value of its debt. Under the absolute priority rule, stockholders in such a situation should get nothing of value under a reorganization plan. In fact, however, stockholders may be able to extract some of the firm's value. This occurs because (1) stockholders generally continue to control the firm during the bankruptcy proceedings, (2) stockholders have the first right to file a reorganization plan, and (3) for the creditors, developing a plan and taking it through the courts would be expensive and time consuming. Given this situation, creditors may support a plan under which they are not paid off in full and where the old stockholders will control the reorganized company just because the creditors want to get the problem behind them and to get some money in the near future.

Illustration of a Reorganization

Reorganization procedures may be illustrated with an example involving the Columbia Software Company, a regional firm that specializes in selling, installing, and servicing accounting software for small businesses.[9] Table 24-3 gives Columbia's balance sheet as of March 31, 2007. The company had been suffering losses running to $2.5 million a year, and, as will be made clear in the following discussion, the asset values in the balance sheet are overstated relative to their market values. The firm was **insolvent,** which means that the book values of its liabilities were greater than the market values of its assets, so it filed a petition with a federal court for reorganization under Chapter 11. Management filed a plan of reorganization with the court on June 13, 2007. The plan was subsequently submitted for review by the SEC.[10]

The plan concluded that the company could not be internally reorganized and that the only feasible solution would be to combine Columbia with a larger, nationwide software company. Accordingly, management solicited the interest of a number of software companies. Late in July 2007, Moreland Software showed an interest in Columbia. On August 3, 2007, Moreland made a formal proposal to take over Columbia's $6 million of $7\frac{1}{2}$% first-mortgage bonds, to pay the $250,000 in taxes owed by Columbia, and to provide 40,000 shares of Moreland common

[9]This example is based on an actual reorganization, although the company name has been changed and the numbers have been changed slightly to simplify the analysis.

[10]Reorganization plans must be submitted to the Securities and Exchange Commission (SEC) if (1) the securities of the debtor are publicly held and (2) total indebtedness exceeds $3 million. However, in recent years the only bankruptcy cases that the SEC has become involved in are those that are either precedent setting or that involve issues of national interest.

Table 24-3

Columbia Software Company: Balance Sheet as of March 31, 2007 (Millions of Dollars)

Assets	
Current assets	$ 3.50
Net fixed assets	12.50
Other assets	0.70
Total assets	$16.70
Liabilities and Equity	
Accounts payable	$ 1.00
Accrued taxes	0.25
Notes payable	0.25
Other current liabilities	1.75
$7\frac{1}{2}$% first mortgage bonds, due 2015	6.00
9% subordinated debentures, due 2010[a]	7.00
Total liabilities	$16.25
Common stock ($1 par)	1.00
Paid-in capital	3.45
Retained earnings	(4.00)
Total liabilities and equity	$16.70

[a]The debentures are subordinated to the notes payable.

stock to satisfy the remaining creditor claims. Since the Moreland stock had a market price of $75 per share, the value of the stock was $3 million. Thus, Moreland was offering $3 million of stock plus assuming $6 million of loans and $250,000 of taxes—a total of $9.25 million for assets that had a book value of $16.7 million.

Moreland's plan is shown in Table 24-4. As in most Chapter 11 plans, the secured creditors' claims are paid in full (in this case, the mortgage bonds are taken over by Moreland Software). However, the total remaining unsecured claims equal $10 million against only $3 million of Moreland stock. Thus, each unsecured creditor would be entitled to receive 30% before the adjustment for subordination. Before this adjustment, holders of the notes payable would receive 30% of their $250,000 claim, or $75,000 in stock. However, the debentures are subordinated to the notes payable, so an additional $175,000 must be allocated to notes payable. (See footnote a in Table 24-4.) In Column 5, the dollar claims of each class of debt are restated in terms of the number of shares of Moreland common stock received by each class of unsecured creditors. Finally, Column 6 shows the percentage of the original claim each group received. Of course, both the taxes and the secured creditors were paid off in full, while the stockholders received nothing.[11]

The bankruptcy court first evaluated the proposal from the standpoint of fairness. The court began by considering the value of Columbia Software as estimated by the unsecured creditors' committee and by a subgroup of debenture

[11]We do not show it, but $365,000 of fees for Columbia's attorneys and $123,000 of fees for the creditors' committee lawyers were also deducted. The current assets shown in Table 24-3 were net of these fees. Creditors joke (often bitterly) about the "lawyers first" rule in payouts in bankruptcy cases. It is often said, with much truth, that the only winners in bankruptcy cases are the attorneys.

Table 24-4
Columbia Software Company: Reorganization Plan

Senior Claims		
Taxes	$ 250,000	Paid off by Moreland
Mortgage bonds	$6,000,000	Assumed by Moreland

The reorganization plan for the remaining $10 million of liabilities, based on 40,000 shares at a price of $75 for a total market value of $3 million, or 30% of the remaining liabilities, is as follows:

Junior Claims (1)	Original Amount (2)	30% of Claim Amount (3)	Claim after Subordination (4)	Number of Shares of Common Stock (5)	Percentage of Original Claim Received (6)
Notes payable	$ 250,000	$ 75,000	$ 250,000[a]	3,333	100%
Unsecured creditors	2,750,000	825,000	825,000	11,000	30
Subordinated debentures	7,000,000	2,100,000	1,925,000[a]	25,667	28
	$10,000,000	$3,000,000	$3,000,000	40,000	30

[a]Because the debentures are subordinated to the notes payable, $250,000 − $75,000 = $175,000 must be redistributed from the debentures to the notes payable, leaving a claim of $2,100,000 − $175,000 = $1,925,000 for the debentures.

holders. After discussions with various experts, one group had arrived at estimated post-reorganization sales of $25 million per year. It further estimated that the profit margin on sales would equal 6%, thus producing estimated future annual earnings of $1.5 million.

