

CHAPTER 1

Introduction

In early times, the proverb “He who cannot pay with his purse, pays with his skin” had a ruthlessly literal application. The law of ancient Rome (450 B.C.) declared that the borrower was nexus to his creditors, which meant that his own person was pledged for repayment of the loan. If the borrower failed to meet his obligation, the creditor could seize him. The creditor then publicly invited someone to come forth to pay the debt, and if no one did, the creditor killed or sold the debtor.¹ A number of Biblical references testify to the fact that one could be enslaved for the nonpayment of debt. In II Kings 4:1 “. . . a certain woman of the wives of the sons of the prophets cried out to Elisha, ‘Your servant my husband is dead, and you know that your servant feared the Lord; and the creditor has come to take my two children to be his slaves.’ Elisha said, ‘Go, borrow vessels at large for yourself from all your neighbors.’ From one jar of oil she filled all the vessels that had been borrowed. Elisha said to her, ‘Go, sell the oil and pay your debt, and you and your sons can live on the rest.’” In ancient Greece, under the criminal code of Draco (623 B.C.), indebtedness was classified with murders, sacrilege, and other capital crimes. King Solomon ordered during his reign that the debts that remained after an attempt at restitution should be forgiven, but that the debtor and his heirs had to forfeit their citizenship.²

BANKRUPTCY LAWS

The first English bankruptcy law, passed in 1542, was a law against the debtor. Only the creditor could, under certain conditions, initiate bankruptcy action and divide up the assets of the debtor. If there were liabilities that debtors were unable to pay with their assets, they were sent to prison. The 1542 law applied only to traders, but in 1570 it was amended to

¹George Sullivan, *The Boom in Going Bust* (New York: Macmillan, 1968), p. 25.

²*Id.*

include merchants.³ It was not until 1705 that the English law provided for discharge of debtors from their debts.

Historical Origin of United States Laws

Physical punishment, imprisonment, and other harsh practices were common in England and some colonies, yet were observed by many to be totally ineffective. The American lawmakers saw the need for a national bankruptcy law; however, such a law was not considered until a very late date in the proceedings of the Federal Convention. On August 29, 1787, Charles Pinckney of South Carolina moved to give the federal government the power to establish uniform laws on the subject of bankruptcy as a part of the Full Faith and Credit Clause (Article XVI). On September 1, 1787, John Rutledge recommended that, in Article VII, relating to the Legislative Department, there be added after the power to establish uniform rule of naturalization a power “to establish uniform laws on the subject of bankruptcies.” On September 3, 1787, this clause was adopted after very little debate. Only the State of Connecticut opposed the provision; its representative, Roger Sherman, objected to any power that would make it possible to punish by death individuals who were bankrupt. In the final draft, the power to establish uniform bankruptcy laws was inserted after the provision to regulate commerce in section 8 of Article I.⁴

The wording of the provision is: “Congress shall have the power . . . to establish . . . uniform Laws on the subject of Bankruptcies throughout the United States.” Although the right was granted, the states were so opposed to it that national bankruptcy laws existed intermittently for only about 17 years prior to 1900.⁵ The meaning and scope of the term *bankruptcy* as used by the framers of the Constitution are unclear. The English law in existence at the time this provision was added to the Constitution used the word bankruptcy as an involuntary proceeding applying only to traders. However, at this time some states had laws that used the term to apply to all classes of persons and all forms of insolvency. The intent of the writers in using the term bankruptcy served as a focal point of debate each time a bankruptcy law was proposed during a period of more than 80 years.

Under the authority granted it, Congress passed three bankruptcy acts prior to 1898. The first act, passed in 1800 and repealed three years later,

³Louis Levinthal, “The Early History of Bankruptcy Law,” *University of Pennsylvania Law Review* 66 (1917–1918), p. 224n.

⁴Charles Warren, *Bankruptcies in United States History* (Cambridge, MA: Harvard University Press, 1935), pp. 4–5.

⁵Charles Gerstenberg, *Financial Organization and Management of Business* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1959), p. 532.

applied to traders, brokers, and merchants, and contained no provisions for voluntary bankruptcy. The first act was finally passed as a result of a financial crash brought about by overspeculation in real estate. Many rich and prominent traders were in prison because they were unable to pay their creditors. Robert Morris, the great financier of the Revolution, was in the Prune Street Jail in Philadelphia with liabilities of about \$12 million. James Wilson, a justice of the United States Supreme Court, went to North Carolina just before his death, to avoid imprisonment for debts he owed in Pennsylvania.⁶

The first act, by its terms, was limited to five years, but it lasted only three years because of several factors. First, there was the difficulty of travel to the distant and unpopular federal courts. Second, very small dividends were paid to creditors; one reason for this was that most of the debtors forced into bankruptcy were already in prison. Third, the act had been largely used by rich debtors, speculators, and, in some cases, fraudulent debtors to obtain discharge from their debts.⁷ Among the debtors who were released as a result of this act was Robert Morris.

The second act, passed in 1841, applied to all debtors, contained provisions for voluntary bankruptcy, and allowed a discharge of the unpaid balance remaining after all assets were distributed to creditors. The second act was not really given an opportunity to succeed. The bill was defeated in the House on August 17, 1841, by a vote of 110 to 97. Because of some maneuvering, the bill was reconsidered the next morning and passed by a vote of 110 to 106. Opponents of the bill started working toward its repeal, and the bill was revoked by a vote of 140 to 71 in the House and 32 to 13 in the Senate. It had lasted just over one year.

The financial problems created by the Civil War caused Congress to consider a third act, which became law in 1867 and was repealed in 1878. This act marked the beginning of an attempt by Congress to permit debtors to escape the stigma associated with bankruptcy by allowing a composition of their debts without being adjudicated a bankrupt.

The Bankruptcy Act passed in 1898, as amended, applies to all cases that were filed before October 1, 1979. The act was thoroughly revised by the Bankruptcy Act of 1938, commonly known as the Chandler Act, which added the chapter proceedings to the basic law. The most profound of all developments in bankruptcy law must have been the passing of the Chandler Act, which gave the courts the power to regulate the disposition of all debtor estates and individuals, as well as business, agriculture, railroads, municipalities, and real estate, whether in liquidation, rehabilitation, or reorganization. The most frequently used of the chapter proceedings created

⁶Warren, *supra* note 4, p. 13.

⁷*Id.*, pp. 19–20.

by the Chandler Act was Chapter XI, which was established to provide rehabilitation of the honest debtor with a maximum of speed and a minimum of cost.⁸ The various chapter proceedings under the Bankruptcy Act were designated with roman numerals, and arabic numbers are used in the Bankruptcy Code, effective October 1, 1979.

It is interesting to note how the economic philosophy of bankruptcy has changed over the past 400 years. The first laws in Great Britain and the United States were for the benefit of creditors only. Later laws gave consideration to debtors by allowing discharges in exchange for their cooperation. They also gave the debtor some protection against haphazard seizure by creditors; however, this provision became law primarily to protect the interest of other creditors. Very little consideration seems to have been given to the public in the United States until 1933 when section 77 was added to the 1898 act, granting railroads the right to reorganize.⁹

The Bankruptcy Act of 1898, as amended in 1938, consisted of 14 chapters. The first seven dealt with the basic structure of the bankruptcy system and set forth all of the proceedings of so-called straight bankruptcy. Chapter VIII dealt with the reorganization of railroads, and Chapter IX concerned the composition of debts of certain public authorities. Chapter X set forth in great detail the rules for reorganizing corporations with secured debts and, often, publicly held stock. Chapter XI covered arrangements with unsecured creditors primarily for business debtors and for other persons who were not wage earners. Provisions for wage earners were described in Chapter XIII. Chapter XII covered debts secured by liens on real property, and Chapter XIV dealt with maritime liens. Chapters VIII, IX, and XIV were used very infrequently. During the last half of the 1970s, the number of Chapter XII proceedings that were filed increased substantially. Most of this increase was caused by the large number of limited partnerships involving real property ownership that had financial problems.

Bankruptcy law, as it has evolved during the past 100 years, was intended not only to secure equality among creditors and to provide relief to debtors by discharging them from their liabilities and allowing them to start a new economic life, but also to benefit society at large.

Bankruptcy Code

The term *bankruptcy law* is generally used to refer to federal law—title 11 of the U.S. Code, commonly referred to as the Bankruptcy Code. The current law became effective October 1, 1979, after President Jimmy Carter signed the Bankruptcy Reform Act of 1978 on November 6, 1978. This act

⁸George Ashe, "Rehabilitation under Chapter XI: Fact or Fiction," *Commercial Law Journal*, vol. 72 (September 1967), p. 260.

⁹Gerstenberg, *supra* note 5.

has been amended on many occasions, the three major amendments being the Bankruptcy Amendments and Federal Judgeship Act of 1984; Bankruptcy Judges, United States Trustees, and Family Farmer Bankruptcy Act of 1986; and the Bankruptcy Reform Act of 1994.

Bankruptcy Filings

Bankruptcy filings increased in 2002 to an all-time high of over 1.5 million petitions. From 1995 through 1998, the number of petitions increased each year while the U.S. economy continued to grow. The year 1998 represented the eighth straight year of economic growth. In 1999 and 2000, the filings dropped; however, in 2001, the downward trend was reversed. For the 12 months ending in December, the number of petitions filed increased to approximately 1.44 million.

The total filings by decade and the number of filings per decade per 1,000 in population has increased significantly since the Great Depression, when the number was less than 5 and in the 1990s there were almost 40 filings per 1,000 individuals. The administrative office of the U.S. courts estimates the number of filings per 1,000 population during the 1990s to be approximately 38. Exhibit 1.1 summarizes the business filings as a percent of total filings for the last 17 years.

Among the bankruptcy filing in 2001 was Enron, then the world's foremost power and gas trader. It filed for bankruptcy on December 2. Enron, the largest company to file a chapter 11 petition (almost twice the size of the Texaco bankruptcy filed in 1987) was the seventh largest firm on the *Fortune* 500 list, claiming assets of approximately \$62 billion just over 60 days before the petition was filed. The value of a share of the company's stock fell from over \$90 per share a year prior to its filing to \$.26 per share just a few days before the filing of the petition.

Listed below are the six largest chapter 11 filings in terms of asset value:

Worldcom, Inc.	\$103.9
Enron Corp.	63.4
Texaco	35.9
Financial Corp. of America	33.6
Global Crossing, Ltd.	25.5
Adelphia Communications	24.4

Source: Bankruptcy.com

During 2001, the number of public company filings reached an all-time high of 257 filings exceeding the 2000 record of 176 filings. According to data furnished by BankruptcyData.com, the declared assets associated with the 257 filings in 2001 of approximately \$260 billion were almost three times the assets associated with the previous year's filings.

EXHIBIT 1.1 Filings by Business and Consumer

Calendar Year	Total Filings	Business Cases	Percent of Total	Consumer Cases
1982	380,212	69,207	18.2%	311,004
1983	348,881	62,412	17.9%	286,469
1984	348,521	62,214	18.4%	284,307
1985	412,510	71,277	17.3%	341,233
1986	530,438	81,235	15.3%	449,203
1987	577,999	82,446	14.3%	495,553
1988	613,465	63,853	10.4%	549,612
1989	679,461	63,235	9.3%	616,226
1990	782,960	64,853	8.3%	718,107
1991	943,987	71,549	7.6%	872,438
1992	971,517	70,643	7.3%	900,874
1993	875,202	62,304	7.1%	812,898
1994	832,829	52,374	6.3%	780,455
1995	926,601	51,959	5.6%	874,642
1996	1,178,555	53,549	4.5%	1,125,006
1997	1,404,145	54,027	3.8%	1,350,118
1998	1,442,549	44,367	3.1%	1,398,182
1999	1,319,465	37,884	2.9%	1,281,581
2000	1,253,444	35,472	2.8%	1,217,972
2001	1,492,129	40,099	2.7%	1,452,030
2002*	1,505,306	39,201	2.6%	1,466,105

*2002 data for 12 months ending June 30, 2002.

Source: Administrative Office of the United States Courts

TURNAROUND AND RESTRUCTURING

Two critical aspects of the process of making a business with problems profitable again involve solving the operational problems and restructuring the debt and equity of the business. *Turnaround* is used to mean the process of solving the operation problems of a business. It involves improving the position of the business as a low-cost provider of increasingly differentiated products and services and nurturing a competent organization with industry-oriented technical expertise and a general sense of fair play in dealing with employees, creditors, suppliers, shareholders, and customers.¹⁰ *Restructuring* is used to mean the process of developing a financial structure that will provide a basis for turnaround.

¹⁰Frederick M. Zimmerman, *The Turnaround Experience* (New York: McGraw-Hill, 1991), p. 111.

Some entities in financial difficulty are able to solve their problems by the issuance of stock for a large part of the debt; such is the case where the company is overleveraged. Others are able to regain profitability by improving cost margins through reduction of manufacturing costs and elimination of unprofitable products. However, the majority of businesses require attention to operating problems as well as changes to the structure of the business.