This subgroup analyzed price/earnings ratios for comparable companies and arrived at 8 times future earnings for a capitalization factor. Multiplying 8 by $1.5 million gave an indicated equity value of the company of $12 million. This value was four times that of the 40,000 shares of Moreland stock offered for the remainder of the company. Thus, the subgroup concluded that the plan for reorganization did not meet the test of fairness. Note that under both Moreland's plan and the subgroup's plan, the holders of common stock were to receive nothing, which is one of the risks of ownership, while the holders of the first-mortgage bonds were to be assumed by Moreland, which amounts to being paid in full.

The bankruptcy judge examined management's plan for feasibility, observing that in the reorganization Moreland Software would take over Columbia's properties. The court judged that the direction and aid of Moreland would remedy the deficiencies that had troubled Columbia. Whereas the debt/assets ratio of Columbia Software had become unbalanced, Moreland had only a moderate amount of debt. After consolidation, Moreland would still have a relatively low 27% debt ratio.

Moreland's net income before interest and taxes had been running at a level of approximately $15 million. The interest on its long-term debt after the merger would be $1.5 million and, taking short-term borrowings into account, would total a maximum of $2 million per year. The $15 million in earnings before interest and taxes would therefore provide an interest charge coverage of 7.5 times, exceeding the norm of 5 times for the industry.

Note that the question of feasibility would have been irrelevant had Moreland offered $3 million in cash rather than in stock and had it offered to pay off the bonds rather than take them over. It is the court's responsibility to protect the interests of Columbia's creditors. Because the creditors are being forced to take common stock or bonds guaranteed by another firm, the law requires the court to look into the feasibility of the transaction. If Moreland had made a cash offer, however, the feasibility of its own operation after the transaction was completed would not have been a concern.

Moreland Software was told of the subgroup's analysis and concern over the fairness of the plan. Further, Moreland was asked to increase the number of shares it offered. Moreland refused, and no other company offered to acquire Columbia. Because no better offer could be obtained, and since the only alternative to the plan was liquidation (with an even lower realized value), Moreland's proposal was ultimately accepted by the creditors despite some disagreement with the valuation.

One interesting aspect of this case had to do with an agency conflict between Columbia's old stockholders and its management. Columbia's management knew, when it filed for bankruptcy, that the company was probably worth less than the amount of its debt, hence that stockholders would probably receive nothing. Indeed, that situation did materialize. If management has a primary responsibility to the stockholders, why would it file for bankruptcy knowing that the stockholders would receive nothing? First, management thought, but did not know for sure, that stockholders would receive nothing. What they were sure of was that if they did not file for bankruptcy protection, creditors would foreclose on the company's property and shut the company down, which would surely lead to liquidation and a total loss to stockholders. Also, if the company were liquidated, both management and the workforce would lose their jobs and the managers would get a very black mark on their records. Finally, Columbia's managers thought (correctly) that there was nothing they could do to protect the stockholders, so they might as well do what was best for the workforce, the creditors, and themselves, and that meant realizing the most value possible for the company's assets.

Some of the stockholders felt betrayed by management—they thought management should have taken more heroic steps to protect them, regardless of the cost to other parties. One stockholder suggested that management should have sold off assets, taken the cash to Las Vegas, and rolled the dice. Then, if they won, they should have paid off the debt and had something left for stockholders, but leave the debtholders holding the bag if they lost. Actually, management had done something a bit like this in the year preceding the bankruptcy. Management realized that the company was floundering and was likely to sink under its current operating plan and that only a "big winner" project would save the company. Therefore, they took on several very risky "bet the company" projects that had negative expected NPVs but at least some chance for high profits. Unfortunately, those projects did not work out.

Prepackaged Bankruptcies

In recent years, a new type of reorganization that combines the advantages of both the informal workout and formal Chapter 11 reorganization has become popular. This new hybrid is called a **prepackaged bankruptcy,** or **pre-pack.**[12]

[12]For more information on prepackaged bankruptcies, see John J. McConnell and Henri Servaes, "The Economics of Pre-Packaged Bankruptcy," *Journal of Applied Corporate Finance*, Summer 1991, pp. 93–97; Brian L. Betker, "An Empirical Examination of Prepackaged Bankruptcy," *Financial Management*, Spring 1995, pp. 3–18; Sris Chatterjee, Upinder S. Dhillon, and Gabriel G. Ramirez, "Resolution of Financial Distress: Debt Restructurings via Chapter 11, Prepackaged Bankruptcies, and Workouts," *Financial Management*, Spring 1996, pp. 5–18; and John J. McConnell, Ronald C. Lease, and Elizabeth Tashjian, "Prepacks as a Mechanism for Resolving Financial Distress," *Journal of Applied Corporate Finance*, Winter 1996, pp. 99–106.

In an informal workout, a debtor negotiates a restructuring with its creditors. Even though complex workouts typically involve corporate officers, lenders, lawyers, and investment bankers, workouts are still less expensive and less damaging to reputations than are Chapter 11 reorganizations. In a prepackaged bankruptcy, the debtor firm gets all, or most, of the creditors to agree to the reorganization plan *prior* to filing for bankruptcy. Then, a reorganization plan is filed along with, or shortly after, the bankruptcy petition. If enough creditors have signed on before the filing, a cramdown can be used to bring reluctant creditors along.