Restructuring Alternatives

When a business finds itself heading toward serious financial difficulty, unable to obtain new financing or to solve its financial problems internally, it should seek a remedy through its creditors, either out of court or with the help of the federal Bankruptcy Code. Under either of these methods, the debtor has several alternatives as to the particular way it will seek relief. The appropriate method depends on a number of variables, including the debtor's history, size, debt structure, nature of problems, and future outlook. In examining the alternatives, two major issues must be resolved:

1. Should the business liquidate or reorganize?
2. Should the liquidation or reorganization take place out of court or in bankruptcy court?

If it is determined that the business should be liquidated, an analysis should be made of the ways in which a business can be dissolved. For example, the debtor might decide to make a general assignment for the benefit of creditors under state or common law. In many cases, to provide for an equitable distribution it will be necessary for the debtor to file a chapter 7 petition. Chapter 7, dealing only with liquidations, is designed to provide a framework for the business to be closed, assets to be sold, and proceeds to be distributed to the claim or equity holders. In addition, it is possible for the debtor to liquidate under chapter 11 by filing a plan of liquidation rather than a plan of reorganization.

Where continuation of the business is desirable, and it appears resumption of profitable operations is possible, rehabilitation proceedings can be pursued, either out of court or under the Bankruptcy Code. It is generally best to pursue a settlement out of court, if necessary conditions exist. If the business elects to reorganize under the Bankruptcy Code, a chapter 11 petition should be filed.

Business Turnaround

The process of solving the operating problems of the business (turning the business around) is similar regardless of whether the process is completed in

or out of the bankruptcy court. That process of turning the business around may be divided into six stages:

Stage 1	Management change
Stage 2	Situation analysis
Stage 3	Design and selection of turnaround strategy
Stage 4	Emergency action
Stage 5	Business restructuring
Stage 6	Return to normal

Stage 1: Management Change The objectives of the management change stage are to put in place a top management team that will lead the turnaround and to replace any top management members who will hinder the turnaround effort. Studies suggest that in most turnaround situations, top management is replaced, and that in most successful turnarounds, top management is generally replaced with outsiders rather than insiders.¹¹

Leadership changes are made for both symbolic and substantive reasons. Replacing managers has stimulated change by unfreezing current attitudes, breaking mind-sets conditioned by the industry, removing concentrations of power, and providing a new view of the business and its problems.¹² Replacing leadership may in fact create the level of stress or tension needed to stimulate change. Because a majority of business failures and the need for business turnaround are related to poor management, there are obviously substantive reasons for leadership change.

Efforts are made in some cases to select a high-profile CEO to serve as the leader of the turnaround. A leader with a good reputation in turning around troubled business helps instill both creditor and management confidence in the process, especially at the beginning. It may also provide for a longer “honeymoon” period. However, in the final analysis, the success will depend on many factors, including the leadership actually provided by the CEO.

Often the creditors will insist that there be a change in management before they will work with the debtor out of court or in a chapter 11 case. A management change might take the form of replacing existing top management with new management experienced in the debtor’s type of operations. However, in many out-of-court situations, a workout specialist is

¹¹Donald B. Bibeault, *Corporate Turnaround: How Managers Turn Losers into Winners* (New York: McGraw-Hill, 1982). Bibeault notes that in 90 percent of successful turnarounds, where the downturn was caused by internal problems, top management was replaced with outsiders.

¹²Richard C. Hoffman, “Strategies for Corporate Turnarounds: What Do We Know about Them?” *Journal of General Management* (Spring 1989), p. 59.

engaged to locate the debtor's problems and see that the business is preserved. Once operations are profitable, the workout specialist moves on to another troubled company. For example, Steve Cooper of Kroll Zolfo Cooper, a financial consulting firm, was selected as the corporate restructuring officer for Enron.

These individuals are generally given the freedom to run the companies they take over as they see fit. Managers perceived as being competent, and those the specialist feels comfortable working with, will be retained. The other managers are let go. Compensation paid these specialists will vary; some want, in addition to a salary, a stake in the ownership or other forms of bonuses if their efforts prove successful. These workout specialists, in addition to running the business, work with the creditors' committee in developing the plan of settlement. The key management positions in the company are staffed under the direction of the specialist so that, once the operations are again profitable, the workout specialist can move on. If the companies involved are relatively small, the workout specialist may be supervising the operations of several businesses at one time.

Stage 2: Situation Analysis The objectives of the second stage are to determine that the "bleeding" can be stopped and whether the business is viable; to identify the most appropriate turnaround strategy; and to develop a preliminary action plan for implementation.

The turnaround situation can vary from one where the problems are just beginning and the impact has not been fully recognized to situations where the business is in danger of complete failure. The sooner action is taken—often with the appointment of a specialist to turn the business around or the selection of a consultant to work with the debtor—the greater the possibility of a successful turnaround. Broad categories of the situations a turnaround leader may face may be described as follows:

- **Declining business.** Decreasing market share, operating and gross margins, market leadership, product quality, and so on.
- **Substantial or continuing losses.** But survival is not threatened.
- **Danger of failure.** The company may already be in chapter 11 or on the verge of filing.

Unless immediate and appropriate action is taken, liquidation is the only alternative. The situation that the business is in will impact the nature, as well as the speed, of the actions needed to stabilize the business and begin the process of turning it around.

One of the first roles of the turnaround leader is to make a preliminary assessment of the viability of the business. The factors considered in the assessment include:

- *An identification of the business unit or units that appear to be viable—business units that have a potential for profitable future operations.* These units, which serve as the basis for the turnaround are often the original core of the business.¹³
- *The availability of interim financing—financing needed during the turnaround period.* The turnaround leader must determine if there is support from existing lenders and if funds are available from other credit sources.
- *The adequacy of organizational resources.* This determination may involve a preliminary and broad assessment of the strengths and weaknesses of the business.

Some turnaround approaches deal with strategic areas that need to be considered, such as diversification, divestment, expanding to new markets, and vertical integration. Operating turnarounds deal with operating efficiency, plant expenditures, product quality, and so forth. Dividing turnarounds between these major categories is questionable for two basic reasons. First, only a small percentage of turnarounds might be defined as basic strategic turnarounds. For example, the strategic approach is not applicable to most mature businesses that are in financial difficulty. Second, in most cases, some combination of both strategic and operational approaches must be considered. For example, a determination that 60 percent of the existing product line should be eliminated might free more capacity and require a strategic decision as to whether it would be profitable to expand sales into another region or country.

A detailed viability analysis may involve an analysis of the strengths and weaknesses of the company, an analysis of the industry in which the company operates, and an analysis of the competitive ability of the company in that environment. Determining the strengths and weaknesses of the company may appear to be a very simple task, but in fact it needs careful analysis. The answer, according to Drucker,¹⁴ is usually anything but obvious. The evaluation should include an analysis of at least some of the following:

- Organizational structure
- Market capability
- Production capabilities
- Engineering and research and development
- Administration

¹³Bibeault, *supra* note 11, p. 207, determined that two-thirds of the cores that appeared to be the viable part of the businesses were the founding businesses.