A logical question arises: Why would a firm that can arrange an informal reorganization want to file for bankruptcy? The three primary advantages of a prepackaged bankruptcy are (1) reduction of the holdout problem, (2) preserving creditors' claims, and (3) taxes. Perhaps the biggest benefit of a prepackaged bankruptcy is the reduction of the holdout problem, because a bankruptcy filing permits a cramdown that would otherwise be impossible. By eliminating holdouts, bankruptcy forces all creditors in each class to participate on a pro rata basis, which preserves the relative value of all claimants. Also, filing for formal bankruptcy can at times have positive tax implications. First, in an informal reorganization in which the debtholders trade debt for equity, if the original equity holders end up with less than 50% ownership, the company loses its accumulated tax losses. In formal bankruptcy, the firm may get to keep its loss carryforwards. Second, in a workout, when debt worth, say, $1,000, is exchanged for debt worth, say, $500, the reduction in debt of $500 is considered to be taxable income to the corporation. However, if this same situation occurs in a Chapter 11 reorganization, the difference is not treated as taxable income.[13]

All in all, prepackaged bankruptcies make sense in many situations. If sufficient agreement can be reached among creditors through informal negotiations, a subsequent filing can solve the holdout problem and result in favorable tax treatment. For these reasons, the number of prepackaged bankruptcies has grown dramatically in recent years.

Reorganization Time and Expense

The time, expense, and headaches involved in a reorganization are almost beyond comprehension. Even in $2 to $3 million bankruptcies, many people and groups are involved: lawyers representing the company, the U.S. Bankruptcy Trustee, each class of secured creditor, the general creditors as a group, tax authorities, and the stockholders if they are upset with management. There are time limits within which things are supposed to be done, but the process generally takes at least a year and probably much longer. The company must be given time to file its plan, and creditor groups must be given time to study and seek clarifications to it and then file counterplans to which the company must respond. Also, different creditor classes often disagree among themselves as to how much each class should receive, and hearings must be held to resolve such conflicts.

Management will want to remain in business, while some well-secured creditors may want the company liquidated as quickly as possible. Often, some party's plan will involve selling the business to another concern, as was the case with Columbia Software in our earlier example. Obviously, it can take months to seek out and negotiate with potential merger candidates.

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[13]Note that in both tax situations—loss carryforwards and debt value reductions—favorable tax treatment can be available in workouts if the firm is deemed to be legally insolvent, that is, if the market value of its assets is demonstrated to be less than the face value of its liabilities.

The typical bankruptcy case takes about 2 years from the time the company files for protection under Chapter 11 until the final reorganization plan is approved or rejected. While all of this is going on, the company's business suffers. Sales certainly won't be helped, key employees may leave, and the remaining employees will be worrying about their jobs rather than concentrating on their work. Further, management will be spending much of its time on the bankruptcy rather than running the business, and it won't be able to take any significant action without court approval, which requires filing a formal petition with the court and giving all parties involved a chance to respond.

Even if its operations do not suffer, the company's assets will surely be reduced by its own legal fees and the required court and trustee costs. Good bankruptcy lawyers charge from $200 to $400 or more per hour, depending on the location, so those costs are not trivial. The creditors will also be incurring legal costs. Indeed, the sound of all of those meters ticking at $200 or so an hour in a slow-moving hearing can be deafening.

Note that creditors also lose the time value of their money. A creditor with a $100,000 claim and a 10% opportunity cost who ends up getting $50,000 after 2 years would have been better off settling for $41,500 initially. When the creditor's legal fees, executive time, and general aggravation are taken into account, it might make sense to settle for $20,000 or $25,000.

Both the troubled company and its creditors know the drawbacks of formal bankruptcy, or their lawyers will inform them. Armed with a knowledge of how bankruptcy works, management may be in a strong position to persuade creditors to accept a workout that on the surface appears to be unfair and unreasonable. Or, if a Chapter 11 case has already begun, creditors may at some point agree to settle just to stop the bleeding.

One final point should be made before closing this section. In most reorganization plans, creditors with claims of less than $1,000 are paid off in full. Paying off these "nuisance claims" does not cost much money, and it saves time and gets votes to support the plan.[14]

SELF-TEST

Define the following terms: (1) common pool problem, (2) holdout problem, (3) automatic stay, (4) cramdown, (5) fraudulent conveyance, (6) absolute priority doctrine, (7) relative priority doctrine, (8) fairness, (9) feasibility, (10) debtor-in-possession financing, and (11) prepackaged bankruptcy.

What are the advantages of a formal reorganization under Chapter 11?

What are some recent trends regarding absolute versus relative priority doctrines?

How do courts assess the fairness and feasibility of reorganization plans?

Why have prepackaged bankruptcies become so popular in recent years?

24.6 Liquidation in Bankruptcy

If a company is "too far gone" to be reorganized, then it must be liquidated. Liquidation should occur when the business is worth more dead than alive, or when the possibility of restoring it to financial health is remote and the creditors are exposed to a high risk of greater loss if operations are continued. Earlier we discussed assignment, which is an informal liquidation procedure. Now we

[14]For more information on bankruptcy costs, see Daryl M. Guffey and William T. Moore, "Direct Bankruptcy Costs: Evidence from the Trucking Industry," *Financial Review*, May 1991, pp. 223–235.

consider **liquidation in bankruptcy,** which is carried out under the jurisdiction of a federal bankruptcy court.

Chapter 7 of the Federal Bankruptcy Reform Act deals with liquidation. It (1) provides safeguards against fraud by the debtor, (2) provides for an equitable distribution of the debtor's assets among the creditors, and (3) allows insolvent debtors to discharge all their obligations and thus be able to start new businesses unhampered by the burdens of prior debt. However, formal liquidation is time-consuming and costly, and it extinguishes the business.