¹⁴Peter F. Drucker, *The Practice of Management* (New York: Harper & Row, 1959), p. 49.

In analyzing the environment, issues such as the following must be studied and answered:

- **The market.** What is total demand? Is it increasing? Is it decreasing?
- **The customers.** What are their needs, expectations, values, and resources?
- **The competition.** Who? Where? What are their strengths and limitations?
- **Suppliers.** Are they there? For example, sugar beet factories in Maine went bankrupt in part because farmers did not plant enough beets.
- **The industry.** Is there surplus capacity? A shortage of capacity? What is the distribution system?
- **Capital market.** How and at what costs and conditions can capital be raised?
- **Government and society.** What demands are society and government making on the firm?

In summary, the ability of the debtor to survive will be determined through the process of developing or attempting to develop a business plan. This decision might be expressed in terms of the factors that determine the viability of the business, including:

- Industry in which debtor operates
- Debtor's position in the industry
- Debtor's management
- Debtor's cost structure
- Debtor's capital structure

Stage 3: Design and Selection of Turnaround Strategy After an analysis has been made of the business, a strategy to turn the business around must be developed. The elements of an effective strategic plan are:

- Specific goals and objectives
- Sound corporate and business strategies
- Detailed functional action plans

Operating strategies generally focus on revenue increases, cost reduction, asset reduction and redeployment, and competitive repositioning strategies. It may be that a combination of strategies is needed to effectively turn the business around. Cost-reduction strategies usually produce results more quickly than revenue-increasing strategies. In some turnaround situations, the company, for various reasons, has lost its competitive position. For the turnaround to be successful, that competitive position must be reestablished.

As a part of the process of selecting a strategy to turn the business around, a business plan must be developed. Often a company does not have any type of business or strategic plan at the time it attempts to work out an arrangement with creditors out of court or in a chapter 11 proceeding. Up until the date the petition is filed, management has devoted most of its time to day-to-day problems and has not analyzed the major financial problems faced by the business. Management has failed to ask questions that are most important for the survival of the business, such as:

- Which products are most profitable?
- What are the strengths and weaknesses of the company?
- Which areas should be expanded? Liquidated?
- In which areas does the real potential for this business lie?
- Which direction should this business take?

The greater the financial problems, the more time management tends to devote to day-to-day details; thus, almost no time is spent on providing direction for the company. After the petition is filed, it is then frequently left to the bankruptcy court and the creditors to make strategic decisions that significantly influence the future of the business. They may decide which operations to eliminate and which products to discontinue. These decisions are made on a quasi-intuitive basis. For example, selected equipment may be sold or retained based on the influence of particular creditors rather than on the basis of an overall business plan.

To effectively turn the business around, it is necessary that the debtor develop a business plan. Once the business plan has been developed, it will serve as the basis for the development of a reorganization plan and will facilitate the process of obtaining creditor approval of the steps the turn-around leader wants to take. It is difficult to develop a viable reorganization plan without having developed a business plan first.

In rendering advisory services to help develop a business plan, the financial advisor examines all the available information, analyzes it (taking future prospects into consideration), and develops recommendations. These recommendations may involve closing unprofitable units, replacing poor management, changing the information system, and revising the marketing approach. Some of the recommendations are implemented while the company is in chapter 11 proceedings, and the effect is known immediately (e.g., closing some unprofitable operating units). Other strategic actions have very long-range effects, but still have an impact on the nature of the company as it comes out of the proceedings. A business plan allows all interested parties to have a better idea of which parts of the operations are salvageable and provides for better understanding of the plan proposed by the debtor.

Stage 4: Emergency Action Once a strategy or combination of strategies has been carefully selected, immediate action must be taken to start the process of turning the business around. The objectives of the emergency action stage are to:

- Take whatever actions are necessary to enable the organization to survive.
- Establish a positive operating cash flow as quickly as possible.
- Raise sufficient cash to implement the chosen turnaround strategy.
- Protect and develop the resources that will be needed for future profitability and growth.

The nature of the action that the turnaround leader takes will depend on the seriousness of the problems. The more serious the problems, the quicker and more decisive the action that must be taken.

Critical to the turnaround process is control of cash inflows and outflows and the elimination of negative cash flows from operations. Action must be taken immediately to ascertain the principal reasons for poor cash flows and to correct the problem as swiftly as possible. As noted earlier, an important part of the stabilization process is to eliminate the “bleeding” of the firm’s liquidity. Once the cash flows are stabilized, the turnaround leader must monitor the cash flows on a daily basis. There are several approaches to monitoring cash flows, including daily reports of cash inflows and outflows. Detailed weekly cash flow reports should also be prepared. Larger companies should have a centralized cash management system. The turnaround leader may want to see daily reports providing information critical to cash management. The nature as well as the type of report will depend on several factors, including the industry and type of company (service, manufacturing, etc.). For example, the turnaround leader might want to see daily reports on collections and goods shipped.

Zimmerman¹⁵ concluded that the three key factors in successful turnarounds are low-cost operation, product differentiation, and appropriate turnaround leadership. In this stage, attention must be given to each of these factors.

The following lists several types of profitability analysis that must be considered by the turnaround leader:

- **Contribution by segment or line of business.** In determining the profit by segment (i.e., division).
- **Contribution by product line.** Product lines that do not contribute enough profit for overhead analysis should be eliminated unless changes can be made to make them profitable.

¹⁵Zimmerman, *supra* note 10, pp. 12–14.

- **Contribution by products.** Even if a product line is profitable, the profit might be improved significantly if some of the products in the line were eliminated. Thus, it is critical in most cases to know the profitability of each individual product. Concluding that selected products, even though they are not profitable, should be included because they are the basis for other sales should not be accepted until proof has been presented. Some companies have improved profit considerably by eliminating a large percentage (as high as 60 to 80 percent) of their products. Often 20 to 30 percent of the products will contribute around 80 percent of the profit.
- **Contribution by customer.** A calculation of the profit made on each customer can be quite revealing. In making this analysis, all costs should be considered, from the time the orders are placed to the collection of the cash from the sales.

Some of the actions that are pursued during the emergency stage relating to the operations of the company include:

- **Eliminate unprofitable operations.** Operations that will not be part of the core businesses that will survive the turnaround should be shut down.
- **Reduce the workforce.** Most troubled companies have excessive labor costs, especially in nonproduction areas. Nonessential overhead and service-type costs must be eliminated.
- **Reduce inventories.** Many companies in financial difficulty have excess inventory and inventory shortages. Excess inventory is generally found in slow-moving finished goods and in raw materials of unprofitable products. Inventory shortages often exist in fast-moving items and in critical raw materials.
- **Control purchases.** Purchase only items that are needed immediately and arrange for delivery as they are needed. Move toward establishment of a just-in-time inventory system.
- **Increase productivity.** Find improved ways to manufacture the products, including the elimination of most costs that do not add value to the final product.