The distribution of assets in a liquidation under Chapter 7 is governed by the following priority of claims:

1. *Past-due property taxes*.
2. *Secured creditors, who are entitled to the proceeds of the sale of specific property pledged for a lien or a mortgage*. If the proceeds from the sale of the pledged property do not fully satisfy a secured creditor's claim, the remaining balance is treated as a general creditor claim (see Item 10 below).[15]
3. *Legal fees and other expenses to administer and operate the bankrupt firm*. These costs include legal fees incurred in trying to reorganize.
4. *Expenses incurred after an involuntary case has begun but before a trustee is appointed*.
5. *Wages due workers if earned within 3 months prior to the filing of the petition in bankruptcy*. The amount of wages is limited to $2,000 per employee.
6. *Claims for unpaid contributions to employee pension plans that should have been paid within 6 months prior to filing*. These claims, plus wages in Item 5, may not exceed the $2,000-per-wage-earner limit.
7. *Unsecured claims for customer deposits*. These claims are limited to a maximum of $900 per individual.
8. *Taxes due to federal, state, county, and other government agencies*.
9. *Unfunded pension plan liabilities*. These liabilities have a claim above that of the general creditors for an amount up to 30% of the common and preferred equity, and any remaining unfunded pension claims rank with the general creditors.[16]
10. *General, or unsecured, creditors*. Holders of trade credit, unsecured loans, the unsatisfied portion of secured loans, and debenture bonds are classified as general creditors. Holders of subordinated debt also fall into this category, but they must turn over required amounts to the senior debt.

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[15]When a firm or individual who goes bankrupt has a bank loan, the bank will attach any deposit balances. The loan agreement may stipulate that the bank has a first-priority claim on any deposits. If this is the case, the deposits are used to offset all or part of the bank loan; this is called, in legal terms, "the right of offset." In this case, the bank will not have to share the deposits with other creditors. Loan contracts often designate compensating balances as security against a loan. Even if the bank has no explicit claim against deposits, the bank will attach the deposits and hold them for the general body of creditors, including the bank itself. Without an explicit statement in the loan agreement, the bank does not receive preferential treatment with regard to attached deposits.

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[16]Pension plan liabilities have a significant bearing on bankruptcy settlements. As we discuss in ***Web Chapter 29,*** pension plans may be funded or unfunded. Under a funded plan, the firm makes cash payments to an insurance company or to a trustee (generally a bank), which then uses these funds (and interest earned on them) to pay retirees' pensions. Under an unfunded plan, the firm is obligated to make payments to retirees, but it does not provide cash in advance. Many plans are actually partially funded—some money has been paid in advance, but not enough to provide full pension benefits to all employees.

If a firm goes bankrupt, the funded part of the pension plan remains intact and is available for retirees. Prior to 1974, employees had no explicit claims for unfunded pension liabilities, but under the Employees' Retirement Income Security Act of 1974 (ERISA), an amount up to 30% of the equity (common and preferred) is earmarked for employees' pension plans and has a priority over the general creditors, with any remaining pension claims having status equal to that of the general creditors. This means, in effect, that the funded portion of a bankrupt firm's pension plan is completely secured, but that the unfunded portion ranks somewhat above the general creditors. Obviously, unfunded pension fund liabilities should be of great concern to a firm's unsecured creditors.

Table 24-5
Whitman Inc.: Balance Sheet at Liquidation (Millions of Dollars)

Current assets	$80.0	Accounts payable	$20.0
Net fixed assets	10.0	Notes payable (to banks)	10.0
		Accrued wages (1,400 @ $500)	0.7
		Federal taxes	1.0
		State and local taxes	0.3
		Current liabilities	$32.0
		First mortgage	6.0
		Second mortgage	1.0
		Subordinated debentures[a]	8.0
		Total long-term debt	$15.0
		Preferred stock	2.0
		Common stock	26.0
		Paid-in capital	4.0
		Retained earnings	11.0
		Total equity	$43.0
Total assets	$90.0	Total liabilities and equity	$90.0

[a]The debentures are subordinated to the notes payable.

11. *Preferred stockholders*. These stockholders can receive an amount up to the par value of their stock.
12. *Common stockholders*. These stockholders receive any remaining funds.[17]

To illustrate how this priority system works, consider the balance sheet of Whitman Inc., shown in Table 24-5. Assets have a book value of $90 million. The claims are shown on the right-hand side of the balance sheet. Note that the debentures are subordinated to the notes payable to banks. Whitman filed for bankruptcy under Chapter 11, but since no fair and feasible reorganization could be arranged, the trustee is liquidating the firm under Chapter 7.

The assets as reported in the balance sheet are greatly overstated; they are, in fact, worth less than half the $90 million at which they are carried. The following amounts are realized on liquidation:

From sale of current assets	$28,000,000
From sale of fixed assets	5,000,000
Total receipts	$33,000,000

The distribution of proceeds from the liquidation is shown in Table 24-6. The first-mortgage holders receive the $5 million in net proceeds from the sale of fixed property, leaving $28 million available to the remaining creditors, including a $1 million unsatisfied claim of the first-mortgage holders. Next are the fees and expenses of administering the bankruptcy, which are typically about 20% of gross proceeds (including the bankrupt firm's own legal fees); in this example, they are

[17]Note that if different classes of common stock have been issued, differential priorities may exist in stockholder claims.