Most turnarounds will be unsuccessful unless the culture of the business is addressed—a company’s workers are also “turned around.” In the effort to stabilize a business, including eliminating inefficiencies to provide for the short-term survival of the organization, the needs of its employees often are forgotten. Special effort must be made to get all employees involved in the turnaround and to ensure they fully understand how their jobs relate to the turnaround efforts. For many troubled organizations, there

must be a change in the organizational culture. Some of the items that might be considered during the emergency stage include challenging and developing ways to change the status quo, rewarding those who change, and terminating those who do not adjust to changing needs.

Stage 5: Business Restructuring The major objectives of the business restructuring stage are to enhance profitability through more effective and efficient management of current operations and to reconstruct the business for increased profitability and enhancement of the value of the shareholders' equity.

Stage 6: Return to Normal The focus of the return-to-normal stage is to institutionalize an emphasis on profitability and enhancement of shareholder value; that is, to build within the organization controls and attitudes that help prevent the organization from reverting to its old ways. The organization must continue to look for opportunities for profitable growth and build the competitive strengths the business needs to take advantage of such opportunities.

BANKRUPTCY COURTS

Bankruptcy courts are federal courts with jurisdiction over cases arising under the Bankruptcy Code (title 11 of the U.S. Code). Technically, bankruptcy courts receive cases that are referred to them by the Federal District Court; thus Federal District Courts have power to retain jurisdiction over cases arising under title 11.¹⁶ Bankruptcy courts were established by the Bankruptcy Reform Act of 1978 and are divided into districts along the same lines as U.S. District Courts.

Appeals of a bankruptcy court decision go through the local district court or Bankruptcy Appeals Panel (BAP) first, and are then appealable through the Federal Circuit Courts of Appeals and finally the U.S. Supreme Court. Unless the interested parties request otherwise, appeals from the bankruptcy court will be brought to the Bankruptcy Appeals Panel, if a panel exists in the circuit in which the appeal is made. An appeals panel is generally composed of three sitting bankruptcy judges.¹⁷ The Ninth Circuit has had a bankruptcy appeals panel since 1980; the Bankruptcy Reform Act of 1994 provided that all circuits would establish appeals panels unless it can be shown that such establishment would be too costly. Over half of the circuits have established an appeals panel.

¹⁶28 U.S.C. section 157.

¹⁷28 U.S.C. section 158(b).

Core Proceedings

For a bankruptcy court to exercise its jurisdiction over a matter, the bankruptcy judge must determine that the issues to be resolved are *core proceedings*.¹⁸ Once an issue is determined to be a core proceeding, a bankruptcy court may issue decisions and apply nonbankruptcy law in the same manner as any other federal court. For example, if one of the claims in a chapter 11 case is for patent infringement, the bankruptcy court could effectively hold a trial on the issue of patent infringement within the ambit of a hearing on objections to claims. Likewise, the bankruptcy court may determine the tax claim that was owed to the IRS for a year ending before the petition was filed that is being contested by the IRS. This allows the bankruptcy court to settle most matters related to the estate in one courtroom. The following is a list of matters considered core proceedings.¹⁹

- Matters concerning the administration of the estate
- Allowance or disallowance of claims against the estate or exemptions from property of the estate, and estimation of claims or interests for the purpose of confirming a plan under chapter 11, 12, or 13 of title 11, but not the liquidation or estimation of contingent or unliquidated personal injury tort or wrongful death claims against the estate for purposes of distribution in a case under title 11
- Counterclaims by the estate against persons filing claims against the estate
- Orders in respect to obtaining credit
- Orders to turn over property of the estate
- Proceedings to determine, avoid, or recover preferences
- Motions to terminate, annul, or modify the automatic stay
- Proceedings to determine, avoid, or recover fraudulent conveyances
- Determinations as to the dischargeability of particular debts
- Objections to discharges
- Matters concerning determination of the validity, extent, or priority of liens
- Confirmations of plans
- Orders approving the use or lease of property, including the use of cash collateral
- Orders approving the sale of property other than property resulting from claims brought by the estate against persons who have not filed claims against the estate

¹⁸28 U.S.C. section 157(b).

¹⁹28 U.S.C. section 157(b)(2).

- Other proceedings affecting the liquidation of the assets of the estate or the adjustment of the debtor-creditor or the equity security holder relationship, except personal injury tort or wrongful death claims

The bankruptcy judge determines whether a matter is a core proceeding. Prior to the Bankruptcy Reform Act of 1994, it was felt that many chapter 11 reorganizations took much longer than necessary to reorganize, and as a result incurred excessive administrative expenses. The Act of 1994 attempted to resolve some of the causes of delay by providing for status conferences by the bankruptcy judge. Section 105 of the Bankruptcy Code provides that the bankruptcy court or any party in interest may move for a status conference and issue an order to expedite handling of the case, including the establishment of a date for debtor acceptance or rejection of executory contracts and leases. The Bankruptcy Reform Act of 1994 also modifies section 105 of the Bankruptcy Code to provide that, in a chapter 11 case, the bankruptcy court may:

- Set the date for the trustee or debtor to file the disclosure statement and plan.
- Set the date by which the trustee or debtor must solicit acceptances of the plan.
- Set the date for which a party in interest may file a plan.
- Set the date for which a proponent, other than a debtor, must solicit acceptance of a plan.
- Fix the scope and format of notice for the hearing for approval of the disclosure statement.
- Provide that the hearing on the disclosure statement may be combined with the hearing for the confirmation of the plan.

U.S. TRUSTEE SYSTEM

The U.S. Trustee program falls under the purview of the attorney general, who is responsible for appointing a trustee in each of the 21 regions of the country; where needed, assistant U.S. trustees are also appointed. The U.S. trustee then maintains a panel of private trustees able to administer estates under chapter 7 or 11. All federal districts are a part of the U.S. trustee system except for those federal districts in the states of Alabama and North Carolina.