Table 24-6

Whitman Inc.: Distribution of Liquidation Proceeds (Millions of Dollars)

Distribution to Priority Claimants

Proceeds from the sale of assets	$33.0
Less:	
1. First mortgage (paid from the sale of fixed assets)	5.0
2. Fees and expenses of bankruptcy	6.0
3. Wages due to workers within 3 months of bankruptcy	0.7
4. Taxes due to federal, state, and local governments	1.3
Funds available for distribution to general creditors	$20.0

Distribution to General Creditors

General Creditors' Claims (1)	Amount of Claim[a] (2)	Pro Rata Distribution[b] (3)	Distribution after Subordination Adjustment[c] (4)	Percentage of Original Claim Received[d] (5)
Unsatisfied portion of first mortgage	$ 1.0	$ 0.5	$ 0.5	92%
Second mortgage	1.0	0.5	0.5	50
Notes payable (to banks)	10.0	5.0	9.0	90
Accounts payable	20.0	10.0	10.0	50
Subordinated debentures	8.0	4.0	0.0	0
Total	$40.0	$20.0	$20.0	

[a]Column 2 is the claim of each class of general creditor. Total claims equal $40.0 million.
[b]From the top section of the table, we see that $20 million is available for distribution to general creditors. Since there are $40 million of general creditor claims, the pro rata distribution will be $20/$40 = 0.50, or 50 cents on the dollar.
[c]The debentures are subordinate to the notes payable, so up to $5 million could be reallocated from debentures to notes payable. However, only $4 million is available to the debentures, so this entire amount is reallocated.
[d]Column 5 shows the results of dividing the Column 4 final allocation by the original claim shown in Column 2, except for the first mortgage, where the $5 million received from the sale of fixed assets is included in the calculation.

assumed to be $6 million. Next in priority are wages due workers, which total $700,000, and taxes due, which amount to $1.3 million. Thus far, the total amount of claims paid from the $33 million received from the asset sale is $13 million, leaving $20 million for the general creditors. In this example, we assume that there are no claims for unpaid benefit plans or unfunded pension liabilities.

The claims of the general creditors total $40 million. Since $20 million is available, claimants will initially be allocated 50% of their claims, as shown in Column 3. However, the subordination adjustment requires that the subordinated debentures turn over to the notes payable all amounts received until the notes are satisfied. In this situation, the claim of the notes payable is $10 million, but only $5 million is available; the deficiency is therefore $5 million. After transfer of $4 million from the subordinated debentures, there remains a deficiency of $1 million on the notes; this amount will remain unsatisfied.

Note that 90% of the bank claim is satisfied, whereas a maximum of 50% of other unsecured claims will be satisfied. These figures illustrate the usefulness of the subordination provision to the security to which the subordination is made.

Because no other funds remain, the claims of the holders of preferred and common stocks, as well as the subordinated debentures, are completely wiped out. Studies of the proceeds in bankruptcy liquidations reveal that unsecured creditors receive, on the average, about 15 cents on the dollar, while common stockholders generally receive nothing.

SELF-TEST

Describe briefly the priority of claims in a formal liquidation.

What is the impact of subordination on the final allocation of proceeds from liquidation?

In general, how much do unsecured creditors receive from a liquidation? How much do stockholders receive?

24.7 Other Motivations for Bankruptcy

Normally, bankruptcy proceedings do not commence until a company has become so financially weak that it cannot meet its current obligations. However, bankruptcy law also permits a company to file for bankruptcy if its financial forecasts indicate that a continuation of current conditions would lead to insolvency. This provision was used by Continental Airlines in 1983 to break its union contract and hence lower its labor costs. Continental demonstrated to a bankruptcy court that operations under the then-current union contract would lead to insolvency in a matter of months. The company then filed a reorganization plan that included major changes in all its contracts, including its union contract. The court sided with Continental and allowed the company to abrogate its contract. Continental then reorganized as a nonunion carrier, and that reorganization turned the company from a money loser into a money maker.[18] Congress changed the law after the Continental affair to make it more difficult for companies to use bankruptcy to break union contracts, but this case did set the precedent for using bankruptcy to help head off financial problems as well as to help solve existing ones.

Bankruptcy law has also been used to hasten settlements in major product liability suits. The Manville asbestos and A. H. Robins Dalkon Shield cases are examples. In both situations, the companies were being bombarded by thousands of lawsuits, and the very existence of such huge contingent liabilities made normal operations impossible. Further, in both cases it was relatively easy to prove (1) that if the plaintiffs won, the companies would be unable to pay the full amount of the claims, (2) that a larger amount of funds would be available to the claimants if the companies continued to operate rather than liquidate, (3) that continued operations were possible only if the suits were brought to a conclusion, and (4) that a timely resolution of all the suits was impossible because of their vast number and variety. The bankruptcy statutes were used to consolidate all the suits and to reach settlements under which the plaintiffs obtained more money than they otherwise would have received, and the companies were able to stay in business. The stockholders did poorly under these plans, because most of the companies' future cash flows were assigned to the plaintiffs, but even so, the stockholders probably fared better than they would have if the suits had been concluded through the jury system.

SELF-TEST

What are some situations other than immediate financial distress that lead firms to file for bankruptcy?

[18]Continental's fortunes declined again in 1990 when it was unable to successfully integrate several acquisitions, including Eastern, and the company filed for bankruptcy a second time. It emerged successfully.

24.8 Some Criticisms of Bankruptcy Laws

Although bankruptcy laws, for the most part, exist to protect creditors, many critics claim that current laws are not doing what they were intended to do. Before 1978, most bankruptcies ended quickly in liquidation. Then Congress rewrote the laws, giving companies more opportunity to stay alive, on the grounds that this was best for managers, employees, creditors, and stockholders. Before the reform, 90% of Chapter 11 filers were liquidated, but now that percentage is less than 80%, and the average time between filing and liquidation has almost doubled. Indeed, large public corporations with the ability to hire high-priced legal help can avoid, or at least delay, liquidation, often at the expense of creditors and shareholders.