Functions

The primary reason for the establishment of the U.S. trustee system was to eliminate some of the conflicts of the bankruptcy judges by separating the

administration of a case from its judicial aspects. This change was also designed to reduce the workload of bankruptcy judges, by placing many administrative and organizational duties in the hands of the U.S. trustee. Title 28 of United States Code section 586(a) sets forth responsibilities of the U.S. trustee for monitoring many aspects of case administration, especially those related to supervision and appointment. Among the functions mentioned are:

- To monitor applications for compensation and reimbursement for trustees, accountants, attorneys, and other professionals filed under section 330 of title 11; and, whenever the U.S. trustee deems it to be appropriate, file comments with the court with respect to any such applications.
- To monitor plans and disclosure statements filed in cases under chapter 11, and file comments regarding such documents.
- To monitor plans filed under chapters 12 and 13, and make appropriate comments.
- To take appropriate action to ensure that all reports, schedules, and fees required by title 11 and title 28 are properly and timely filed.
- To monitor creditors' committees under chapter 11.
- To notify the U.S. attorney of matters that relate to the occurrence of any action that may constitute a crime under the laws of the United States and, on the request of the U.S. attorney, assist the U.S. attorney in carrying out prosecutions based on such action.
- To monitor the progress of cases under title 11 and take action to prevent undue delay.
- To monitor requests for employment of professionals (including accountants and attorneys) and, when appropriate, file comments with respect to approval of such requests.
- To perform other duties prescribed by the attorney general.

Section 1102 of the Bankruptcy Code gives the U.S. trustee the authority to appoint creditors' committees and other committees of creditors or equity holders, if authorized by the bankruptcy court. The U.S. trustee will also appoint an examiner (if authorized by the court) and an interim trustee in both chapters 7 and 11 cases.

The professionals often interface with the regional offices of the U.S. trustee at the beginning of each case because the U.S. trustee will review all requests for retention, including the nature of the work and the rate of pay. Once the services have been rendered, and an application for payment (petition for fee allowance) is submitted, the U.S. trustee's office will review the petition. Also, because each region of the U.S. trustee's office has requirements regarding the nature, type, and timing of operating reports that must

be filed with the court, financial advisors should generally meet with the representative of the U.S. trustee prior to or shortly after the petition is filed.

BANKRUPTCY RULES AND FORMS

Bankruptcy rules and forms are approved by the Supreme Court and submitted to Congress for approval. Since the process began in 1973, both the rules and forms have gone through gradual evolution and refinement. The forms were changed significantly in August 1991, when a new set of forms was issued. Minor modifications have been made on several occasions, with the last update during the fall of 2001. The purpose of the rules and forms is to fill in the gaps (primarily procedural) left by the code and to create uniform application of the code throughout the country. The forms facilitate case administration by allowing practitioners and judges alike to quickly reference information in uniform schedules and motion forms.

Bankruptcy rules cover a wide variety of areas and give guidance interpreting the code and carrying out its provisions. While the code supplies the substantive law, the rules provide procedures such as: when and where to file, how to give notice, and how to liquidate the estate.

BUSINESS FAILURES

It may be difficult to determine the exact cause or causes of financial difficulty in any individual case. Often it is the result of several factors that lead to an event that precipitates failure. The fundamental cause may not be obvious from the evidence at hand. Therefore, it is important to “get behind” the symptoms of business problems to determine the underlying causes. For example, cash shortages are often only a symptom, not the underlying cause.

External Factors

External factors are those that managers cannot directly control; they must react to these factors. For example, many companies in the defense industry have suffered losses or failed due to major cutbacks in defense budgets.

Many financial advisors and turnaround executives suggest that the major causes of business failure are not external, but are in fact internally generated problems within management’s control. As would be expected, the number of business failures does increase during a contraction of economic activity. All recessions since the 1940s have resulted in an increase in the number of business bankruptcy petitions filed. During the economic turndown in the early 2000s, the number of chapter 11 filings by all companies—large, middle market, and small—increased significantly. Periods of high inflation have also been accompanied by an increase in business

petitions filed. For example, as the inflation rate increased in 1981 and 1982, the number of failures also increased.

Another frequently given cause of failure is intensity of competition, both domestic and foreign. Some new as well as old businesses fail because of inadequate ability, resources, and opportunity to successfully meet existing competition and to match the progressive activities of new and better-qualified competition. Likewise, businesses that fail in the transition to modern methods of production and distribution, or in adapting to new consumer demands, ultimately go out of business.

Business fluctuations as well as fluctuations specifically related to a particular industry often involve an adverse period marked by maladjustment between production and consumption, significant unemployment, decline in sales, falling prices, and other negative effects. Generally, a temporary lull in business is not a fundamental cause of business failure, although it often accelerates failure that is probably inevitable.

Bibeault summarizes the external reasons for business failures as follows:²⁰

- Economic change
- Competitive change
- Government constraints
- Social change
- Technological change

Management and Internal Causes

Management and internal causes of failure are those that could have been prevented by action within the business, often resulting in a significant mistake in a past decision or the failure of management to take action when needed. Listed here are some of the major management and internal causes:

- Poor management
- Undermanagement
- Lack of management depth
- Inbred bureaucratic management
- Unbalanced top management team
- Nonparticipating board of directors

Poor Management In many cases, individuals are appointed to management positions for reasons other than their qualifications. Poor management can exist because of incompetence, narrow vision, and lack of objectives and

²⁰Bibeault, *supra* note 11, p. 28.

discipline. Bibeault²¹ lists the following as the most common errors of poor management:

- ***Failure to keep pace with changes in the marketplace.*** In general, there is a human tendency to prefer the status quo and to seek short-sighted solutions to problems. Sales-oriented companies have a tendency to focus on sales when obsolete production methods may be the problem. Production-oriented companies where technological skills generate most sales may ignore the need to upgrade marketing efforts. These approaches cause management to take too narrow a focus.
- ***Lack of operating controls.*** Many companies have focused their marketing and manufacturing efforts on the wrong product or group of products because the cost information was inadequate. A cost system based on activity cost accounting could have helped management direct its efforts to the correct product or product line and eliminate those that are unprofitable. Companies have improved their profits considerably by selling those products that contribute the most to profits, in spite of an actual decline in sales volume. Although studies suggest that the lack of operational controls is not by itself a major cause of failure, at the same time, most failed companies do not have a basic control system. Similarly, many failed companies do not have an effective budgeting system, hence problems are also created when companies have adequate controls, but ignore them.
- ***Overexpansion.*** Many writers suggest that the number-one mistake made by declining companies is overexpansion. Overexpansion can be strategic through overdiversification in areas that are unfamiliar. As Drucker²² states, “[B]elief that the business that diversifies into many areas will do better than the business that concentrates in one area is a myth . . . Complex businesses have repeatedly evidenced their vulnerability to small but highly concentrated single-market or single-technology businesses. If anything goes wrong, there is a premium on knowing your business.” Operational overexpansion exists in companies that have internal growth problems. Many declining companies have focused on increasing volume at the expense of margins and profits. Bibeault²³ notes that, in the wrong context or in the hands of the wrong managers, seeking increased volume and share of the market can result in a “fool’s mate.” Obviously, growth as a goal is critical to the success of many companies. Growth as a strategy presents problems

²¹Bibeault, *supra* note 11, p. 49.

²²Drucker, *supra* note 14, p. 680.

²³Bibeault, *supra* note 11, p. 56.

when it results in the company exceeding its resources—managerial, financial, and physical. Studies tend to suggest that exceeding the managerial or human resources is the major cause of decline due to over-expansion.

- **Excessive leverage.** Excessive leverage was a major cause of the restructuring of large companies during the late 1980s and early 1990s. In addition to leveraged buyouts (LBOs), high debt can result from other factors, including inadequate initial capitalization, excessive shareholder withdrawals from the business, ongoing losses, and aggressive growth by acquisition or internal development.

Undermanagement Another cause of business decline or failure is undermanagement. Some suggest that undermanagement is a more prevalent cause of business failure than bad management. In other words, the failure is more commonly caused by inaction rather than bad action. Symptoms of an undermanaged company include no comprehensive and understandable business plan and strategy, a lack of timely decision making, high turnover of capable employees, limited knowledge about customers and market conditions, excessive corporate politics, and inadequate delegation of authority.²⁴

Lack of Management Depth One of the prime characteristics of the best-managed companies is management depth; in many corporations that fail, a common characteristic is lack of management depth.

Inbred Bureaucratic Management As organizations mature, it is not unusual for management to become entrenched, rigid, and unresponsive to changes in the environment. Signs of inbred management include:

- Low tolerance for criticism.
- Business is secure and stable, not venturesome.
- Limited capacity to meet unexpected challenges and problems.
- Old wisdom passed on to new managers; too great a focus on molding the minds of young managers.
- Adherence to old ways when confronted by new situations.
- Action taken without careful consideration to the consequences.

Unbalanced Top Management Team Some companies tend to focus on the background of their founders. For example, a high-tech company might have a management team consisting of engineers. Some attribute the failure of

²⁴Larry Goddard, *Corporate Intensive Care* (New York: New York Publishing Co., 1993), 18.

Chrysler during the 1970s to the fact that the top management team consisted mostly of engineers. Financial advisors and turnaround specialists have noted that unbalanced teams often lack a strong finance team.

Nonparticipating Board of Directors Many financial advisors and turnaround specialists suggest that, in most companies, the board of directors is not in a position to prevent a decline. However, an active board may be able to observe the need for change sooner than management, especially when a change in management is needed, and start the turnaround process at an earlier stage.

STAGES OF BUSINESS FAILURE

The general signs of businesses in financial difficulty include decreasing sales, slowing of sales growth, declining cash flow and net income positions, and increasing large debt. These factors cause marked deterioration in the businesses' solvency position. Businesses in this situation also experience higher-than-average major operating costs when compared to similar but successful firms. As the business experiences losses, its asset base also diminishes because assets are not being replaced. Accumulating losses and not replacing assets reduce the business' ability to operate profitably in the future.²⁵ Financial failure can be analyzed into at least three phases: incubation period, cash shortage, and insolvency. Many variables affect the progress and duration of each stage.

Incubation Period

Businesses do not become insolvent overnight. Any business experiencing financial difficulty will pass through several transitional stages on the way to filing a bankruptcy petition. During the incubation period, one or a number of serious problems may be developing quietly without being recognized by outsiders or, in some cases, even by management. Developments during the incubation period may include:

- Change in product demand
- Continuing increase in overhead costs
- Obsolete production methods
- Increase in competition
- Incompetent managers in key positions

²⁵Bibeault, *supra* note 11, p. 28.

- Acquisition of unprofitable subsidiaries
- Overexpansion without adequate working capital
- Incompetent credit and collection department
- Lack of adequate banking facilities
- Poor communications, especially with operating people

Economic losses often occur during the incubation stage; that is, the actual return realized on assets is lower than the firm's normal rate of return. At this stage, management needs to concentrate on what is causing the failure. Alternatives must be found if the causes cannot be corrected. If problems are recognized and acted on at this stage, the business will have a much better chance of survival, for several reasons. First, if replanning can be initiated at this stage, it will be much more effective. Next, correcting the causes of failure in the incubation period will not be as cumbersome as in a later stage. Finally, public confidence will not decline as drastically if action is taken during this early stage. This last point is critical because deterioration of public confidence will cause charges for funds to increase, and the business will be inclined to reject projects that could have been profitable.

In some circumstances, economic loss may not occur until the business enters the stage where a shortage of cash is experienced.

Cash Shortage

This stage begins when the business is unable to meet its current obligations. A business entity can have a desirable excess of physical assets over liabilities and a passing earnings record, but still be in dire need of cash. This problem occurs because assets are not liquid enough and the necessary capital is tied up in receivables and inventories. Often the business is unable to obtain funds to meet maturing and overdue obligations through customary channels. If the business is to survive, management is now required to contact a business or financial specialist to develop a plan to correct the underlying causes, meet with the key creditors and solicit their support, and attempt to locate additional financing. If the necessary infusions of new capital can be obtained, and appropriate steps are taken to correct underlying causes, a good chance still exists for survival, future growth, and prosperity. If additional financing cannot be obtained, action to develop an out-of-court workout or filing of a chapter 11 petition will generally render much better results at this stage than after the business deteriorates to total insolvency.

Insolvency

At this stage, management's goal of securing more funds by financing have proven unsuccessful, and total asset value is less than total liabilities. The

filing of a petition, voluntary or involuntary, under the Federal Bankruptcy Code, or seeking to develop an out-of-court settlement with creditors, confirms the insolvency process. Attempting an out-of-court workout or filing a chapter 11 petition is the business's only alternative to immediate liquidation. Unfortunately, firms that take these steps after reaching total insolvency have often passed the point of no return and are unable to reorganize.

DETECTION OF FAILURE TENDENCIES

To be effective, management cannot wait until total insolvency to take action. Several tools are available to detect evidence of business failure, but they may not find the cause of failure. Emphasis must be placed on finding and correcting the causes; it is inadequate to correct the symptoms. For example, a constantly inadequate cash flow is an indication that financial difficulties are developing, but the problem is not solved if management borrows funds without finding the real source of the shortage. In contrast, pinpointing and correcting the source of the cash shortage will put management in the position to raise sufficient cash and help prevent recurrence of similar problems.