Critics believe that bankruptcy is great for businesses these days—especially for consultants, lawyers, and investment bankers, who reap hefty fees during bankruptcy proceedings, and for managers, who continue to collect their salaries and bonuses as long as the business is kept alive. The problem, according to critics, is that bankruptcy courts allow cases to drag on too long, depleting assets that could be sold to pay off creditors and shareholders. Too often, quick resolution is impossible because bankruptcy judges are required to deal with issues such as labor disputes, pension plan funding, and environmental liability—social questions that could be solved by legislative action rather than by bankruptcy courts.

For example, LTV Corporation was in bankruptcy from 1986 to 1993, mainly because of pension disputes between the company, its workers, retirees, and the federal government. During this time, the Dallas-based conglomerate spent $162 million in legal and consulting fees, but, under the final reorganization plan, creditors got only 4 to 53 cents on the dollar, and stockholders got nothing.

Critics contend that bankruptcy judges ought to realize that some sick companies should be allowed to die—and die quickly. Maintaining companies on life support does not serve the interests of the parties the bankruptcy laws were meant to protect. The 2005 changes to the bankruptcy code addressed this issue by limiting to 18 months the time management has to file a reorganization plan. Prior to the change, judges could extend the time management has to reorganize almost indefinitely. Now, after a maximum of 18 months, creditors may propose a plan if an acceptable plan hasn't been filed by management.

Other critics think the entire bankruptcy system of judicial protection and supervision needs to be scrapped. Some even have proposed a kind of auction procedure, where shareholders and creditors would have the opportunity to gain control of a bankrupt company by raising the cash needed to pay the bills. The rationale here is that the market is a better judge than a bankruptcy court as to whether a company is worth more dead or alive.

Finally, note that companies operating under the protection of Chapter 11 can damage and perhaps even bankrupt their otherwise healthy competitors. To illustrate, Eastern Airlines' cash costs were low during its bankruptcy because it did not have to service its debt, and it was also generating cash by selling off assets. Eastern used its cash to advertise heavily and to cut fares, both of which siphoned off traffic from other airlines. Obviously, this hurt the other airlines and indeed led to other airline bankruptcies. Had Eastern been put down in a timely fashion, the airline industry would be a lot healthier today.

SELF-TEST

According to critics, what are some problems with the bankruptcy system?

24.9 Other Topics in Bankruptcy

Some additional insights into the reorganization and liquidation process can be gained by reviewing case histories of bankruptcies. Therefore, in ***Web Extension 24A*** at the textbook's Web site, we discuss the Eastern Airlines and Revco bankruptcies. Also, financial analysts are constantly seeking ways to assess a firm's likelihood of going bankrupt. We discuss one method, multiple discriminant analysis (MDA), in ***Web Extension 24B***.

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Summary

This chapter discussed the main issues involved in bankruptcy and financial distress in general. The key concepts are listed below:

- The proportion of businesses that fail fluctuates with the economy, but the average liability per failure has tended to increase over time due to inflation and to an increase in the number of billion-dollar bankruptcies in recent years.
- The fundamental issue that must be addressed when a company encounters financial distress is whether it is "worth more dead than alive;" that is, would the business be more valuable if it continued in operation or if it were liquidated and sold off in pieces?
- In the case of a fundamentally sound company whose financial difficulties appear to be temporary, creditors will frequently work directly with the company, helping it to recover and reestablish itself on a sound financial basis. Such voluntary reorganization plans are called **workouts.**
- Reorganization plans usually require some type of **restructuring** of the firm's debts, involving either an **extension,** which postpones the date of required payment of past-due obligations, or a **composition,** by which the creditors voluntarily reduce their claims on the debtor or the interest rate on their claims.
- When it is obvious that a firm is worth more dead than alive, informal procedures can sometimes be used to **liquidate** the firm. **Assignment** is an informal procedure for liquidating a firm, and it usually yields creditors a larger amount than they would receive in a formal bankruptcy liquidation. However, assignments are feasible only if the firm is small and its affairs are not too complex.
- Current **bankruptcy law** consists of nine chapters, designated by Arabic numbers. For businesses, the most important chapters are **Chapter 7,** which details the procedures to be followed when liquidating a firm, and **Chapter 11,** which contains procedures for formal reorganizations.
- Since the first bankruptcy laws, most formal reorganization plans have been guided by the **absolute priority doctrine.** This doctrine holds that creditors should be compensated for their claims in a rigid hierarchical order, and that senior claims must be paid in full before junior claims can receive even a dime.
- Another position, the **relative priority doctrine,** holds that more flexibility should be allowed in a reorganization and that a balanced consideration should be given to all claimants. In recent years, there has been a shift away

from absolute priority toward relative priority. The primary effect of this shift has been to delay liquidations so as to give managements more time to rehabilitate companies in an effort to provide value to junior claimants.

- The primary role of the bankruptcy court in a reorganization is to determine the **fairness** and the **feasibility** of proposed plans of reorganization.
- Even if some creditors or stockholders dissent and do not accept a reorganization plan, the plan may still be approved by the court if the plan is deemed to be "fair and equitable" to all parties. This procedure, in which the court mandates a reorganization plan in spite of dissent, is called a **cramdown.**
- In the last few years, a new type of reorganization that combines the advantages of both the informal workout and formal Chapter 11 reorganization has become popular. This new hybrid is called a **prepackaged bankruptcy,** or **pre-pack.**
- The distribution of assets in a **liquidation** under Chapter 7 of the Bankruptcy Act is governed by a specific priority of claims.

Questions

(24-1) Define each of the following terms:

a. Informal restructuring; reorganization in bankruptcy
b. Assignment; liquidation in bankruptcy; fairness; feasibility
c. Absolute priority doctrine; relative priority doctrine
d. Bankruptcy Reform Act of 1978; Chapter 11; Chapter 7
e. Priority of claims in liquidation
f. Extension; composition; workout; cramdown; prepackaged bankruptcy; holdout

(24-2) Why do creditors usually accept a plan for financial rehabilitation rather than demand liquidation of the business?

(24-3) Would it be a sound rule to liquidate whenever the liquidation value is above the value of the corporation as a going concern? Discuss.

(24-4) Why do liquidations usually result in losses for the creditors or the owners, or both? Would partial liquidation or liquidation over a period limit their losses? Explain.

(24-5) Are liquidations likely to be more common for public utility, railroad, or industrial corporations? Why?

Self-Test Problem Solution Appears in Appendix A

(ST-1) Liquidation

At the time it defaulted on its interest payments and filed for bankruptcy, Medford Fabricators Inc. had the following balance sheet (in millions of dollars). The court, after trying unsuccessfully to reorganize the firm, decided that the only recourse was liquidation under Chapter 7. Sale of the fixed assets, which were pledged as collateral to the mortgage bondholders, brought in $750 million, while the current assets were sold for another $400 million. Thus, the total proceeds from the liquidation sale were $1,150 million. Trustee's costs amounted to $1 million; no single worker was due more than $2,000 in wages; and there were no unfunded pension plan liabilities.

Current assets	$ 800	Accounts payable	$ 100
		Accrued taxes	90
		Accrued wages	60
		Notes payable	300
		Total current liabilities	$ 550
Net fixed assets	1,100	First-mortgage bonds[a]	700
		Second-mortgage bonds[a]	400
		Debentures	500
		Subordinated debentures[b]	200
		Common stock	100
		Retained earnings	(550)
Total assets	$1,900	Total claims	$1,900

Notes:

[a]All fixed assets are pledged as collateral to the mortgage bonds.

[b]Subordinated to notes payable.

a. How much of the proceeds from the sale of assets remain to be distributed to general creditors after distribution to priority claimants?
b. After distribution to general creditors and subordination adjustments are made, how much of the proceeds are received by the second mortgage holders? By holders of the notes payable? By the subordinated debentures? By the common stockholders?

Problems Answers Appear in Appendix B

Easy Problem 1

(24-1) Liquidation

Southwestern Wear Inc. has the following balance sheet:

Current assets	$1,875,000	Accounts payable	$ 375,000
Fixed assets	1,875,000	Notes payable	750,000
		Subordinated debentures	750,000
		Total debt	$1,875,000
		Common equity	1,875,000
Total assets	$3,750,000	Total liabilities and equity	$3,750,000

The trustee's costs total $281,250, and the firm has no accrued taxes or wages. The debentures are subordinated only to the notes payable. If the firm goes bankrupt and liquidates, how much will each class of investors receive if a total of $2.5 million is received from sale of the assets?

Intermediate Problem 2

(24-2) Reorganization

The Verbrugge Publishing Company's 2007 balance sheet and income statement are as follows (in millions of dollars).

Balance Sheet

Current assets	$168	Current liabilities	$ 42
Net fixed assets	153	Advance payments	78
Goodwill	15	Reserves	6
		$6 preferred stock, $112.50 par value (1,200,000 shares)	135
		$10.50 preferred stock, no par, callable at $150 (60,000 shares)	9
		Common stock, $1.50 par value (6,000,000 shares)	9
		Retained earnings	57
Total assets	$336	Total claims	$336

Income Statement

Net sales	$540.0
Operating expense	516.0
Net operating income	$ 24.0
Other income	3.0
EBT	$ 27.0
Taxes (50%)	13.5
Net income	$ 13.5
Dividends on $6 preferred	7.2
Dividends on $10.50 preferred	0.6
Income available to common stockholders	$ 5.7

Verbrugge and its creditors have agreed upon a voluntary reorganization plan. In this plan, each share of the $6 preferred will be exchanged for one share of $2.40 preferred with a par value of $37.50 plus one 8% subordinated income debenture with a par value of $75. The $10.50 preferred issue will be retired with cash.

a. Construct the pro forma balance sheet assuming that reorganization takes place. Show the new preferred stock at its par value.
b. Construct the pro forma income statement. What is the income available to common shareholders in the proposed recapitalization?
c. *Required earnings* is defined as the amount that is just enough to meet fixed charges (debenture interest and/or preferred dividends). What are the required pre-tax earnings before and after the recapitalization?
d. How is the debt ratio affected by the reorganization? If you were a holder of Verbrugge's common stock, would you vote in favor of the reorganization?

Challenging Problems 3–4

(24-3) Liquidation

At the time it defaulted on its interest payments and filed for bankruptcy, the McDaniel Mining Company had the following balance sheet (in thousands of dollars). The court, after trying unsuccessfully to reorganize the firm, decided that the only recourse was liquidation under Chapter 7. Sale of the fixed assets, which were pledged as collateral to the mortgage bondholders, brought in $400,000, while the current assets were sold for another $200,000. Thus, the total proceeds from the liquidation sale were $600,000. Trustee's costs amounted to $50,000; no single worker was due more than $2,000 in wages; and there were no unfunded pension plan liabilities.

Current assets	$ 400	Accounts payable	$ 50
Net fixed assets	600	Accrued taxes	40
		Accrued wages	30
		Notes payable	180
		Total current liabilities	$ 300
		First-mortgage bonds[a]	300
		Second-mortgage bonds[a]	200
		Debentures	200
		Subordinated debentures[b]	100
		Common stock	50
		Retained earnings	(150)
Total assets	$1,000	Total claims	$1,000

Notes:

[a]All fixed assets are pledged as collateral to the mortgage bonds.