Through the audit, preparation of reports, and the performance of other services, the business's independent accountant should be one of the first professionals to become aware of the tendencies toward failure in the activity in the major accounts and in the firm as a whole. Through training and experience, accountants should possess the insight to identify trouble and call management's attention to the warning signs. At this point, it is critical that the accountants insist that management take corrective action to turn the business around. In larger CPA firms, the auditors should involve firm members from the bankruptcy and reorganization areas and develop a plan to correct the debtor's problems. For smaller CPA firms, there is often an individual in the firm who specializes in turnaround work and who should be consulted promptly. In many situations, especially in larger firms, the auditors fail to realize that turning the client around can generate considerable fees for the firm and, at the same time, render long-term savings to the client. The nature of their routine involvement with the client, as well as the ability to provide specialized assistance, places the accountants in the best position to identify failure trends and help the client turn the business around.

Trend Analysis

Historical Data One of the most frequently used methods of internal examination to detect trends is to prepare the history of the financial statements over a period of years. Identifying a certain year as base, trend analysis of

the important accounts can be developed on a monthly or quarterly basis. Failure tendencies found in balance sheet trends involve the following:

- Weakening cash position
- Insufficient working capital
- Overinvestment in receivables or inventories
- Overexpansion in fixed assets
- Increasing bank loans and other current liabilities
- Excessive funded debt and fixed liabilities
- Undercapitalization
- Subordination of loans to banks and creditors
- Declining sales
- Declining gross profit margins
- Increasing operating costs and overhead
- Excessive interest and other fixed expenses
- Excessive dividends and withdrawals compared to earnings record
- Declining operating profit margins
- Declining net profits and lower return on invested capital
- Increased sales with reduced markups

Actual versus Forecast An effective way to evaluate the performance of management is to compare actual results with management's projections. Some aspects of the effectiveness of a corporation's management, based on publicly available information, can be evaluated by examining the plans described by the chief executive officer in management's letter accompanying the annual report, and comparing them with the actions that were subsequently taken. A trend may become evident, indicating that very few of management's plans were in fact implemented.

Among the comparisons that might be helpful are:

- Actual/standard costs per unit
- Actual/planned production
- Actual/planned fixed manufacturing cost
- Actual/budgeted gross margin
- Actual/planned sales volume
- Actual/planned sales and administrative cost
- Actual/budgeted capital expenditures
- Actual/budgeted research and development expenditures

The comparisons over a period of several years may reveal factors that will help identify the underlying cause of the company's financial problems.

Comparison with Industry A comparison of a company's operating results, financial conditions, ratios, and other characteristics, with those of companies of similar size in the same industry may indicate problem areas. This comparison measures the company against an industry norm. When using industry data for comparison purposes, however, the use of different accounting methods and practices, operating methods, objectives, ownership styles, and so on, all of which can impact the results, must be taken into account.

Industry data are available from several sources, including trade associations for the industry in which the debtor operates. Other general sources include Dun & Bradstreet and Robert Morris Associates. For example, the latter publishes, on an annual basis, key asset, liability, income, and ratio retailing, and service industries, as well as data from contractors. These data are presented for at least six different categories, based on the book value of the asset and dollar sales.

Analysis of Accounting Measures

In addition to trend analysis, certain ratios or accounting measures are indicators of financial strength. The current and liquidity ratios are used to determine the firm's ability to meet current obligations. Fixed asset turnover, inventory turnover, and accounts receivable turnover show the efficiency of asset utilization. The higher the turnover the better the performance, because a relatively small amount of funds will be needed in order to operate.

The stability of the relationship between borrowed funds and equity capital is set forth by certain equity ratios. The ratios of current liabilities, long-term liabilities, total liabilities, and owner's equity to total equity help assess the firm's ability to survive in times of stress and meet both short-term and long-term obligations. An adequate balance must exist between debt and equity. When the outsiders' interest increases, an advantage to the owners exists because of the benefit of a return on assets furnished by others. However, an increase in risk also occurs. Insight can be gained by analyzing the equity structure and the interest expense: the relative size of the cushion of ownership funds that creditors can rely on to absorb losses can be determined. Where unprofitable operations or a decrease in the value of the assets might be the cause of losses, profitability measures are useful in determining the adequacy of sales and operating profit. These ratios relate net income or operating profits to total assets, net assets, net sales, or owners' equity. Meaningful trends can be seen when the profitability ratios are compared to prior years.

Common ratios may be given several different classifications. Some analysts classify all of the financial ratios into either profitability or liquidity

ratios. Robert Morris Associates uses five basic classifications for their analysis:²⁶

1. Liquidity ratios
2. Coverage ratios
3. Leverage ratios
4. Operating ratios
5. Expense to sales ratios

Prediction Models

In a model prepared by Altman, five basic ratios were utilized in the prediction of corporate bankruptcy:

1. Working capital/Total assets (X_1)
2. Retained earnings/Total assets (X_2)
3. Earnings before interest and taxes/Total assets (X_3)
4. Market value equity/Book value of total debt (X_4)
5. Sales/Total assets (X_5)

The definition for the model is as follows:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + .6X_4 + 1.0X_5$$

The values for X_1 , X_2 , X_3 , X_4 , and X_5 are prepared by using the five ratios listed. A Z-score greater than 2.99 falls into the nonbankruptcy sector, while a Z-score less than 1.81 indicates bankruptcy. Z-scores between 1.81 and 2.99 are in the uncertainty area because of the possibility of error classification. Additional analysis by Altman suggests that a Z-score of 2.675 can be used as a criterion to classify firms as bankrupt or nonbankrupt. Some analysts use the 1.81 and 2.99 scores as the criteria where users have the greatest confidence, classifying firms with a Z-score between 1.81 and 2.99 as uncertain.²⁷

The relationship of the market value of equity to the book value of debt is the fourth variable in the preceding formula. Because it is difficult to determine the market value of private companies, this model was designed

²⁶RMA *Annual Statement Studies*, 1993 (Philadelphia: Robert Morris Associates, 1993), pp. 10–15.

²⁷Edward I. Altman, *Corporate Financial Distress* (New York: John Wiley & Sons, Inc., 1983) pp. 108, 119–120.

for public companies. According to Altman, the market value seems to be a more effective indicator of bankruptcy than the commonly used ratio of net worth to total debt.²⁸ Book value may be used when calculating the Z-score for privately held companies; however, if book value is substituted for market value, then the coefficients should be changed. Altman's research suggested the following revised model for private firms:

$$Z' = .717X_1 + .847X_2 + 3.107X_3 + .420X_4 + .998X_5$$

A larger area of uncertainty is created by the Z'-score, which indicates bankruptcy at a value of 1.23 (compared to 1.81) and nonbankruptcy at 2.9 (compared to 2.99).²⁹

Altman suggests that the bankruptcy indicator model is an accurate forecaster of failure up to two years prior to bankruptcy, with accuracy declining substantially as the actual lead time increases.

²⁸*Ibid.*, p. 108.

²⁹*Ibid.*, pp. 120–124.