[b]Subordinated to notes payable only.

a. How much will McDaniel's shareholders receive from the liquidation?
b. How much will the mortgage bondholders receive?
c. Who are the other priority claimants in addition to the mortgage bondholders? How much will they receive from the liquidation?
d. Who are the remaining general creditors? How much will each receive from the distribution before subordination adjustment? What is the effect of adjusting for subordination?

(24-4) Liquidation

The following balance sheet represents Boles Electronics Corporation's position at the time it filed for bankruptcy (in thousands of dollars):

Cash	$ 10	Accounts payable	$ 1,600
Receivables	100	Notes payable	500
Inventories	890	Wages payable	150
		Taxes payable	50
Total current assets	$ 1,000	Total current liabilities	$ 2,300
Net plant	4,000	Mortgage bonds	2,000
Net equipment	5,000	Subordinated debentures	2,500
		Preferred stock	1,500
		Common stock	1,700
Total assets	$10,000	Total claims	$10,000

The mortgage bonds are secured by the plant, but not by the equipment. The subordinated debentures are subordinated to notes payable. The firm was unable to reorganize under Chapter 11; therefore, it was liquidated under Chapter 7. The trustee, whose legal and administrative fees amounted to $200,000, sold off the assets and received the following proceeds (in thousands of dollars):

Asset	Proceeds
Plant	$1,600
Equipment	1,300
Receivables	50
Inventories	240
Total	$3,190

In addition, the firm had $10,000 in cash available for distribution. No single wage earner had over $2,000 in claims, and there were no unfunded pension plan liabilities.

a. What is the total amount available for distribution to all claimants? What is the total of creditor and trustee claims? Will the preferred and common stockholders receive any distributions?
b. Determine the dollar distribution to each creditor and to the trustee. What percentage of each claim is satisfied?

Spreadsheet Problem

(24-5) Liquidation

Start with the partial model in the file ***FM12 Ch 24 P05 Build a Model.xls*** at the textbook's Web site. Use the information and data from Problem 24-4, except assume that the fixed assets can be sold for $450,000 and that the current assets can be sold for $250,000. Determine the amounts available for distribution to each claimant.

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Cyberproblem

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Please go to the textbook's Web site to access any Cyberproblems.

Mini Case

Kimberly MacKenzie, president of Kim's Clothes Inc., a medium-sized manufacturer of women's casual clothing, is worried. Her firm has been selling clothes to Russ Brothers Department Store for more than 10 years, and she has never experienced any problems in collecting payment for the merchandise sold. Currently, Russ Brothers owes Kim's Clothes $65,000 for spring sportswear that was delivered to the store just 2 weeks ago. Kim's concern was brought about by an article that appeared in yesterday's *Wall Street Journal* that indicated that Russ Brothers was having serious financial problems. Further, the article stated that Russ Brothers' management was considering filing for reorganization, or even liquidation, with a federal bankruptcy court.

Kim's immediate concern was whether or not her firm would collect its receivables if Russ Brothers went bankrupt. In pondering the situation, Kim also realized that she knew nothing about the process that firms go through when they encounter severe financial distress. To learn more about bankruptcy, reorganization, and liquidation, Kim asked Ron Mitchell, the firm's chief financial officer, to prepare a briefing on the subject for the entire board of directors. In turn, Ron asked you, a newly hired financial analyst, to do the groundwork for the briefing by answering the following questions.

a. (1) What are the major causes of business failure?
   (2) Do business failures occur evenly over time?
   (3) Which size of firm, large or small, is more prone to business failure? Why?
b. What key issues must managers face in the financial distress process?
c. What informal remedies are available to firms in financial distress? In answering this question, define the following terms:
   (1) Workout
   (2) Restructuring
   (3) Extension
   (4) Composition
   (5) Assignment
   (6) Assignee (trustee)
d. Briefly describe U.S. bankruptcy law, including the following terms:
   (1) Chapter 11
   (2) Chapter 7
   (3) Trustee
   (4) Voluntary bankruptcy
   (5) Involuntary bankruptcy
e. What are the major differences between an informal reorganization and reorganization in bankruptcy? In answering this question, be sure to discuss the following items:
   (1) Common pool problem
   (2) Holdout problem
   (3) Automatic stay
   (4) Cramdown
   (5) Fraudulent conveyance
f. What is a prepackaged bankruptcy? Why have prepackaged bankruptcies become more popular in recent years?
g. Briefly describe the priority of claims in a Chapter 7 liquidation.
h. Assume that Russ Brothers did indeed fail, and that it had the following balance sheet when it was liquidated (in millions of dollars):

Current assets	$40.0	Accounts payable	$10.0
Net fixed assets	5.0	Notes payable (to banks)	5.0
		Accrued wages	0.3
		Federal taxes	0.5
		State and local taxes	0.2
		Current liabilities	$16.0
		First-mortgage bonds	3.0
		Second-mortgage bonds	0.5
		Subordinated debentures[a]	4.0
		Total long-term debt	$ 7.5
		Preferred stock	1.0
		Common stock	13.0
		Paid-in capital	2.0
		Retained earnings	5.5
		Total equity	$21.5
Total assets	$45.0	Total claims	$45.0

[a]The debentures are subordinated to the notes payable.

The liquidation sale resulted in the following proceeds:

From sale of current assets	$14,000,000
From sale of fixed assets	2,500,000
Total receipts	$16,500,000

For simplicity, assume that there were no trustee's fees or any other claims against the liquidation proceeds. Also, assume that the mortgage bonds are secured by the entire amount of fixed assets. What would each claimant receive from the liquidation distribution?

Selected Additional Cases

The following cases from Textchoice, *Thomson Learning's online library, cover many of the concepts discussed in this chapter and are available at* ***http://www.textchoice2.com.***

Klein-Brigham Series:
Case 39, "Mark X Company (B)," which examines the allocation of proceeds under bankruptcy.